

# InPACT 2013

INTERNATIONAL PSYCHOLOGICAL APPLICATIONS  
CONFERENCE AND TRENDS

## Book of Proceedings

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Madrid, SPAIN

Edited by:  
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## FOREWORD

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Dear Colleagues,

We are delighted to welcome you to the International Psychological Applications Conference and Trends 2013, taking place in Madrid, Spain, from 26 to 28 of April.

Our efforts and active engagement can now be rewarded with these three days of exciting new developments about what we are passionate about: Psychology and its connections. We take pride in having been able to connect and bring together academics, scholars, practitioners and others interested in a field that is fertile in new perspectives, ideas and knowledge. We counted on an extensive variety of contributors and presenters, which can supplement our view of the human essence and behavior, showing the impact of their different personal, academic and cultural experiences. This is, certainly, one of the reasons we have many nationalities and cultures represented, inspiring multi-disciplinary collaborative links, fomenting intellectual encounter and development.

InPACT 2013 received over more 338 submissions, from 37 different countries, reviewed by a double-blind process. Submissions were prepared to take form of Oral Presentations, Posters, Virtual Presentations and Workshops. The conference also includes a keynote presentation from an internationally distinguished researcher Prof. Howard S. Schwartz, from Oakland University, U.S.A.. There will be also two Special Talks, one by Michael Wang, Professor of Clinical Psychology in the School of Psychology, College of Medicine, University of Leicester and also Director of the Doctoral Clinical Psychology Training Course at Leicester, UK, and the other by Clara Pracana, founding member of Portuguese Association of Psychoanalysis and Psychoanalytic Psychotherapy, Portugal, to whom we express our most gratitude.

This volume is composed by the proceedings of the International Psychological Applications Conference and Trends (InPACT 2013), organized by the World Institute for Advanced Research and Science (W.I.A.R.S.) and co-sponsored by the respected partners we reference in the dedicated page. This conference addressed important topics in four main fields taken from Applied Psychology: Clinical, Educational, Social, Legal and Cognitive and Experimental Psychology. The areas can, of course, be object of discussion, but extended abstracts were presented in 56 topics within these fields of research:

- *Clinical Psychology*: Emotions and related psychological processes; Assessment; Psychotherapy and counseling; Addictive behaviors; Eating disorders; Personality disorders; Quality of life and mental health; Communication within relationships; Services of mental health; and Psychopathology.
- *Educational Psychology*: Language and cognitive processes; School environment and childhood disorders; Parenting and parenting related processes; Learning and technology; Psychology in schools; Intelligence and creativity; Motivation in classroom; Perspectives on teaching; Assessment and evaluation; and Individual differences in learning.
- *Social Psychology*: Cross-cultural dimensions of mental disorders; Employment issues and training; Organizational psychology; Psychology in politics and international issues; Social factors in adolescence and its development; Social anxiety and self-esteem; Immigration and social policy; Self-efficacy and identity development; Parenting and social support; and Addiction and stigmatization.
- *Legal Psychology*: Violence and trauma; Mass-media and aggression; Intra-familial violence; Juvenile delinquency; Aggressive behavior in childhood; Internet offending;

Working with crime perpetrators; Forensic psychology; Violent risk assessment; and Law enforcement and stress.

- *Cognitive and Experimental Psychology*: Perception, memory and attention; Decision making and problem-solving; Concept formation, reasoning and judgment; Language processing; Learning skills and education; Cognitive Neuroscience; Computer analogies and information processing (Artificial Intelligence and computer simulations); Social and cultural factors in the cognitive approach; Experimental methods, research and statistics; and Biopsychology.

The proceedings contain the results of the research and developments conducted by authors who focused on what they are passionate about: Psychology and its multi-disciplinary connections. It includes an extensive variety of contributors and presenters, who will extend our view of the human psyche and behavior, by sharing with us their different personal, academic and cultural experiences. This is certainly one of the reasons we have so many nationalities and cultures represented, inspiring collaborative links and fostering intellectual encounters.

There will be a special issue of the “PsychNology” Journal with full papers developed from selected conference papers and also a book with the best papers in extended versions.

We would like to express thanks to all the authors and participants, the members of the academic scientific committee, our sponsors and partners and, of course, to our organizing and administration team for making and putting this conference together.

Hoping to continue the collaboration in the future,

Respectfully,

Clara Pracana

Portuguese Association of Psychoanalysis and Psychoanalytic Psychotherapy, Portugal

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## KEYNOTE LECTURE

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### CULTURE AGAINST ITSELF: PSYCHODYNAMICS OF THE OCCUPY WALL STREET MOVEMENT

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#### Abstract

Among the forces that are shaping our turbulent times are political protest movements, such as Occupy Wall Street. OWS appears to be a protest of capitalism, but their expressions of what they are doing offer little in the way of economic analysis. Their critique is not economic but moral; capitalism is the bad object. The object of the critique is in the mind, but what is it? I analyze Communiqué #1, their purest self-definition, which reveals that they see us as living in a world of artificial images created by, and serving the interests of, malevolent forces: capitalism is the expression of these forces. I compare this to the movie *The Matrix*, which sees us as living in a similar world, except that the malevolent forces are not capitalism. I compare these with the Cave allegory in Plato's *Republic*, which is similar, except the artificial images are not expressions of malevolence. I use psychoanalytic theory to argue that the malevolent object of OWS' critique is the father, who, in fulfillment of the paternal function, forces socialization upon us. The world of artificial images is culture, seen from the standpoint of alienation. I reinforce the claim that the object of their antagonism is the father and the paternal function by analyzing their repudiation of guilt, the psychological foundation of social order.

**Keywords:** *Capitalism, Occupy Wall Street, The Matrix, The Oedipus Complex, Socialization, Debt.*

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#### The Question of Capitalism

Political protests in our time are certainly widespread, but it not always clear what they are protests of. Take the Occupy Wall Street movement as an example of the genre. If one wanted to use one word that would identify its focus, one would probably say that it was "capitalism." Together with its avatars, such as the banks, the one percent, finance, globalization, and so on, this is a concept that represents the malevolence that the movement poses itself against. But if one tries to move from defining capitalism broadly to defining it precisely, one quickly finds that one gets little help from the writings of OWS.

We think of capitalism as an economic system, encompassing private ownership of the means of production, wage labor, and so on, but objective definitions of capitalism are rarely encountered in the self-expressions of OWS. In fact, economic parameters hardly appear at all, much less as focal points of criticism.

This does not necessarily go with the territory. Protest movements based on Marxism, for example, rely on what Marx put forward as a scientific, empirical, objective theory about the nature of capitalism. Within that theory, the normal workings of the capitalist economic system would lead inexorably to the system's demise. One may think well or ill of the theory he offered, but there can be no doubt that it was intended to be an objective understanding of its subject matter. And one can be in no doubt that the revolutionary communist movements to which it gave rise, beginning with the Bolsheviks, incorporated that presumption (see, for example, the writings of Lenin). Yet in the protest movements of today, most notably the Occupy movement, these kinds of objective, theoretical considerations are absent.

This raises a question. If we take it for granted that the focus of these protest movements is capitalism, but they are not thinking of it objectively as an economic system, how

are they thinking of it? In other words, what are these critics, in their own minds, critics of? What does capitalism mean to them?

To answer that question, I looked at some of the written material produced by one of these protest movements, the "Occupy" movement, that began in New York City as "Occupy Wall Street" and then "went viral" as is said, popping up in various places not only in the US but generally in the Western world. I looked at their expressions of what they are about, particularly in the form of the documents posted in their name at the websites <http://occupytheory.org/> and, more selectively, at <http://www.adbusters.org/>, which is the website for *Adbusters*, the magazine that initiated OWS.

In an exercise of this sort, one quickly comes to the question of whether specific material is central to the issue one is trying to understand, or peripheral to it. In this case, that distinction becomes especially difficult to make because OWS was seized upon by a variety of political groups, generally on the left, each with its own ideology, who attempted to co-opt OWS and bring it into their orbit. It was therefore presented through a range of political perspectives.

I am going to suggest, however, that there was an underlying idea that could be said to represent the meaning of OWS and through which we can recognize a specific identity

I will look at the meaning of capitalism within the context of the idea OWS has of itself and what it is doing. I will argue that, insofar as OWS is directed against capitalism, capitalism, as they understand it, is not an economic system, but a moral one; and a moral system that runs far more deeply than any merely economic system ever could.

Using psychoanalytic theory, I am going to try to understand this underlying meaning. My conclusion will be that what they have in mind is culture as such, which Lacan (1954-5) referred to as the "big Other", the symbolic order, which expresses the meanings of any economic or social system, but which has increasingly been rejected in our time. OWS is alienation expressing itself politically.

### **First approximation**

Looking at their documents and trying to understand what they are against, a number of things come to mind. First is that the focus is very diffuse. The term capitalism is often used by those who identify with the movement and are recognized by it as one of themselves, such as Žižek (2012), who addressed the General Assembly and then built that address into a book. But, as I said, it is generally not used to denote a clearly defined economic system, and nothing else takes a place that would anchor a specific meaning. Hence the meaning of the term varies broadly. Along the same lines, capitalism is rarely seen as something standing by itself, with an independent, objective existence, as an economic system would have. Rather, it is typically seen as an instrument, a way of affecting the world through which some very bad people operate.

Who those people are is, again, designated broadly. They are referred to, of course, as the capitalists, but also as the 1%, the bankers, Wall Street, the bosses, financial capitalists, millionaires and billionaires, and so on. The products of the use of this system by these bad people are immoral conditions that are also specified broadly: injustice, oppression, inequality, and so on. But however their focus is specified, and at whatever level, one thing that is constant is the idea of its malevolence. Indeed, it is seen, not just as a malevolent force, but as a force that is malevolent in its essence.

It therefore makes sense to consider the object of their protest as something that relates to the capitalist economic system in some way that is structurally undefined, but that is not something with an objective definition. It is not by happenstance that it is controlled by bad people and does bad things; that is its defining characteristic. Its essence, that is to say, is moral. We must give it a name. We'll call it the Thing.

For psychoanalysis, the Thing represents something that is very common. It is called the "bad object." Its essence is to be bad. That is not to say that it does not do anything good, but only that when it does something good, it has been forced to do so by good forces, as when the 99% force changes in the law that benefit the people.

The idea of the bad object is a derivative of what Melanie Klein called the "bad breast." This is a way in which the child experiences the bad aspects of its mother, in what she calls the "paranoid-schizoid" position. Klein's claim is that, through the activity of "splitting," the child separates the good and bad aspects of its experience with mother by thinking of her as two mothers: a good breast and bad breast. In this way, the child is able to preserve the perfect goodness of the good breast, which it needs in its condition of helplessness and therefore absolute dependence on its mother. As the child becomes more capable of engaging the world, it ceases splitting the two figures and comes to see them as one, which has good aspects and bad aspects. This inaugurates what Klein calls the depressive position.

Since the bad object arises from splitting, there must be a good object, a good mother, in the neighborhood. Of course there is, and it consists in the movement of which they are part, which they idealize exhaustively. Within the context of their movement, they are loved for being who they are and are free to do whatever expresses who they are. This extends to their various manifestations, most importantly their General Assemblies, which serve as their collective discussion venue and decision making function. The General Assembly, with its lack of hierarchy, its inclusiveness, and especially its spontaneity, is taken as a prefiguration of the hoped for future, in which it will function as a structural element (e.g. Hardt and Negri, 2012).

As a good object, this movement is in essential opposition to the bad object, which is capitalism as a first approximation, but is actually something deeper, which we call the Thing. We'll now try to get a handle on the meaning of the Thing, taking into consideration its unconscious as well as its conscious elements.

## What is The Thing?

As an expression of what the protestors are against, one bit of writing stands out from the others; one that cannot be the product of co-optive forces. This is an unsigned document\*, amounting to a manifesto, entitled *Communiqué #1*, which appears on the website *occupytheory.org* as the lead piece in Issue 1 of a publication called *Tidal: Occupy Theory, Occupy Strategy* dated December 2011. I will quote from it extensively.

It begins:

We were born into a world of ghosts and illusions that have haunted our minds our entire lives. These shades seem more alive to us than reality, and perhaps by some definition are more actual, hyper-real. We grew up in this world of screens and hyperbole and surreal imagery, and think nothing of a long-dead actor appearing on a wall in our homes to urge us to buy or live a certain way.

We have no clear idea how life should really feel ... We sense something is wrong only through the odd clue.

In this, they find themselves different from most of the people around them:

Some generations ago, we might have all been burned, perhaps rightly, as witches. After all, who knows where these images really come from?

We notice a vague spiritual nausea, hard to discuss in a world where most serious, hard-working people have little time to believe in the existence of the soul. The ghosts that come to us offer no vocabulary to describe the emptiness they helped create within us.

They associate this "world of screens and hyperbole and surreal imagery" with advertising, but this is a metaphor for the whole setting in which they live. Their lives, that is to say, are ordered by these images, and are therefore controlled by the economic forces within which the images play their parts, and by Wall Street, the people they see controlling those forces, who make use of them for their own nefarious purposes:

At Wall Street we see that the basic quantum of experience has become the transaction; that life's central purpose is to convert all of existence into tradable currency. The

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\* Note that for an organization like this, which sees itself as having a collective identity, an authoritative statement is more likely to be unsigned than signed, since it could not be taken to be the view of a single person. This, of course, creates the possibility of somebody knocking off just any old thing, and having it taken as authoritative. This is an instance of a more general problem, which we will engage later.

significance of the phantoms from our childhood becomes clearer. We understand them as souls detached from their former selves and meanings, and reduced to messengers. They were sent to us by people intent on grounding life into a hoard-able quintessence, who have urged us merely to buy and "do our part" in the constant monetization of life.

And

It all seems to be of a part: the images crowding in on us as cheap and lifeless as the products they represent, built in factories owned by hollow men trying to fill their emptiness with mansions and treasures that they drained from us. In so doing they make the rest of the world as dark and dead as they are.

But they are having none of it:

We have come here to doubt and to dispute that plan.

And:

We have come to Wall Street as refugees from this native dreamland, seeking asylum in the actual. That is what we seek to occupy. We seek to rediscover and reclaim the world... We have come here to vanish those ghosts; to assert our real selves and lives; to build genuine relationships with each other and the world; and to remind ourselves that another path is possible.

"Another path is possible," but what would it consist in? Our protestors offer little specific direction, but a general principle is evident. They will "assert our real selves and lives," and "build genuine relationships with each other and the world." These are presumably the opposite of the world they find themselves in.

### **Another comparison**

As I have suggested, the critique they offer is a critique of an economic system but it is an economic system that is much broader than we usually mean. An economic system, as we usually think of it, is part of our lives, but only one part. Our identities go beyond what we do for a living, or buy, and how that is arranged. We can imagine moving from one economic system to another while remaining who we are. In the OWS world, that is not a feasible conception. The economic system is not something that we use, but that uses us. The terms in which we conceive our lives and make sense of what we do are given to us by the economic system, which is controlled by, and in the interest of, hollow, dark, and dead men to whom they collectively give the name "Wall Street." Wall Street sees our lives only as chains of transactions whose goal is to turn us into their currency.

The only reality that stands outside these fictions consists in the residues of our childhoods, before we got caught up in the economic system. These are who we really are, and the protestors have gathered at Wall Street to reclaim their real selves and to build a new world based on authentic relationships with real others.

Put this way, we can see that while we may refer to their view as a critique of an economic system, the critique itself is not economic but existential.

Reading *Communique #1* reminded me very strongly of a film that appeared in 1999 called *The Matrix*. I rented it and watched it.

### **The Matrix**

In this film\*, the main protagonist is a computer programmer named Thomas Anderson, who is told by his employer that he has "a problem with authority" and had better get with the program. But Anderson also has a clandestine identity as a hacker named Neo. He is contacted by a group of outlaws, led by a man called Morpheus, who reveal to him that the world in which he thinks he lives is an artificial framework of illusion called the Matrix. It was created by machines who originally were the outgrowth of Artificial Intelligence, but who came to

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\* The success of *The Matrix* led to the production of two sequels, released in 2003, as well as video games and comic books. For the purposes of this analysis, the first movie will be considered by itself.

dominate the humans who had created them. The actual humans spend their lives in pods, with tubes and cables leading in and out. They are senseless to their actual surroundings, their minds kept engaged in the illusions that they think are their lives. In fact, they are nothing but a source of energy for the machines. Morpheus explains:

What is the Matrix? Control. The Matrix is a computer generated dream world,  
built to keep us under control in order to change a human  
being into this.

[Morpheus shows Neo a battery]

The outlaws are the only ones who live in reality, and Neo chooses to join them, for no other reason than the pursuit of the truth.

Reality, which Morpheus refers to as "the desert of the real," turns out to be a very grim and barren place, entirely without amenities. The humans, in an early attempt to deprive the machines of energy have polluted the sky. The world is now so cold that humans can live only underground, near the earth's core, where there is heat. Everything is ugly. The food is tasteless and monotonous. Aside from the technical and physical prowess they have developed, the outlaws do not appear to have anything except the truth and their own relationships to each other.

The only meaning their lives seem to possess is given by their struggle to defeat the machines and free the humans from their illusions, a task that has hitherto been impossible since the hegemony of the Matrix is defended by a powerful, interchangeable, group of "Agents" named Smith, Jones, and Brown. In addition to their coercive power they have also the argument that the Matrix is the real reality, in addition to being far more appealing. This argument was sufficient to persuade one of the outlaws, a man whose outlaw name is Cipher, who betrays the group.

Morpheus is captured by the Agents, but in the end is rescued by a heavily armed Neo, now recognizing himself as The One who is destined to save humanity. In the movie's ultimate scene he directs a message to the forces of the machines:

Neo : I know you're out there...I can feel you now. I know that you're afraid. You're afraid of us, you're afraid of change...I don't know the future...I didn't come here to tell you how this is going to end, I came here to tell you how this is going to begin. Now, I'm going to hang up this phone, and I'm going to show these people what you don't want them to see. I'm going to show them a world without you...a world without rules and controls, without borders or boundaries. A world... where anything is possible.

## **Comparing the Thing and the Matrix**

The reason the Thing reminded me of the Matrix is clear. As metaphors, they are essentially the same, and it is on the level of metaphor, emotional reality, where their importance is located. In both cases, most people live in a world of created illusions, which are deliberately created by malevolent others. In one case these others are "hollow men," "dark and dead." In the other they are machines. In neither case do these others have any regard for the human beings whose lives they control through these illusions, which they have created to serve their own purposes. Their purpose in one case is to use the humans as a source of energy, as batteries. In the other, which may also be considered a source of energy, the purpose is to use the people to keep the system moving through production and consumption, in order to "fill their emptiness with mansions and treasures that they drained from us."

But in both cases there is a band who have broken free of these illusions and live in reality. They have returned to their authentic identities and are members of a group who share the collective purpose of rescuing the people from their illusions. The free people aim to defeat the dominating others, but in the interim their existences are stark and difficult. Their only rewards are the authentic relationships among them and the sense of purpose that they gain from their struggle. The terms in which this story is put differ, but the emotional correlate is the same.

Those are the similarities. But there are also differences. The most important difference is that one of them is an economic system, the other is not; the Matrix is a power plant. The importance of this, I suggest, is that it reveals that the Occupy movement is *not essentially an*



*attack on an economic system; not a critique of capitalism.* It is the emotions that these stories evoke that is primary, not so much the stories that evoke them. These emotions are the same, and the power of their critique derives from what they have in common.

These images may or may not have arisen independently. For our purposes, the origins of the images do not matter. What is important is their meaning.

To be sure, the likelihood is that they were not independent; the image of the Thing was probably influenced by the antecedent image of the Matrix. The latter was, after all, a very popular movie. It is extremely unlikely that it was not seen by a substantial number of those who came up with the vision of the Thing. On this assumption, the minds of the people who were to become the Occupy movement were captivated by the image they encountered in the film; they found themselves resonating with it. It impressed them as saying something important about the world they lived in, and sufficiently important that it stayed with them. But it would have been equally important if it had originated with them.

Whatever it was about that image, it was sufficiently central to the way they saw the world that when they came to make a statement about what they really believed, in the course of committing the action that was the most important thing in the world to them, the image was the core of it.

And that was not a vision of the way an economic system functions. It was a vision of being controlled by malevolent others, whose instrument is their control of the way we see things and, hence, how we live our lives. Both of these fictive worlds are built on the illusion that our ideas are our own products. But in fact, this vision goes on to say, those ideas are crafted for us so that we serve the purposes of those who create the ideas.

And yet, the visions continue, despite the resistance of the controllers, it is possible to see things as they really are. In that way, we can reclaim our real identities, from which we were lured away by the illusions, and re-establish an authentic life. This authentic life will not offer much comfort or amenity, and will even be dangerous, but it will be our own and will have a higher morality embedded in it: the morality of freedom and self-determination, and the possibility of a collective morality in the political struggle to free our fellow humans from their enslavement.

So how does capitalism fit into this? Capitalism, evidently, is just the symbolic framework; the language, so to speak, through which we conceive of the underlying reality of oppression. It is the conscious content through which we try to comprehend something that is inherently unconscious. It could be done without entirely, while losing nothing that was essential.

And of course, if the Occupiers theory of capitalism is only an inadequate way of comprehending an underlying reality, the same may be said of the idea of being under the control of machines that have been spawned by a runaway Artificial Intelligence. It's just that we would never take such an idea literally.

But if the Thing and the Matrix are merely metaphors for an underlying reality, what is the underlying reality? This is, of course, a question that we cannot answer directly, but what we may be able to do is to shed some light on it by comprehending how it came about that we have it, and in that sense what it means.

Before we do that, however, I want to compare the Thing and the Matrix with a third system of illusion that does not arouse the same opposition. This is the system that Plato imagines in his allegory of the Cave.

## **The Cave**

In *The Republic*, Plato (c. 380 BC) asks us to consider a world in which the people live all their lives in a cave, chained to a wall, facing forward, and unable to change the direction of their gaze. Behind them, others pass back in forth in front of a fire that casts their shadows on a wall in front of the enchained people. The result is that they see nothing but shadows, and, since they see nothing else, they believe that the shadows constitute reality.

Now, one of the people is freed from his chains, so that he can see and move where he wants. At first, he sees the fire and the figures around him, but he thinks that these are illusions

and that the shadows to which he has been accustomed are reality. But he is forced out of the cave where gradually he comes to see the world and finally the sun, and he comes to understand that the world of visible objects in the world outside the cave is reality. Pitying the people he has left behind, he goes back into the cave, where he becomes, no doubt, like the people who first brought him to the light, and tries to convince the cave dwellers that they are living in illusion and should come into the light and see reality. But the people in the cave are committed to the idea that the shadows are reality. They note that he cannot see the illusions anymore and think him a fool. They say that going out of the cave evidently makes someone a fool and that they will kill anyone who tries to follow.

He really doesn't like the chore of bringing enlightenment, but he feels it is his obligation, so he makes it his work; he becomes a philosopher.

So here we see the same idea of the symbolic world as a system of illusion from which one can escape and see things as they really are. So far, the parallel with the Matrix and the Thing is perfect. But there is one thing that is missing, and that is the idea that all of this was created as an expression of evil intent.

Plato does not at all consider the question of who chained the people to the wall in the first place, nor does he say anything about their moral character or their intent. And he does not suggest that the returning philosopher will be resisted by these chainers. Yet he wrote the story in order to make a point. If that had been the point, it would have been part of the story. If he had meant to say so, he would have said so. It isn't as if, if that were his point, he could have forgotten it.

Now, Plato understands, and says, that news of reality would be felt as a threat by those who live within the illusion, and that there would be an antagonism between the system and the philosopher who escapes and sees reality. But this antagonism is explained entirely by the anxiety of those within the system, who are ignorant, not evil. We simply do not see in Plato the idea that the world of illusion is the product of evil.

I think the conclusion we must draw from this is that the idea that we live in a world of illusion, and the idea that this is an expression of evil intent, that it is imposed by an evil force, are separate. One can have the first without the other.

What we need to do, therefore, is while staying with the premise of created illusion, to explain why this is seen in some cases as an assault, while in the other it is not.

For that purpose, I will turn to psychoanalytic theory, where an explanation of this emotional differentiation is readily available. It lies in the dynamics that we go through in the course of becoming, or not becoming, socialized members of the society.

## **The Oedipus Complex**

The central focus of the psychoanalytic conception of social life is the Oedipus Complex. It involves a number of stages. In the first, we speak of a state in which the child is emotionally fused with mother, who loves him and is the world to him, the child then seeing the mother as omnipotent and totally loving. The result is primary narcissism, in which the child experiences himself as being the center of a loving world. But this cannot last, because the world, reality, is not its mother. It does not center around us, and it certainly does not love us.

The usual pattern, for Freud, is that reality is first present to the child in the person of the father. He has a relationship with mother that does not revolve around the child, and prohibits the child from having what he desires most. The child hates him for this and wants to kill him, getting back to the world in which he was fused with mother, marrying her -- and resuming his position at the center of a loving world. This would mean a return to primary narcissism.

But killing the father and marrying mother is not a likely resolution of this tension. The father is big and the child is small, and if it comes to a conflict, it is the father who will kill the child. In fact, he does not even have to kill the child, but only to castrate him, and that will end the rivalry. What is the child to do?

Well, in the classic case that Freud described, which may be called Oedipal psychology, things work out rather nicely. The child makes his peace with the father by idealizing him and

internalizing him, and undertaking to become like him. The implicit promise is that, if he becomes like father, he can have someone like mother and become again the center of a loving world as, in his imagination, the father is. This fantasy of again becoming the center of a loving world, fusing again with the loving mother who is the world, of attaining again the status of primary narcissism, is called the ego ideal.

The father has gained his place with mother through his accomplishments. He has earned a place in mother's love by doing something that she values enough to keep him around. Ultimately, this involves creating a boundary around the family so that harsh reality can be kept out, so that mother's love can prevail within. Becoming like him means creating one's own accomplishments.

This involves taking into himself and making for his own the way the father defines himself and, hence, the way he understands the world, and the way he gives a direction to his life. These include the rules, norms, obligations, and common understandings that define the world and tell us how to operate within it. All together, this means identifying with what Lacan calls the big Other, the symbolic order, or culture.

The key to this is what psychoanalysis calls the *paternal function*; the function of establishing a stable framework of meaning. The core of the paternal function is what I call objective self-consciousness, which does not mean that you learn to see yourself as you really are, but rather that you learn to see yourself as an object, the way others would see you who are not emotionally connected with you. In other words, we all learn a way of understanding people, including ourselves, that is common to all members of the society; a view of ourselves within which we, as members of the society, are just like everybody else.

The creation of this objective framework of understanding is the basis upon which the whole range of the fathers' accomplishments, speaking collectively, has been made possible. It is what makes it possible for us to reliably predict the behavior of others, just as they predict ours, to coordinate our behavior with others, and to create new social structures that are able to serve us in the pursuit of, not only our common, but our individual goals; so that each may strive toward the ego ideal in his own way.

Now, we never reach that point; we never become the ego ideal, but through this process we gain a context, a set of narratives, in which we can locate our lives, a sense of direction, a set of moral principles that will guide us in our pursuits.

The point is that the idea of returning to being the center of a loving world is a fantasy; one can never attain it, but it is an important fantasy, since it gives meaning to work, organization, and whatever other institutions in society in which we participate in the attainment of socially approved goals. In other words, it is the psychological basis of social life.

If we manage this successfully, our life has hope, which is the belief that the ego ideal can be obtained. That's as good as it gets.

What we can see from this is that the classic psychoanalytic account of socialization takes a similar view of the nature of social reality as we find in Plato. As I have said, psychoanalysis sees us spending our lives in pursuit of the ego ideal, which is a fantasy of being again one with mother. The pursuit of the ego ideal is a matter of "becoming like father," which means acting within the social reality, the big Other, in Lacan's terms, that the father represented and transmitted. Acting in accordance with our social reality always envisions a goal, under which, deeply or shallowly, lies the ego ideal.

Yet since we never get to the ego ideal, *this means that the structure of social reality, culture, the symbolic order, or whatever you like, which had the attainment of the ego ideal as the premise of all the behavior it defined and promoted, is a framework of illusion, in just the same way that the Matrix, the Thing, and the Cave are frameworks of illusion.* The difference is that, as in Plato, this framework, culture, is not seen as the product of malignant forces.

In a word, socialization means the induction into a world of illusion. Our question becomes how do we account for the experience of this illusion as a the expression of a hostile force in the Thing and the Matrix, while it is a benign one in the Cave and in Oedipal psychology?

## The Anti-Oedipal

For that purpose, let us note that the transition into sociality that is portrayed in the Oedipal case depends on the premise of a good relationship between mother and father.

But what if the relationship between father and mother is not one the child would want to have? What if, for example, the mother has contempt for, or disdains, or even hates the father? Suppose she identifies with the image of herself that the infant possesses: of omnipotence and benevolence. Then, compared to what she could accomplish, the father's achievements would be like nothing. The boundary he created around her and the family would seem to be a trap. Its purpose would not be to keep harsh reality out, but to keep her boundless love contained within.

Under those circumstances, the father would not be seen as having earned mother's love, but as having taken her by subterfuge and lies, if not by sheer force. Then the child's idea that he will gain mother's love, the ego ideal, by becoming like the father is undermined. The father does not really possess mother's love, but only her body and her various services. If he has her love only on the basis of false pretenses, that means she does not really love him, the person he really is, at all. In that case, the accomplishments that supposedly earned mother's love come to be seen as cynical ploys to get him what he wants, depriving the rest of us. The rules, common understandings, obligations, and so on that made his accomplishment possible are only the structures of his oppression. Following the rules will make you as hateful as he is. You may gain the signs of love, such as money, prestige, and so on, but you will not gain its substance; your life will be empty.

Properly understood, the route to goodness does not lead to the future, but to the past. Taking as our guide the mother's disdain for the father, we will expel him from his place within the family. Then, mother's love will return to its proper object, which is us. In doing this, it is necessary to keep our vision clear and our motives pure. We must reclaim what remains of ourselves before socialization took us away from the dead end journey of following the father, or we must return to that state. This is our authentic self, and it is the proper object of mother's love.

What is happening here is that socialization comes to be seen as induction into a criminal enterprise. The rules and common understandings are not seen as ways for the individual to satisfy his real desires, but means by which the malevolent father traps those individuals into becoming as warped as he is, validating and magnifying his power.

What it produces cannot help but be corrupt and destructive. And the more it builds itself, the more powerful it becomes, and therefore the more destructive, and indeed the more inescapable. Following it means destroying and betraying ourselves.

But, the alienated person says "enough!" I'm outta here. I eschew the sense of direction that socialization, the father's stories, puts before me and build my life around getting rid of the malevolent father and destroying his corrupt and destructive works. That is the only course of action that is open to an authentic human being.

Fortunately, in his mind, it is sufficient. The choices it offers are choices in the real world and I undertake them in freedom. Nor am I alone. I have the company of others who have chosen the same course, and the relationships that I have with them will be real and authentic relationships.

To understand what this comes down to, remember that the premise of becoming like the father involves the adoption of a view of ourselves within which we, as members of the society, are just like everybody else.

We can see that there will be a conflict here with the way we are oriented toward the world under the aegis of the mother. She, and here I should recall that we are not talking about a real mother, but a very primitive conception of the mother, loves us entirely, exactly as we are, and in the fullness of our unique being. Anything that we do will be perfect. We need not worry about running afoul of the world, because we are its center; the meaning of the world is to validate us. We are connected to the world, in Chasseguet-Smirgel's felicitous phrase, as if by an umbilical cord.

When we say that the mother hates the father, and that we join her in her disdain, what we are implicitly saying is that we choose a vision of the world in which we can do exactly what we want, without being subjected to limitation, and in which this behavior will be guaranteed by the mother, the most powerful figure in the psyche.

This, at the deepest level, is what anti-oedipal psychology, the repudiation of culture, which is exactly that limiting frame of reference, comes down to. From this analysis, we can understand its appeal. It leaves us with the sense of being the center of a loving world with which we began life in the condition of primary narcissism. We do not, as in the father's world, have to "make something of ourselves" within the common framework if we are to "be somebody." We are of cosmic significance already, not because of what we have done, but simply because we are who we are. Who would give that up?

And who would not hate the father for trying to get us to give it up?

## Welcome to Zucotti Park

Anti-oedipal psychology is against culture and its product is alienation.

By alienation, I mean, following Keniston: "the rejection of the roles, values, and institutions [the alienated individual] sees as typical of adult American life" (p.25). But, of course, the reasoning I use here permits generalization. As I use the term, the objects of rejection are the roles, etc., that are seen as typical of adult life in any society.

The worlds of created illusion seen in *The Matrix* and *Communique #1* are culture seen from the standpoint of alienation. It is clear enough why. If I identify with the infantile self that exists before socialization, then any action taken within the framework of culture vitiates me and detracts from my expression of myself. It must be something that I have done against my authentic desire, and therefore must be something that I have either been forced or tricked into. How could I ever have imagined that it would compensate me for the loss of the greatness with which I began?

The evil figure who created and controls this symbolic monstrosity, for the purpose of stealing mother's love, is the father. He and the system that expresses him, are the bad object. Its badness consists in depriving us of love.

In the Occupy case, that bad object is identified as Wall Street, which refers to the father and the father's system, capitalism, which expresses him and that seeks to extinguish us, causing us to lose our specific identities and become parts of the system. But the problem is not located in the specific qualities of the system. Any culture is a pre-existing system that we have to fit into, and therefore poses constraints to our authentic and spontaneous expression, and to our sense of cosmic importance.

We can see this most clearly at the end of the Matrix, when Neo issues his threat to the machines:

I'm going to show these people what you  
don't want them to see. I'm going to show them a world  
without you...a world without rules and controls, without  
borders or boundaries. A world...where anything is  
possible.

## Strike Debt: An Application

The theoretical development I have offered can in no way be called a proof. It proceeds from a premise that arises solely from the imagination. It reaches a point that may be interesting, but that can certainly not be regarded as firmly established. I would therefore like to build up the case by showing how the theory helps us to understand a major current in the politics of Occupy Wall Street, the movement to abolish debt.

As we have seen, the paternal principle and objective self-consciousness create the structure of society. They create impersonal rules that apply to everyone and make us comprehensible to one another. Perhaps the most fundamental of these are rules that govern exchange relationships and specifically what Gouldner has called the *norm of reciprocity*: "You



*should* give benefits to those who give you benefits." From the norm of reciprocity derives the concept of indebtedness that applies to exchange relationships that have not been balanced yet by the reciprocation of benefits. For Gouldner, it is the emotional glue that holds otherwise distant members of the society together; indeed, it makes society possible.

Exchange operates through our infliction of guilt upon ourselves for violation of the norm of reciprocity. This is certainly one aspect of what Freud had in mind when he claimed, in *Civilization and its Discontents*, that the feeling of guilt is the psychological force that underlies civilization (Kultur). Nietzsche says basically the same thing when he points out the kinship between the German words for guilt (schuld) and debt (schulden) and he goes a bit further in maintaining that this is the basic mechanism of exchange, which is the root not only of all social order, but of thought, the symbolic order, and culture itself.

Within this line of reasoning, it follows that the repudiation of the norm of reciprocity and the related concepts of indebtedness and guilt constitute assaults upon the very possibility of society and culture.

Yet that repudiation is very close to the center of the political program of Occupy Wall Street.

This takes the form of an offshoot of OWS called Strike Debt, whose views are expressed in three articles in the third issue of *Tidal* and in their publication *The Debt Resisters Operations Manual*, which is available at their website <http://strikedebt.org>.

The primary premise here is that "mafia capitalism," by which they mean the same thing as "capitalism" without the modifier, has forced just about everybody into debt as a way of exploiting and oppressing them.

Everyone seems to owe something, and most of us (including our cities) are in so deep it'll be years before we have any chance of getting out—if we have any chance at all. At least one in seven of us is already being pursued by debt collectors. We are told all of this is our own fault, that we got ourselves into this and that we should feel guilty or ashamed.

The whole system in which we live and in which we participate is part of this apparatus: [I]t's a shakedown system. The financial establishment colludes with the government to create rules designed to put everyone in debt; then the system extracts it from you.... it means endlessly making up new rules designed to put us all in debt, with the entire apparatus of government, police and prisons providing enforcement and surveillance.

This holds true as well for our individual behavior:

Debt is immoral. It is indentured servitude, a type of bondage... We have to sell our time, our souls, working jobs we don't care about simply so we can pay interest to the bank. Now that debt is so rampant, many of us are ashamed for putting others in debt. Our professions from teacher to lawyer and physician have become means to direct more victims to the loan sharks.

Society, they say, tells us we are obliged to pay back this debt, and should feel guilty and ashamed if we do not. But they refuse to feel that way:

We are under no moral obligation to keep our promises to liars and thieves. In fact, we are morally obligated to find a way to stop this system rather than continuing to perpetuate it.

The OWS modality for doing this is what they call a debt strike, which they see as part of a revolutionary movement to destroy the system and reclaim their lives.

When we strike debt, we live a life rather than repay a loan. We refuse to mortgage our lives. We reject the math that debt forces on us; math that says we cannot "afford" to care for our communities because we must "pay back" the banks forever, above and beyond what was borrowed. We question the dominance of the market in every aspect of social and cultural life.

And:

Strike Debt seeks to abolish debt as it currently exists and reconstruct a just society where our debts and bonds are to one another and not the 1%.

So the 99% are under no obligation to pay any of the debt. Refusing to do so is an act of righteousness, in which people chose freedom, living their lives, and giving to those who love them and whom they love instead of continuing to participate in the debt system.

From our point of view, it is clear enough what has happened here. The society's culture has been rejected; its meanings denied. What we do in balancing exchange relationships is a proxy for socialized activity as a whole, which is now looked at from the standpoint of alienation. The meanings that society has given to the constraints it imposes have been rejected and the imposition itself has become an act of paternal oppression.

Let us go back over their case:

Overall, their argumentative strategy relies on a failure to differentiate between negative possibilities and positive. The connection to the ego ideal having been removed, the whole realm of socialized activity is redefined within the context of hopelessness, and therefore as negative.

Specifically, exchange is defined as loss. There is no recognition that exchange works in both directions; that the person who borrows money actually gets something through the money that has been borrowed: a home has been bought and lived in, a person has gained a college education, and so on.

Similarly, observe that work has been redefined from activity in the pursuit of the ego ideal into a product of the father's malevolence and an instrumentality of his oppression. In this way, participation in the society is seen as "indentured servitude, a type of bondage." All work is work which they say "we don't care about" we only do it because we are forced to do so.

Again, no distinction is made between debt freely incurred as part of a fair system of exchange, and debt that has been forced upon the debtor. Rather, since there is no benefit gained from exchange, there cannot be any reason for incurring debt, and therefore no such thing as debt freely entered into. We are in debt because we have been caused by to be so by the system's malevolence. We have been deceived into believing we want or need things that the system has created for the purpose of entrapping us, and then we are kept in the system by force. All lending, that is to say, is predatory lending.

The failure to differentiate applies in the other direction as well. Everything we have that is good, they believe, was freely given to us by those who love us. This is the way it would be for everybody, if the world were in proper moral order. Through love, everything good would be freely given to everyone in our communities, all of whose members are connected by love. This would have obviated the need to enter into the debt system all together.

Every dollar we take from a fraudulent subprime mortgage speculator, every dollar we withhold from the collection agency is a tiny piece of our own lives and freedom that we can give back to our communities, to those we love and we respect.

On the whole, then, what is being denied is the father, the paternal function, and the complex patterns of interaction based on objective self-consciousness, through which everyone came to be able to see everyone in the same terms. That made it possible to plan and create stable social institutions such as the highly elaborated system of exchange we call the market, or capitalism, but at the cost of our sense of our own cosmic significance. Yet we "reject the math"; we reject the overarching view that makes it possible to equate the objective value of things through a common currency. Doing that, we do not need to submit to our diminution by entering into this system wherein we are just like everyone else, they say. On the contrary, our singular importance can be preserved, together with the possibility of relating only to others with whom we are emotionally connected; indeed, with whom we identify, and whose own grandeur is in that way assured. All we need to do is get rid of the father and his works. Maternal love will provide.

But, of course, it will not.

## **A Conclusion: A Question: A Choice: How Shall we See Culture?**

In concluding, it would be useful to take accounting of the two different views of the nature of socialization, remarkably similar but strikingly different, based on the orientation

taken toward the father, and whether or not he is experienced as evil.

Without the coloration of evil, culture is not only not the product of malignant forces, it is an actual beneficence. It is the framework that gives us a sense of direction in our lives, it gives us a setting in which our lives can make sense to us. Indeed, in a very literal way, it is the sense that our lives have when they make sense to us. In other words, it is sense itself. If our lives have meaning, this is the meaning they have. We may take this meaning passively, or through existential choice\*, but it is all that there is. Moreover, it gives us the only hope that humans can have. Hope is a belief that it is possible to attain the ego ideal. It is only within culture that the ego ideal can be specified and means of attainment can be conceived. And it is only as means of attainment of the ego ideal that anything we do can have sense.

But all of this is lost to the person who refuses culture. Its virtues are only seen from the standpoint of someone who sees it from within.

Refuse that position and culture is a system of falsehood which is being imposed on us by those who want to deprive us of the only thing that is really our own, which is ourselves. Thinking about our lives in this way, culture is seen, in its basic constitution, as a threat to our lives. It is not surprising that this would be seen as essentially evil; as the bad object.

The only sense our lives could have in such a circumstance would be by relating to culture as its negation. In the name of honesty, or authenticity, or truth, we could make sense of our lives by being against culture, seeing it as an alien imposition.

Seen in this way, resistance to it, and even the destruction of it, make perfectly good sense. That is the only framework of meaning that is available to us. But it preserves something, which is our own authentic self.

This is, of course the view from Zucotti Park.

But look how barren it is. Their idea of what they are doing authorizes and gives sense only to the destruction of the father and his works. The idea of the authentic self they celebrate is a minimal self; a self entirely without dimensions. It has no motivation to do anything constructive whatsoever, or for that matter, even anything enjoyable. They can associate with others, but such association offers nothing but association itself, and with other people as minimal as themselves, indeed identical in their minimality, and that is not very much. It is no wonder that they find themselves comfortable in, that they gravitate toward, a stretch of concrete.

Actually, it is even worse than that. Take away their common antagonism to the father and they have nothing that brings them together; no mutual frame of reference. The only way they can gain a sense of themselves is in competition with others. That is a situation made for rivalry, at best; war at worst. It is Hobbes' "state of nature." What is that exactly an improvement over?

In a sense, their problem goes right back to their origin, and it is that their whole purpose is to return to their origin. Goodness was in the past, they think, and therefore it makes no sense to connect themselves to anything in the future. The self that remains is a negative self that can aspire only as far as becoming zero. They have abolished the possibility of becoming.

Moreover, their opposition to culture is just as much a system of falsehood as the culture they oppose. The fantasy here is that if we kill father, we can marry mother. But, in reality, we will not marry mother whether we kill father or not. And even if we did, we would find that it isn't all we imagined it would be. Remember that the appeal of fusing again with mother, forming a boundariless connection, is based on the premise that we can return to that infantile condition, and any comprehension of reality will assure us that we cannot.

In truth, we will not kill father, either. Father is, after all, reality, and that will, in the end, survive.

In the interim, it serves us well to recognize that building a life around this fiction is itself a form of culture. It is culture that defines itself as being against culture, and in that way is absurd.

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\* What I mean by this is that someone consciously chooses one's identity, instead of living out the idea of oneself that one has internalized from others. Often, these are the same, though one's relationship to it is quite different. One chooses to be the self-one has become; takes responsibility for it.

Yet we can deconstruct the attack upon culture all we like and that helps us not one whit in making culture less vulnerable. The basic problem is that all culture rests on identification, and identification is, in Lacan's terms, a function of the imaginary. It never gets to the real, and can never get beyond fiction, beyond fantasy. Therefore, it makes sense only to those to whom it already makes sense. It cannot prove itself on terms that are outside itself.

Ernest Becker, who argued that the ultimate anxiety is anxiety over death, held that culture is the denial of death. It consists in the construction of projects through which we tell ourselves that we can attain immortality. But these are all fictions; we cannot make ourselves immortal, but can only repress our recognition of our mortality. Culture, therefore, is inevitably a lie.

Yet it is a lie that we need in order to live. It is a vital lie. Becker goes on to try to develop criteria that would enable us to evaluate these lies against each other, but of course this is a project that inevitably must fail. There are, as we know, no terms outside of culture through which cultures can be evaluated.

But in this sense is it not like life itself?

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### Brief Biography

Howard S. Schwartz is a professor of organizational behavior at Oakland University. His PhD is from Cornell University. His research addresses the psychodynamics of organizational self-destruction, most recently through the vehicle of political correctness. He was one of the founders of the International Society for the Psychoanalytic Study of Organizations.

He has published:

Narcissistic Process and Corporate Decay: The Theory of the Organization Ideal. New York University Press.

The Revolt of the Primitive: An Inquiry into the Roots of Political Correctness. Transaction Publishers.

Society Against Itself: Political Correctness and Organizational Self-Destruction. Karnac Publisher

## SPECIAL TALKS

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### CRISIS OF DEPENDENCE? A PSYCHO-ANALYTICAL PERSPECTIVE OF THE CRISIS IN SOUTHERN EUROPE (CASE IN POINT: PORTUGAL)

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#### Abstract

The economic and political crisis that has been affecting the so-called developed countries since 2007 struck with particular severity the ones in South Europe. Although quite different from one another, the countries who have been collectively designated under the acronym of PIGS share a great economic and financial dependence on the state. Drawing on the theories of S. Freud, W. Bion, E. Eriksson and D. Meltzer, I will analyse specifically the Portuguese case among those Southern European countries and propose a psycho-analytical interpretation of the situation based on the concept of dependency both on the individual level and the collective one. I shall argue that the dependence on the state mirrors a deeper psychological dependence on the maternal figure, typical of matriarchal societies, with: a) consequences on the autonomy of the individual; b) political consequences on the collective body level. As far as the individual level is concerned, I will argue that we psychotherapists should take into consideration the way dependence may hinder the therapeutic process and the stance we should take as professionals in order to foster more autonomy in our clients.

**Keywords:** *Crisis, Economy, Dependence, Autonomy, Matriarchal society, Family, State.*

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#### Introduction

My first studies were of Economics and Management. I became a psychoanalyst only much later, having had a keen interest in social psychology all my life. I am convinced that a crisis like the one we have been living through since 2008, has various human origins. Economics and psychology are more closely connected than most people believe.

I propose one could see the crisis in Southern Europe, namely in Portugal, working from a psychoanalytical perspective, using the concept of dependency. In particular, psychological dependency on mother/family/state.

I would also like to point out that the Portuguese crisis is structural and has roots different from those of the European crisis, with which it is convergent. Nevertheless, certain similarities in the collective behaviour in Southern countries (known under the acronym of PIGS) are worth reflecting upon, since they are also linked to dependency.

But first let me outline briefly how the global crisis developed from a subprime bubble in the USA to a global recession in Europe. In fact, the crisis is now financial, economic, social and political and is seriously affecting the minds and lives of people in many countries.

How has this terrible state of affairs come about?

#### The global crisis

Between 2004 and 2006 and after a period of particularly low interest rates, the Federal Reserve increased significantly the Fed fund's rate. As a consequence, the mortgage sector started giving clear signs that it was in trouble. It became obvious that much credit had been granted with an optimistic view in mind: that house prices would keep escalating. That,



however, did not happen. Being unable to pay their mortgages, families had to return the houses and apartments to the banks and real estate prices sank brutally. It may seem strange to some that the difficulties of American families could have such an impact on all the developed world but the fact is that we live in a globalised age and in times when the various players depend on each other strongly indeed.

Banking is perhaps the sector where this is most visible. Imparities in balance sheets started to make themselves obvious rather quickly. Lehman Brothers was liquidated. Other big financial institutions, such as Merrill Lynch, were sold at fire-sale prices. The banking crisis brought another crisis which has also to do with trust: That is, sovereign debts and country risk. Rating agencies started lowering their evaluation of the capability of countries to pay their debt: Ireland, Greece, Portugal, Spain, Italy and Cyprus are examples.

With distrust came fear. Global recession was on its way. Credit crunched, international trade decreased, investment sank, unemployment soared quickly. In Portugal, for instance, we went from a rate of unemployment which was 7.6% to 19% in 5 years (2008-2013). In Spain the problem is twice as big. Greece has been in a deep recession for 6 years, Portugal now for 3. Italy and Spain are struggling not to fall in the hands of creditors.

The crisis, like a plague, propagated very quickly in our globalised economy. Beginning as a financial crisis the situation has developed to become an economic, social and political one as well. And it is far from being over. The population of Europe has become old and devitalised. Factories have been shut. Trade among countries is falling. Germany has been called "the engine of Europe" but the anæmic growth of the German product in 2013 is not helping at all. As if all this were not enough the messy way the Cyprus banking crisis was dealt with by European officials was another nail in the coffin of the Eurozone - if not the European Union itself.

### **Case in point: Portugal**

Portugal, the country I am most familiar with, was doomed from the beginning. The external debt had been piling up for decades, especially for the last 15 years.

The revolution and the change of regime that took place in 1974, brought democracy and with it the hope for a better future for everybody. Barely acquainted with the democratic system, the Portuguese people fell into a dangerous illusion: Namely that all the benefits of a Welfare State would be available to all. Ignorant as we were of the rules of international economy, after 48 years of an over-protective dictatorship, we equated democracy with access to riches and well-being. Where would the money come from? Nobody worried about that. Our industrial sector was weak and based on traditional products: textile, shoes, canned food. We left hurriedly our previous colonies in Africa (both our source of raw materials and our main market), managed to integrate one million refugees quite peacefully and proceeded with our shared illusion of protection in disease and old age for everybody, including those who had never paid for any social security system (who were the majority).

With the blessing and even the stimulus of the European Community, which we joined in 1986 (or rather the EEC, as it was called in those days), we proceeded to destroy our traditional productive sectors: agriculture and fishing. People and firms, by means of European funds, started actually being paid not to work! I remember that quite well, because back in 1990 I was working in the industrial fishing sector back. As a matter of fact, most of our fishing fleet was dismantled.

As a country we had always depended strongly on imports. That tendency has been accentuated: More than half the food we eat now is imported or depend on imported goods.

After the revolution the public sector quickly became our main employer. Today, more than half the population depend on the state: teachers, doctors, nurses and other civil servants, pensioners and recipients of social subsidies as well as state suppliers. Truth is that the great majority of big business has the state as a client or as a partner.

As had happened before in the 19th century and at the beginning of the 20th century, political parties and their clienteles have taken over the state and whatever resources were available. Corruption, as in most southern countries, is endemic and there is no transparency at

all. Justice seems often to be blocked and many law suits, especially those about corruption, never come to an end.

The assault on the state was carried out with impunity, since the important thing was to make the promises the electors wanted to hear. The illusion and collusion were massive, except for a few isolated voices. What had seemed a legitimate dream - our country becoming modern - turned into a nightmare.

In 2011, on the verge of bankruptcy, the previous Government had to ask for help elsewhere, the crisis having brought a severe credit crunch. An agreement was then signed with the European Commission, the European Central Bank and the IMF. Not that we are not used to being in the grip of creditors. Bankruptcy has been part of our history. We always had this tendency to spend as if there was no tomorrow and politicians are quick to entice the people with ambitious building projects - and promises.

We are the oldest country in Europe, but we never managed, as a people, to deal with our own expenditures. Although we had particularly good periods before (just think about India and Brazil), we usually put consumption before saving. Short-sighted and lacking in well-prepared elites, the country rulers always preferred spending to investing.

Gold had come from Brazil since its discovery in 1500, but the profits it brought were rarely invested. They went straight away to manufacturing countries in Europe to pay for luxury goods.

I started wondering about the reasons for such an irresponsible behaviour and I want to propose the following hypothesis:

Portugal, as most Southern countries, is a matriarchal society. The relationship of the people with the state could be described as a childish and dependent one, like an infant's to its mother. We are, as a people, heavily dependent on the state: As I had said, more than a half the population depend on the state.

This Mother-State has been there for centuries. Like children, we complain about the state, but we depend on it. And now, that there is a general lack of resources, people have become aware that there is no money available for hospitals, schools and pensions. We have been left high and dry.

When, two years ago, we had to ask for money, the European Commission, the European Central Bank and the IMF came to our rescue, imposing no doubt very hard rules - which were necessary - but also interest rates which we won't be ever able to pay.

Like misbehaving children, we protest against the austerity measures. It seems that we had this childish illusion that our creditors would behave like a good mother, attentive and forthcoming towards our needs and demands. The Portuguese society, on the whole, is a disappointed and downbeat bunch. We cannot see any solution. We are in the grips of fear. We are starting to lose hope. Social cohesion is in danger.

### **A psycho-analytical perspective**

Now, the psycho-analytical question: what made us so dependent on Mother-State? Dependency, when excessive, is a psychological disorder, both on the individual and the collective level. A pathological dependency creates a type of object-relation structure that reinforces the dependence of the subject on the objects, in an endless feedback process. It can be a rather unhealthy pattern that keeps repeating itself.

This tendency to lean on Mother is quite old. In fact, there is in Southern Europe, especially in Spain, Portugal and some parts of Italy, archaeological evidence of religious rituals in honour of the Mother-Goddess. Whereas in some regions of the world God was male, here there has been for centuries the cult of a female divinity. The Virgin Mary cult, which is part of the Catholic Church and so strong in the South, is a remnant of that. Despite the quite widespread existence of misogyny and a macho attitude in Southern Europe, mothers are powerful in our societies. These two aspects seem paradoxical, but they can and do coexist.

What is dependency? Be it on drugs, gambling, alcohol or people, dependency is a way of being in which the ego feeds on the gratification that comes from the object. Like the baby who cannot stand the frustration of not having the mother's breast within its immediate reach,

the dependent personality cannot delay gratification and depends heavily on the object. This behaviour originates in childhood when the small baby is totally dependent on the maternal object. The way the baby and the mother live this dependency will structure object relations in the future. With the help of the mother, children can learn to tolerate frustration and delay gratification. As Wilfred Bion wrote, this is the way thinking develops, with the mother as what he called the "container" of anxiety and painful feelings.

It is not dependence per se that is pathological; being excessive and taking place beyond a certain age is. The baby, being immature, even premature, is naturally dependent on maternal care for some time. In human species this period is much longer: We pay for intelligence with dependency.

As the child grows he or she acquires more and more autonomy. This autonomy progresses as follows:

- Being able to move on his own
- Being able to talk and communicate
- Being able to fulfill his basic needs (food, hygiene and so on)
- Being able to think by and for himself and be accountable for his acts
- Being able to earn his living
- Being able to build a social network and his own family

Unfortunately, what we see around us is not always this kind of development. Society in general has been regressing to an infantile state. Grownups behave like adolescents and adolescents behave like children. The access to adult life takes place much later than before. It's not infrequent to know of thirty-something's, even forty-something's, who still live with their parents, some even after a divorce. Either because they cannot find a job or because they never really meant to cut off the links with childhood.

We listen to parents complaining about the immaturity of their children but digging deeper, we find that everybody colluded in the prolongation of dependence. We live in a society that encourages dependent behaviour and then we complain about the lack of initiative and self-motivation many people exhibit.

## **How did we come to this?**

### **The background**

Being a civil servant was until recently the most a Portuguese man or woman could wish for; it meant job safety and career progression by seniority.

If we look back at the two previous centuries we can see that this tendency to lean on the state is quite old. Governments always used jobs in the state sector as a way of feeding clienteles. Our dictator Salazar, who came to power in 1926, took advantage of the typical Portuguese aversion to risk and made sure civil servants would be on his side. He curtailed private initiative both in industry and commerce, so that very little could escape his control. As he used to say, the Portuguese should live semi-poor but honest lives.

In 1974 the revolution brought democracy but not independence from the control of the Mother-State, which grew obscenely. State and political parties became so interwoven that we cannot tell one from the other. The dependence of people on political parties turned into dependence on the state and vice-versa. Each new government brought a new influx of civil servants. In 2005 they accounted for 15% of all jobs.

The matriarchal family, still the nucleus of our society, does not facilitate autonomy or risk taking. The dyadic relationship between baby and mother allows for the illusion that everything is possible and can be taken for granted. Theoretically, the Oedipal phase paves the way for the child to acknowledge the existence of the father, his rule and the way he mediates between external reality and the dyadic mother/baby bubble. With the father come norm and socialisation. It may be that in Portugal this paternal function has also been lacking for centuries, as we have always been a country of emigrants and absentee fathers.

The harsh reality is that, dependent or autonomous, the world outside does not care about us. Facing this fact of life is so painful that some of us prefer to stay close to mother and her protection in an apparent but delusional safety.

A job in the civil service was for many a way of sustaining this illusion: That someone would take care of me for ever and ever. However, reality is more powerful. There is no safeguard from life. The Mother-State is disintegrating.

Paradoxically, in the face of this disintegration, the collective body - society - clings desperately to any promise of safety. The British psychoanalyst Wilfred Bion elaborated on this mental mechanism in groups. In the irrational basic assumption of dependence, the members of the group turn anxiously to anybody, an ideology or another group that they believe can save them from a terrible situation. This is fertile ground for a populist leader or parties.

### **The disorder of dependency**

Dependent personalities feed upon immediate gratification and when the object disappoints them they quickly attach themselves to another object (in psychoanalysis we call them "suppletive" objects). They cling to the object in a narcissistic way and when they are refused gratification, rage and hate can build up very quickly. With these personalities, another object will follow in the never ending search for the maternal object which had not been "containing" enough.

As far as groups are concerned, Bion also described a mode of group functioning in which the acritical belief in the object as the saviour, when disappointed, gives way to this anger and rage. Crowds may turn into mobs by the same process.

To contain, according to Bion, is to help the child to think the anxiety and mental pain he or she is feeling. It also means allowing for some risk and learning from experience. Over-protective parents do not allow for trial and error, for making mistakes and learning from them.

A maternalist government condemns the citizens to a state of pathological infantilisation. But where does the problem start? Who elects our governments? Who demands accountability? In Portugal nobody. Ex-governants who should be in prison parade on TV, teach at university and preside over companies that are also state suppliers. It is by means of this irresponsible collusion between rulers and the ruled, that mimics the fantasies of the baby, that our society strives to survive.

This terrible crisis is making us confront reality as a people and as individuals. Unemployment is rife, the elderly have their pensions reduced, young people cannot find jobs, cohabit and have children. Aggression and resentment build up. People get depressed. There is apparently no hope.

Not being able to hope is very bad for mental health. Without hope there are no projects for the future. It is like having no future at all. For it is part of human nature to envision the future as better than the present. Otherwise one cannot speak about a future but only of a continuation of the present.

### **The role of psychotherapists**

What shall we do then? I am sorry to say I do not have a solution. As a psychoanalyst and as a citizen, I believe it is urgent to invest more in ourselves and the way we relate to others and to our collective institutions.

What do I mean by this? We have to learn to tolerate frustration and to be stronger, more resilient, more capable, more accountable. More able to take initiative, even if it carries with it more responsibility. We have to demand more of the people whom we voted for and who represent us.

Donald Meltzer, another British psychoanalyst, wrote that the functions of the family were to create love, promote hope, contain depressive pain and allow for independent thinking. It is highly probable that many parents are unable to provide these functions. Nonetheless, they are the ones who should be doing that, not the schools.

Many of our patients do not seem to have built into themselves that basic trust Erik Eriksson referred to as part of our process of growing up. I believe that those of us who are psychotherapists have to help people to build a stronger self, so they can create better affective bonds and manage to self-motivate and work with more enthusiasm and initiative. It is easy to fall in the counter-transferential trap of dependence. It is for us to be aware of this trap and manage to foster autonomy in our clients.

I believe it is very important that we convey the message that psychotherapy is a powerful tool for self-knowledge and may bring more autonomy and an improved quality of life. For that purpose we have to be with our patients in a full therapeutic relationship, where doubt and questions are allowed to come to the surface. In short, a relationship of nurtured growth, not clinging dependency.

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### **Brief Biography**

Clara Pracana is a psychoanalyst, a psychotherapist, a coach and a lecturer. She was born in the Azores, Portugal.

She has a PhD in Applied Psychology (UNL, 2008), a Masters in Clinical Psychology and Psychopathology (ISPA, 2000), an MBA (UNL/Wharton School, 1982) and a honors in Economics (ISEG, 1976).

She teaches organizational behavior as an Invited Professor at ISMAT, Portugal, and is part of its scientific committee. She is a regular lecturer of psychoanalytical topics at APPPP, Portugal. She is also a tutor with the Lisbon MBA (UNL/UCL) and ISEG.

She is a founding member of the Portuguese Association of Psychoanalysis and Psychoanalytical Psychotherapy as well as a member of the Portuguese Psychoanalytical Society, of the International Coaching Community (ICC) and of the American Psychological Association (APA).

As a psychoanalyst, a counselor and an international certified coach, she has a private practice in Lisbon. Her research addresses guilt and shame, depression, emotional intelligence, leadership, change, motivation and group dynamics. She has published several papers and two books: "O Lider Sedutor" (2001) and "Felix Culpa" (2008).



# PSYCHOLOGISTS IN THE OPERATING THEATRE

**Prof. Michael Wang**

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## Abstract

### Introduction

Numerous experimental studies of consciousness and memory in the context of general anaesthesia have been conducted by psychologists, in collaboration with anaesthetists. These studies offer a scientific, empirical hypothesis-testing perspective on the nature of consciousness, unconscious (implicit) processes and, arguably, the foundation architecture of the mind. Key studies will be reviewed.

### Intra-operative consciousness and memory

Episodes of full awareness with explicit recall are more common than many anaesthetists realise (1 in 600 operations). Awareness with full recall is usually distressing and associated with acute PTSD reactions. The common reason for failure on the part of anaesthetists to identify intra-operative awareness is the paralyzing effect of muscle relaxants; contrary to traditional belief, autonomic and haemodynamic variables are unreliable indicators of wakefulness. Some studies have made use of the isolated forearm technique to determine levels of consciousness during GA, which allows communication despite the muscle paralysis. Often patients will demonstrate high levels of intra-operative consciousness but without post-operative explicit recall. This is because many anaesthetic drugs impair the encoding phase of memory. It is likely that previous studies demonstrating intra-operative implicit (unconscious) learning have involved learning episodes during such states. Implicit memory can be demonstrated in states of intra-operative wakefulness without explicit recall, including implicit emotional memory. We present a classification of intra-operative states of consciousness. We have also investigated benzodiazepine sedation as another clinical circumstance in which there may be dissociation between implicit and explicit recall.

### Implicit emotional memory

There is an intriguing literature in which patients have developed psychological disturbance following operations with GA in which the patient has no explicit recall, but the nature of the disturbance is indicative of inadequate anaesthesia. Experimental studies that attempt to investigate the mechanisms by which this may occur are reviewed. Finally I hope to show how these studies of implicit emotional memory provide an alternative (although not necessarily mutually exclusive) explanation of “psychogenic” amnesia and Freudian repression.

**Keywords:** *Consciousness, Implicit memory, General anaesthesia, Sedation, Anaesthetic awareness.*

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### Brief Biography

Michael Wang is Professor of Clinical Psychology in the School of Psychology, College of Medicine, Biological Science and Psychology, University of Leicester, and Honorary Consultant Clinical Psychologist in Anaesthesia, Critical Care and Pain Management at Leicester Royal Infirmary. He is also Director of the Doctoral Clinical Psychology Training Course at Leicester. Previously he was Professor of Clinical Psychology at the University of Hull and completed his training and qualifications in Manchester.

He is a former Chair of the Division of Clinical Psychology of the British Psychological Society. He has worked as a clinical psychologist for more than 30 years, treating patients with PTSD, anxiety disorders, depression, obsessional compulsive disorder, and in particular, psychological problems arising from unplanned anaesthetic and surgical incidents. He has worked closely with anaesthetists in both clinical and research contexts for more than 20 years. In 2004 he organized the 6th International Symposium on Memory and Awareness in Anaesthesia and Intensive Care, and has published numerous papers and book chapters on this topic. He was made a Fellow of the British Psychological Society in 1999 in recognition of this work. He is also a Fellow of the Royal Society of Medicine.

He has been invited to give numerous keynote lectures by the Association of Anaesthetists of Great Britain and Ireland (London 2004,2005,2006,2008, 2009), the Royal College of Anaesthetists (London 2008, 20010), the Yorkshire Association of Anaesthetists (Hull 2008, York 2010) , the Northern Ireland Association of Anaesthetists (Londonderry 2011), European Society of Anaesthesiology (Amsterdam 2011), Slovenian Society of Anaesthetists (Ljubljana 2012) World Congress of Anaesthesiology (Buenos Aires 2012) Japanese Society of Anaesthesia (Fukushima 2012) and at successive International Symposia on Memory and Awareness in Anaesthesia (New York 2001; Hull 2004; Munich 2008; Milwaukee 2011). He has written invited chapters in anaesthetic texts and is an invited co-author of a forthcoming Cochrane review on the prevention of anaesthetic awareness. He is a member of the joint RCoA/AAGBI working party on anaesthetic awareness (NAP5) which will report in 2014 and a member of the specialist Diagnostic Advisory Committee on Depth of Anaesthesia Monitoring of NICE (2011-2012).

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# ORAL PRESENTATIONS







## CHRONIC PAIN PATIENT'S QUALITY OF LIFE – A SYSTEMATIC REVIEW

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### Abstract

**Background:** A meta-analysis was performed to quantitatively estimate HRQoL in chronic pain patients. **Methods:** PubMed, PsycARTICLES, PsycINFO and EMBASE were searched. Query: “(chronic pain) (abstract) and (“quality of life” OR “HRQOL”) (abstract)”. Included studies should report HRQoL, using SF-36 questionnaire, in adults with non-cancer chronic pain followed in pain management units. Studies methodological quality was evaluated using the QATSDD scale. The inverse variance method was employed to calculate pooled means and 95% CI for each dimension and subgroup analysis was performed. **Findings:** 27 articles were selected. Pooled mean scores were low for every SF-36 dimension (ranging from 16 [10.06, 22.25], for Role Physical, to 52 [49.01, 54.63] for Mental Health, including summary scales: PCS 29.72 [28.12, 31.32] and MCS 42.89 [38.59, 47.19] (mean [95%CI]). **Discussion:** HRQoL of chronic pain patients is low in all dimensions. Psychological interventions have an important role to improve HRQoL in this population and should be promoted and encouraged.

**Keywords:** Chronic pain, Pain contexts, SF-36, Meta-analysis.

### 1. Introduction

Chronic pain is a major challenge for medical community (Becker, Sjøgren, Bech, Olsen, & Eriksen, 2000), since it is an overwhelming complex sensory and emotional experience (Mazzola et al., 2009).

Today it is recognized that chronic pain has a negative impact on quality of life (Borsbo, Peolsson, & Gerdle, 2009; Breivik et al., 2008; Lamé, Peters, Vlaeyen, Kleef, & Patijn, 2005; Tüzün, 2007). HRQoL physical, emotional and social dimensions have impact on chronic pain patient's pain exacerbation or relief (Ferrer, 2002). Even treatment outcomes are affected by cognitive, motivational and emotional factors (Mazzola et al., 2009).

Multidisciplinary pain treatment probably is the most effective for chronic pain patients (Becker et al., 2000), but, for several motives, not all chronic pain patients are treated in specialized pain centres. Valid HRQoL measures in pain units used systematically allow the identification of pain impact in patient's lives, selection of best treatment options, and outcome treatment evaluation (Ferrer, 2002). There is some consensus that individuals with chronic pain and longer pain duration have lower HRQoL (Jamison, Fanciullo, McHugo, & Baird, 2007). Some studies about pain unit's patients indicate lower levels of HRQoL when compared with other chronic populations (Fredheim et al., 2008). However many of these studies use disease specific HROQoL questionnaires (e.g., Fibromyalgia Impact Questionnaire), or participants have very specific diagnoses (as cancer pain, fibromyalgia, neck pain, lumbar pain, pelvic pain or osteoarthritis) (Ferrer, 2002). SF-36 is the HRQoL questionnaire employed the longest (Elliott, Renier, & Palcher, 2003) and over the years it has been refined and culturally adapted in several countries (Alonso et al., 2004; McDowell, 2006).

The SF-36 is a 36-item questionnaire, self-administered, applied in paper pencil or computer versions that measures eight domains: physical functioning, role limitations due to physical problems, bodily pain, vitality, general health perceptions, social functioning, role limitations due to emotional problems, and mental health. These eight dimension scales are

grouped into two health dimensions, the summary scales: physical composite scale and mental composite scale (Jamison et al., 2007).

A systematic review was conducted to quantitatively estimate HRQoL in non-cancer chronic pain patients followed in pain management units, by performing a meta-analysis of studies estimating SF-36 outcomes in this population.

## **2. Methods**

### **2.1. Search strategy and inclusion criteria**

Research was performed in several electronic databases: PubMed, EMBASE, SocINDEX, CINAHL, PsycARTICLES, PsycINFO and Cochrane Central Register of Controlled Trial and restricted to articles published until April 2011. To conduct a sensitive search, query search was “(chronic pain) (title/abstract) and (“quality of life” OR “HRQOL”) (title/abstract)” in PubMed. For all the others electronic databases query was “(chronic pain) (abstract) and (“quality of life” OR “HRQOL”) (abstract)”.

Inclusion criteria: a) all studies assessing HRQoL in adults (above 18 years) with chronic non cancer pain in pain contexts (pain clinics, pain management units or hospital pain specialized units) and with pain duration longer than 3 months; and b) studies describing HRQoL questionnaires application in chronic pain patients. Exclusion criteria: a) articles assessing HRQoL in populations with specific pain diagnoses (e.g. cancer, fibromyalgia or osteoarthritis); b) studies focusing specific conditions in general diagnosis, as moderate to severe pain, intractable pain, or disabled patients by chronic pain; c) interventions that usually aren’t first treatment choice, like ablative techniques; d) and, methodological studies as systematic reviews or case studies. Inclusion process was carried out by one researcher on two occasions: first after reading title and abstract and then after reading full articles. All reasons of article’s inclusion or exclusion were recorded and analysed.

### **2.2 Statistical analysis**

The inverse variance method was employed to calculate pooled means and confidence intervals (95%) for all SF-36 scales at baseline, since they are continuous variables, ranging from 0 to 100. The inverse variance method was also applied to aggregate information of several groups in the same study, which estimated pooled measures (mean, standard deviations and standard error) per study.

Random-effects model was used based on the assumption that estimated effects differ across studies, but follow the same distribution. Software used to aggregate data was Review Manager 5<sup>®</sup>, which implements random-effects meta-analysis version described by DerSimonian and Laird (Deeks, Higgins, & Altman, 2011). Heterogeneity was explored through subgroup analyses considering study methodology, type of pain management unit, geographical region, participants mean age, and percentage of patients with low back pain.

Sensibility analysis for each SF-36 scale was performed removing one study at a time and then analysing different pooled means. Publication bias was assessed by funnel plots for all SF-36 scales.

## **3. Findings**

From the 4608 articles retrieved, after articles selection process 27 studies were included. In 16 (59%) studies information about SF-36 scales was available, 12 reporting 8 dimension scale’s mean and standard deviation (or other measures enabling standard error calculation) and 6 with summary scales data (2 studies reported profile scales as well as summary scales). About the other 11 studies, 4 were abstracts and 7 described values like correlations or had graphic information.

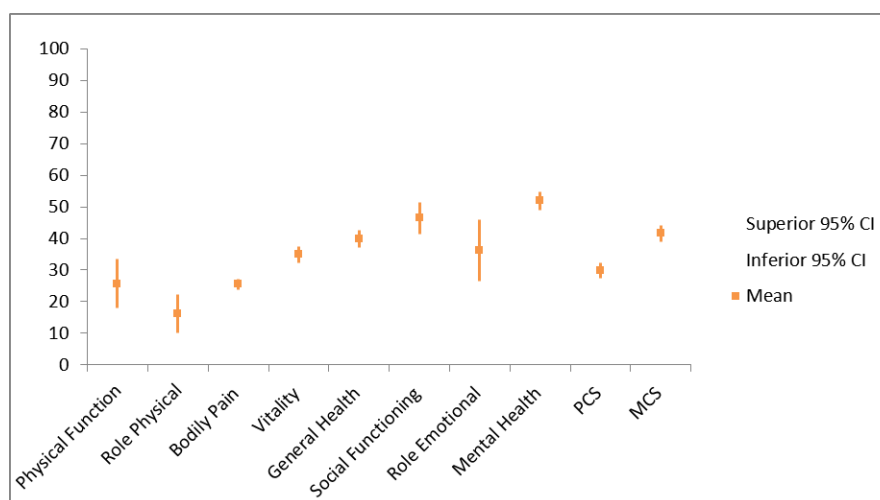
### **3.1 Global quantitative results**

Pooled estimates are low for every SF-36 dimension (ranging from 16 [10.06, 22.25], for the dimension Role Physical, to 52 [49.01, 54.63] for the dimension Mental Health (mean

[95%CI])). Scales associated with physical health tended to have lower values than those associated with mental health: Physical Function 25.72 [18.02, 33.42], Role Physical 16.29 [10.06, 22.25], Bodily Pain 25.56 [23.89, 27.23], Vitality 35.01 [32.72, 37.29], General Health 39.91 [37.13, 42.69], Social Functioning 46.43 [41.49, 51.37], Role Emotional 36.33 [26.61, 46.04] and Mental Health 52 [49.01, 54.63] (mean [95%CI]). This pattern was equally observed when pooling mean estimates of SF-36 summary scales: PCS 29.81 [27.32, 32.23] and MCS 41.58 [38.91, 44.25] (mean [95%CI]).

Figure 1 is a graphic presentation of SF-36 dimensions estimates. Only Mental Health dimension has a mean estimate above 50, again SF-36 scales range between 0 and 100, where 100 represents the best HRQoL. And the dimension with lowest values is Role Physical 16.29 [10.06, 22.25] (mean [95%CI]).

**Figure 1:** *SF-36 Meta-analysis results*



### 3.2 Subgroup analysis

All scales had high and significant heterogeneity. Dividing studies according to geographical region, only 3 continents are represented (America, Europe and Asia). Asian chronic pain patients had systematically lower HRQoL scores and differences were meaningful in Physical Functioning, Role Physical, Vitality, Role Emotional and Mental Health dimensions. Again, mean scores of Bodily Pain dimension of the 3 continents were very similar. Comparing Americans (North and South Americans) with Europeans, Americans tended to have significantly higher scores in Role Physical dimension, while Europeans tended to have significant higher values in Vitality and MCS dimensions. SF-36 outcome comparison according to participant's mean age was also executed, when that information was available. In studies where participant's mean age was lower than 50 years SF-36 scores tended to be lower than in studies with participants mean age above 50 years. These differences are statistically meaningful in Physical Functioning and Vitality dimensions. Another comparison performed between studies was based on percentage of low back pain patients in the sample. Considering studies where this information was available, studies with more low back pain patients (above 50% of the patients) had systematically lower HRQoL scores for all SF-36 dimensions. In General Health and MCS scores this difference was statistically significant.

Sensitivity analysis indicated that removing each study, SF-36 pooled scores remain very similar to the original pooling estimates. In order to evaluate the risk of publication bias, a funnel plot was created for the pooled analysis of all SF-36 eight dimensions and for the two summary scales. Visual analysis of funnel plots did not detect major asymmetries. We concluded that in this case there was limited evidence of publication bias.

#### 4. Discussion

Studies included in this meta-analysis were based on articles that used SF-36 as a HRQoL questionnaire selected on a systematic review performed to identify, characterize, assess and summarize existing literature on HRQoL questionnaires used to assess non cancer chronic pain patients followed in pain management units.

It is possible to conclude based on the available evidence that the HRQoL levels of chronic pain patients are in general very low, lower than other chronic conditions and this is particularly true for physical health components of HRQoL.

Comparing our meta-analysis pooled estimates with IQOLA Project (Alonso, et al., 2004), it is evident to conclude that chronic pain patients followed in pain management units have much lower HRQoL scores than general population and individuals with other chronic conditions (allergies, arthritis, chronic lung disease, congestive heart failure, diabetes, hypertension and ischemic heart disease). The IQOLA Project aggregates SF-36 results based in general population, which included subjects with chronic conditions, in 8 countries.

In subgroup analysis geographical region, age and low back pain are the best moderators of study heterogeneity. Among patients with chronic pain, Asians tend to have lower HRQoL values. We could think cultural conceptions would play a role in answers, but discrepancy with population norms is enormous (Lee et al., 2005), and SF-36 translations have cultural factors in consideration and good psychometric results in different countries. Regarding age, individuals below 50 years with chronic pain tend to perceive low HRQoL, and in this study, significant differences are mostly in physical dimensions (Physical Functioning and Vitality). This is consistent with literature probably because older people have pain for a longer time and developed better strategies to cope with pain and limitations in daily life are not seen as so problematic (Rustoen et al., 2005). Literature also supports the diminished HRQoL of low back pain patients (Lamé, et al., 2005), usually associated with more functional limitations and catastrophising thoughts about pain.

Sensitivity analysis conducted allowed to corroborate pooled estimates presented, since studies removal (one at the time) did not affect substantially the pooled estimates. Although we have not found clear evidence of publication bias, it is always possible that this is a problem in the present study. There was an effort to include all articles regardless publication language (English, German, French, Spanish and Portuguese).

This study had some limitations that deserve further consideration. There are some limitations related to the systematic review process like the difficulty in specifying search terms or queries broad in scope. Thus the initial results of the literature search were quite extensive and it took an important amount of work and time to perform the studies selection phase. After including only quantitative data from SF-36 applications, we found that an important part of the studies did not presented the adequate quantitative data needed to perform meta-analysis. We have contacted authors and made all efforts available in order to obtain these data. The studies included in the meta-analysis presented high heterogeneity, associated with a high methodological variability and the existence of very different settings. Thus, we tried to assess the magnitude of the heterogeneity in every analysis performed and explored the sources of heterogeneity using sub-group analysis. However, because in most cases the heterogeneity was significant, pooled estimates presented should be analysed with caution.

The relevance, a major strength, of the present study is mainly associated with the presentation of meta-analytic estimates of HRQoL in non-cancer chronic pain patients followed in pain management units. To our knowledge, this is the first work presenting this kind of evidence in for this particular population.

This work is an initial attempt to determine HRQoL of chronic pain patients in pain contexts. It would be interesting to evaluate changes in HRQoL during and after specialized pain treatment, enabling HRQoL changes monitorization and evaluate treatment impact of usual or specific treatments, like opioid treatment.

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## PROBLEMS WITH GENOMIC INSTABILITY IN CELLS OF YOUNG CHILDREN ASSOCIATE WITH PROBLEMS OF THEIR FAMILY AND TEACHER

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### Abstract

Healthy children of 5-9 years from complete and incomplete families, living in two Russian industrial towns Magnitogorsk (440 000 citizens, one of the biggest Russian steel combine) and Korjashma (42 000 citizens, one of the Russian biggest Pulp and Paper Mill) were examined both for genomic instability (genetical damage and complex of other alterations leading stable genome of normal cell into unstable, characteristic for cancer) in blood lymphocytes, some biochemical reactions and for psychosomatic status by M. Luscher's test. Their parents were tested for expression of emotional stress, detection of quality of life, and questioned about social status, education, income, living conditions, smoking, drinking of alcohol, etc. The study was carried out with the permission of Committees on Ethics of the towns and parents of children. Results demonstrated that genetical damage in children's blood cells were high in both towns (but in Korjashma higher than in Magnitogorsk) and correlated with level of parents' emotional stress expression, their perception of own and family's quality of life, parent's education, house condition as well as parents' smoking and drinking alcohol. Those last – too – correlated with decreased apoptosis in children's blood cells, what proves fastening of damages into generations of dividing cells. It is important that only those social indices, which create problems for parents, did increase genomic instability of their children. For the end, children's autonomic tone and some biochemical indices were connected with family's style of life. So, our data testify that quality of life, lifestyle and emotional climate of family are potential source of children's genomic instability (which may in adulthood realize into big spectrum of diseases, including immune deficiency and cancer). This conclusion shows the necessity to create special approach for education children as future parents as well as to think about change preschool and school educational system in direction of more psychological comfort and spirituality for preservation of health of our children and health of future generations.

**Keywords:** *Children's genomic instability, Autonomic tone, Family quality and style of life.*

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### 1. Introduction

"Genomic instability" is complex of various molecular mechanisms and effects leading stable genome of normal cell to unstable, characteristic for cancer [1]. During last decade genomic instability is taking into consideration as the main reason of large spectrum of diseases, including different mental diseases, immune deficiencies and cancer.

### 2. Methods and Design

Healthy children from complete and incomplete families with children, living in Russian industrial towns Magnitogorsk (Ural Region, 440 000 citizens, one of the biggest

Russian steel combine is located) and Korjashma (Archangelsk region, 42 000 citizens, one of the biggest European Pulp and Paper Mill is located) were examined for:

- genomic instability in blood cells, cultivated with Cytochalasin B for detection genetical damage, symmetry of cellular division, mitotic activity, speed of cellular proliferation, apoptosis etc. [2,3];
- activity of catalase in blood and N-acetyl-b-D-glucosaminidase both in blood and urine using standard biochemical reactions;
- psychosomatic status with 8-colour M. Luscher's test.

In Magnitogorsk for the study were formed 2 cohorts of families with children of 5-7 years old with normal mental development, living in different areas of the city - 85 children from 83 families lived around steel combine and 81 children from 80 families - in the other district, but not far from the steel combine, too. Children were selected for the study using the next criteria: families lived at selected areas not less than 3 years before study, parents before birth of child didn't work on coke plant of the steel combine; children visited municipal kindergartens (common meal and day regimen, groups of 20-34 persons in each kindergarten) located near their homes; children within 2 months before blood sampling were not ill, didn't receive any kinds of therapy, X-ray, surgical interventions, etc; children had normal alarm expression (8-coloured M. Luscher's test), detected 10-14 days before blood sampling. To select these children we analyzed medical documentation of all of children, visiting selected kindergartens – in total 1364 persons, who presents about 15% of all children of this age living in the city.

In Korjashma 105 children of 8-9 years old from 104 complete and incomplete families, learning in 2-nd classes of municipal primary schools (common meal and day regimen) were examined. These children had normal mental development, were not ill and didn't receive any kinds of therapy, X-ray or surgical interventions within 1 month before blood sampling. Practically, in this study we examined all healthy children of this age living in Korjashma.

All parents of chosen children in Magnitogorsk and Korjashma as their teachers – only in Korjashma - were tested by Cholms-Ray's scale for detection level of social adaptation (psychological depression), Taylor's scale for analysis of alarm expression and Akkles' scale for evaluation of over fatigue and by Subjective Well-being Scale [4] for detection quality of life. In addition all adults were questionnairing about their social and matrimonial statuses, education, income, housing conditions, smoking, drinking of alcohol, etc.

The studies were carried out with the permission of the Main Pediatrists of the cities, Committees on Ethics of the towns and parents of children.

Social conditions of life in Magnitogorsk and Korjashma were very close.

### 3. Results

1. In Magnitogorsk levels of genomic instability in children's blood were higher than Europe in about 1,5 times and didn't differ between areas.

Parent's and children's emotional stress expression, income for 1 person, matrimonial status, number of family members, conditions of residing, parent's smoking and alcohol drinking did not statistically differed between the cohorts of families from 2 areas of Magnitogorsk. But parent's education and social status were slightly lower among families living around steel plant than among living in the other area of the city. Additionally, these families were stressed by income and conditions of residing. And most of important that only for children, living around steel plant, we detected statistically significant correlation between income per 1 person and genomic instability.

For families from the other area of the city were important quality of intrafamily relations and level of education, but not money. And children's genomic instability in that case positively correlated with quality of intrafamily relations and quantity of people, living in their flat.

2. In Koryazhma levels of genomic instability in children's blood were higher than in Magnitogorsk and didn't differed between schools. Average level of speed of cellular division was higher in blood of children from Koryazhma, too, what demonstrates tendency to early

ageing. Relatively lower level of programmed cellular death (apoptosis), detected in Koryazhma, in complex with high level of genetical damage, allow supposing fastening of these damages into generations of sharing cells.

No significant correlations between income and children's genomic instability were detected, although level father's education correlated with children's genomic instability positively.

Analysis of intrafamily correlation, detected using Subjective Well-being Scale shown that father's subjective evaluation of his quality of life was negatively associated with level of rapidly dividing cells (negative prognosis to early ageing) and with level of rapidly dividing cells having genetical damage. With apoptosis in children's blood lymphocyte negatively correlated father's satisfaction by his quality of life and quantity of members of family, but not with income.

3. In all cities children's level of alarm expression correlated with degree of father' over fatigue, mother's emotional stress expression, her dependence on social environment and with other indicators of emotional climate of family as well as parent's smoking and drinking of alcohol with high coefficients and levels of significance. Additionally, parent's smoking and drinking of alcohol positively correlated with decreased level of apoptosis in children's lymphocytes, what proves fastening of DNA damage into generations of dividing cells and – negatively with children's autonomic tone.

4. Children's autonomic tone and activity of some enzymes correlated with family' style of life.

It is important, that: a) only those social indices, which created problems for parents, did increase genomic instability in blood lymphocytes of their children; b) the same regularities we found out between teacher's emotional stress expression, some of their social indices and genomic instability in children's blood cells; c) incomplete family is the most of important factor, negatively influencing to children's genomic instability and their autonomous tone.

#### 4. Conclusion

Our data testify that quality of life, lifestyle and emotional climate of family (and school) are potential source of children's genomic instability, which may in adulthood develops into large spectrum of deceases, including different mental diseases (which mutagenic nature was proof), immune deficiency and cancer. This conclusion shows the necessity to create special approach for education children as future parents as well as to think about change preschool and school educational system in direction of more psychological comfort and spirituality for preservation of health (mainly, mental diseases) of our children and health of future generations. The same problems are connected with education of teachers. For the end it would note that quality of life, lifestyle and emotional climate of family are common reasons of children's genomic instability, but each country and each city has their own concrete particularities of these reasons, which is necessary to take into consideration in preschool and school education.

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## SOCIAL ANXIETY AND QUALITY OF LIFE IN ADOLESCENTS

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### Abstract

The objective of this research is to examine how social anxiety and maintenance of quality of life are associated in adolescents in one 'Eastern' and one 'Western' country, namely the United Kingdom and Saudi Arabia. We first examined validity and reliability of Arabic versions of the scales used in this research. It was hypothesized that social anxiety and QOL are moderated by other factors such as social interaction, cognition, culture, gender and educational level. *Method:* Study method conducted 'translation and back-translation' methodology to provide Arabic versions of six scales, variously on social anxiety (including different aspects), QOL, and individualism-collectivism, from English into Arabic. Moreover, a pilot study was carried out to examine applicability of the scales in target population. A sample of adolescent students completed the questionnaires. *Results:* The Arabic versions of instruments proved to have good reliabilities, convergent validity, and indicate high values of internal consistency. Besides, results exhibited that the relationship between social anxiety and QOL was partially moderated by other variables such as cognitive, social interaction and cultural correlates. *Conclusion:* Psychometric properties of the instruments provide support for the application of all instruments among the Arabic-speaking adolescent population. To our knowledge, this study is the first account to report acceptable psychometric properties these measures in target population.

**Keywords:** *Social anxiety, Social Phobia, Quality of life, Collectivism and individualism.*

### 1. Introduction

Social anxiety disorder ranks as the third most common psychiatric disorder, after depression and alcohol abuse (Furmark, 2002), with a lifetime prevalence rate of up to 16% in the general population (Hidalgo et al., 2001). Social anxiety often arises during public speaking or when performing in front of others (Kessler, Stein & Berglund, 1998). For the purposes of this study, social anxiety and social phobia will be used interchangeably.

#### 1.1. Social anxiety related to Quality of Life

An aim of this study is to investigate how social anxiety affects the maintenance of quality of life in adolescents. The construct Quality of Life (QOL) incorporates an individual's subjective attitudes towards their health, social participation, routine, living and economic conditions, as well as any functional impairments or handicaps (Koot & Wallander, 2001).

#### 1.2. Cross-cultural variations

While social anxiety is a common phenomenon in most countries, its symptoms may manifest differently across different cultures (Zender, 2001). The objective of this research is to examine how social anxiety and maintenance of QOL are associated in adolescents in two countries whose social and cultural realities diverge in many respects, such as in terms of individualism and collectivism: the United Kingdom and Saudi Arabia.

Mahfouz (2009) found that overall prevalence of mental disorders among school-age adolescents of both sexes in Saudi Arabia was 15.5%, while the most frequent symptom was phobic anxiety (17.3%). Ragheb et al. (2007) claim that only two published studies report social phobia prevalence in an Arab country: Al Gelban (2009) and Mahfouz (2009). They highlight the need for psychometric measures to screen or diagnose social anxiety in Arabic countries.

This study seeks to understand the debilitating effect of social phobia on the quality of adolescent life in an under-studied cultural setting: Saudi Arabia. A large proportion of the Saudi Arabian population is young, with 69% under 30 years old, and 47% under 15 years old (Khoja & Farid, 2000). Another aim of this research is to develop appropriate, valid and reliable

measures of social anxiety and QOL in adolescents in Saudi Arabia. Detecting cultural differences has the potential to make the findings more meaningful.

The norms for which the tests have been designed have to be considered carefully, in terms of age, gender, occupation, economic status (Samuda, 1998). Tests which are not culture-fair may incorrectly reflect the prevalence of mental health difficulties, needs and interventions (Abdel-Khalec & Soliman, 1999; Draguns, 1990; Okasaki, 1995). There is a lack of information on the validity and reliability of relevant research instruments in Saudi Arabia. Adequate levels of instrument reliability might not be achieved when the instrument is translated; predictive relationships among the variables in one language may not be replicated during the translation process (Berkanovic, 1980). We should not assume that a given metric has the same meaning in a different culture (Okasaki, 1995).

## 2. Aims and objectives of the research

The main aim of this research is to determine how social anxiety affects quality of life in adolescents. Social, cognitive and cultural correlates of social anxiety will be taken into consideration when analysing the data. This aim will be approached through three objectives: **1)** To explore the reliability and validity of a new, multi-dimensional scale for measuring social anxiety in Arabic cultures, which might have value in both diagnosis and research in Arab countries. At the same time, it will be designed to develop mechanisms for measuring QOL in a Saudi population. **2)** To determine the prevalence of social anxiety among adolescents and its relation to QOL. **3)** To evaluate possible links (causal or correlational) between social anxiety, its cognitive and social correlates, QOL, and cultural indices (such as individualism vs. collectivism). *Hypotheses:*

1. The Arabic versions of the scales used in this research are reliable.
2. Social interaction will moderate the relationship between social anxiety and QOL.
3. Cognitive factors will moderate the relationship between social anxiety and QOL.
4. Cultural factors will moderate the relationship between social anxiety and quality of life.

## 3. Methodology

Firstly, psychometric evaluation will be conducted to ensure that the six psychological scales selected for this study can be administered to Saudi adolescents who do not necessarily speak English. Secondly, a pilot study will be conducted with Saudi adolescents in Saudi schools located in the UK.

*Procedure:* This study comprises two stages. STAGE 1 - To provide Arabic versions of six English-language scales, variously on social anxiety (including different aspects), QOL, and individualism-collectivism, 'translation and back-translation methodology' was used. The rigorous guidelines for instrument translation offered by Bristlin (1970) were followed. STAGE 2 - Arabic versions were administered to Saudi adolescents in Saudi schools located in the UK. The purpose was to examine the applicability of the scales in the target population.

*Participants:* The subjects were 48 males and 55 females in four Saudi secondary and high schools in the UK, selected using a clustered random sampling method from a list of Saudi schools located in the UK. 103 students (aged 14-19 years) were recruited by advertisement, 23

**Table 1: Demographic Characteristics of participants**

Demographics	Frequency	Percentage	Mean	Std. Deviation
<b>Gender</b>			1.53	.50
Male	48	46.6 %		
Female	55	53.4 %		
<b>Age</b>			17.07	1.59
14	4	3.9 %		
15	18	17.5 %		
16	19	18.4 %		
17	16	15.5 %		
18	17	16.5 %		
19	29	28.2 %		
<b>Education Level</b>			1.78	1.40
Secondary School	23	22.3 %		
High School	80	77.7 %		

Note: N=103

from secondary school and 80 from high school. They completed the questionnaires manually (22%) or online (78%) with a 100% response rate.

**Measures:** The six scales used in this study were chosen because they are the best-known and mostly used in social anxiety and QOL studies: Social Anxiety Scale for Adolescents (SAS-A); Social Phobia Inventory (SPIN); Social Interaction Anxiety Scale (SIAS); Brief version of the Fear of Negative Evaluation Scale (BFNE); The World Health Organization's Quality of Life Questionnaire (WHOQOL-BREF); Individualism-Relatedness (Collectivism) Scale (Kirsh & Kuiper, 2002).

**Data analysis:** Data were analyzed using SPSS version 19.0. To rule out any potential selection bias between the two samples, manual and online (Kraut et al., 2004), a series of independent t-tests were conducted. A series of Cronbach's Alphas was used to measure internal consistencies for each scale. To examine test retest reliability 25 participants were re-tested two weeks, after first administration of the Arabic version of all scales, using intraclass correlations. A series of Pearson correlations were performed to explore inter-correlations between scores of various measures.

#### 4. Results

Because there is currently no data to support the psychometric properties and factor structure of most of instruments for measuring social anxiety in an adolescent Arabic population, all psychometric properties and factor structures of those instruments were compared with the studies discussed in the literature review. **Statistical analysis:** T-tests parameters between online and manual groups revealed no significant difference between the means in two groups, except for BFNE in which the 'online group' mean was slightly higher than the 'manual group' Mean. **Reliability:** **1)** SAS-A test-retest reliability was analyzed using Pearson's correlation coefficients for SAS-A total scores and was found to be significant ( $r=.83$ ,  $p<.01$ ). Cronbach's alpha shows that internal consistency of SAS-A was 0.86 (all  $p<0.01$ ). This suggests that the SAS-A is useful in the assessment of social anxiety among adolescents in the target population. **2)** SPIN reliability was found to be non-significant ( $r=.87$ ). Cronbach's alpha shows that internal consistency of SPIN was 0.89 (all  $p < 0.01$ ). **3)** SIAS reliability coefficient was 0.75, with a Cronbach's alpha of 0.81 (all  $p<0.01$ ). **4)** BFNE reliability coefficient was 0.72, with a high internal consistency (0.72). **5)** WHOQOL-BREF reliability coefficient was 0.76, with a high internal consistency (0.87). **6)** SRAQ reliability coefficient was 0.72, with a very high internal consistency (0.94). **Intercorrelations: Divergent validities.** Pearson correlations between the dependent variables are reported in a table (not shown). Previously validated in Arab countries, WHOQOL was deemed to be an external criterion for examining validity. The significant inverse correlation between the external criterion and total scores on the remaining measures can be regarded as divergent validities.

**Table 2: Intercorrelations between study variables**

		SASA	SPINT	BFNE	SIAS	WHOQOL	SRAQ
<b>SASA</b>	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	103					
<b>SPIN</b>	Pearson Correlation	.740**	1				
	Sig. (2-tailed)	.000					
	N	103	103				
<b>BFNE</b>	Pearson Correlation	.635**	.721**	1			
	Sig. (2-tailed)	.000	.000				
	N	103	103	103			
<b>SIAS</b>	Pearson Correlation	.730**	.771**	.611**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	103	103	103	103		
<b>WHOQOL</b>	Pearson Correlation	-.305**	-.351**	-.272**	-.353**	1	
	Sig. (2-tailed)	.002	.000	.006	.000		
	N	103	103	103	103	103	
<b>SRAQ</b>	Pearson Correlation	-.178-	-.222-	-.144-	-.170-	.384**	1
	Sig. (2-tailed)	.073	.024	.147	.086	.000	
	N	103	103	103	103	103	103

*Note:* SASA = Social Anxiety Scale- Adolescents; SPIN = Social phobia Inventory, BFNE = Brief version of the Fear of Negative Evaluation Scale; SIAS = Social Interaction Anxiety Scale; WHOQOL = World Health Organization's Quality of Life Questionnaire; SRAQ = Self-Referent Adjective Questionnaire.

\* =  $p < 0.01$ , \*\* =  $p < 0.001$

*Moderation analysis:* Numerous variables were tested as potential moderators. Social interaction was found to have a significant moderation effect regarding the relationship between social anxiety (SAS-A) and quality of life. This indicates that the relationship is likely to have direct effect. Social interaction may play a significant role in maintaining social anxiety in that if a person receives positive social feedback, they may perceive themselves as socially competent and therefore not feel anxiety, whereas if they receive negative feedback, they may perceive themselves as incompetent and therefore feel social anxiety (Huppert et al., 2007).

Similarly, cognitive factors were significantly correlated with SAS-A and QOL, suggesting that the cognitive aspect moderates the relationship between social anxiety and quality of life. A potential interpretation is that social anxiety might be distinguished by general evaluation more than by negative evaluation (e.g., Clark & Wells, 1995). This is consistent with previous reports (e.g., Rapee & Heimberg, 1997) that show that people who suffer from social anxiety may lack social skills which in turn, may have a serious, negative impact on their confidence.

Finally, cultural factors were found to have a significant moderating effect on the relationship between social anxiety and quality of life. Based on Markus and Kitayama (1991), a possible interpretation of identifying culture-related factors in social anxiety disorder is that more collectivistic people might place a higher value on social harmony than more individualistic people, and be less likely to pay attention to the self and more likely to pay attention to the perceptions of others. A fear of others' social perceptions may cause one to feel social anxiety. No significant moderation effect was found for gender and education level. This may indicate that the relationship is likely to have been a main effect rather than an indirect effect.

## 5. Discussion

The pilot study showed that the Arabic version of instruments have good reliabilities and other psychometric properties for the screening of social phobia among Saudi adolescents in the UK. The test-retest reliabilities (.75-.83) and the internal consistency coefficients (.72-.94) for the six instruments used in this study were similar to those of previous reports (e.g., Albano, 1995; La Greca & Lopez, 1998; Mattick & Clarke, 1998; Safren et al., 1997). Results also showed that the relationship between social anxiety and quality of life was partially moderated by other variables such as social interaction, cognitive, and cultural correlates.

## 6. Conclusion

The results of this pilot study support the factor structure of the six instruments used, and indicate high values of internal consistency for most of the instruments' total scores, providing support for the use of all six instruments among the Arabic-speaking adolescent population. This is the first study to examine the psychometric properties of the Arabic version of a set of instruments in an adolescent community sample, namely, Saudi Arabia. A limitation of this study is that it did not investigate the relationship between the Arabic version and other related measures. Moreover, because some 78% of the participants were high school students (80 of 103), caution should be exercised when generalizing these findings to other populations, such as secondary school students.

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## **PATIENTS' EXPERIENCE OF BEING TRIAGED DIRECTLY TO A PSYCHOLOGIST WHEN THE REASON FOR CONTACT IS MENTAL HEALTH ISSUES: A QUALITATIVE STUDY**

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### **Abstract**

In a primary health-care centre (PHCC) situated in a segregated area with low socioeconomic status a nurse-led patient sorting system “primary care triage” has increased efficiency and accessibility. This study focused on the patients’ experience of being triaged directly to a psychologist for assessment. Theme-oriented, semi-structured interviews were made with 20 patients using qualitative content analysis. The results show that patients are active agents with own intent to see a psychologist when contacting the PHCC. Seeking help for mental illness was described as an effort-demanding process that is done during a limited critical period of time. The patients experienced an easy and smooth access to the preferred professional at the PHCCs, and that was stressed as being important and much appreciated. Patients do not experience that the nurses make the decision about what professional to see. The patients’ expectations when meeting the psychologist were wide and diverse. The structured assessment sometimes collided and sometimes united with these expectations, yielding different outcome satisfaction. The findings show that primary care triage to the psychologist offers a much appreciated patient choice and easy access to the preferred professional. The results also suggest that primary care triage may not be a nurse-led sorting system as originally intended. This could be seen as in line with the overall goal of increased patient choice. If there is an aspiration to increase the nurses’ decision-making in the triage there may be a need for more education to enhance the confidence and skill in sorting patients with mental illness. Furthermore, the results indicate a need for more prior information about the psychological assessment and possible outcomes to increase the patient possibilities of making an informed choice and know what to expect.

**Keywords:** *Triage, Patients’ experience, Primary care, Psychologist.*

## CLINICAL PSYCHOLOGY AND SOCIAL PSYCHOLOGY: POSSIBLE INTERSECTIONS

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### Abstract

This study discusses some points that emerged from a literature review about the intersection between clinical psychology and social psychology. It was identified that some recent works in clinical psychology have demonstrated a great interest in: (i) psychological practices in different settings (beyond the office), (ii) psychological practices involving people of low socio-economic status, (iii) social, economic and political aspects of the society, and (iv) social context as constituting the individual. Moreover, these works have articulated concepts such as: the psychological and the sociological, the subjectivity and the otherness, and the affection and the representation. Importantly, some of these works considered subjectivity as a concept that is socially and historically constructed. This notion is also found in works from social psychology. According to this perspective, the social and historical dimensions compose the human being and cannot be ignored. The human possibilities are developed based on the material and social worlds that cannot be taken as something external to individuals or to their psychological world. These worlds are interconnected. This idea can be associated with the concept of potential space proposed by Winnicott, which refers to a third space of experiences. This space belongs not only to internal or external spaces, but it is a symbol of union between the individual (internal world) and the outside world (external world). Based on that, Sandra Jovchelovitch stressed how the concepts of potential space and transitional phenomena and the interrelationships between the principles of pleasure and reality (described by Freud) contribute to the social psychology of the representations by introducing the emotions and the unconscious affections in the analysis of social representations. The social and historical constitution of individuals and the effort to reconcile subject and object are intersection points between clinical psychology and social psychology. Therefore, we have used this intersection points to ground our studies and support our professional interventions in the area of mental health in order to break the classical dualism between social and individual aspects and to contribute to less reductionist professional practices.

**Keywords:** *Clinical Psychology, Social Psychology, Interface.*

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### 1. The Psychology and its theoretical diversity

The diversity of psychological knowledge is a reality known by psychologists and students. However, although there is no integrated psychological knowledge, the theories are not completely disconnected (Figueiredo, 2011).

Costa and Brandão (2005) argued that the complexity of the objects of psychology requires a theoretical and methodological diversity. The focus on a specific approach without taken into account this diversity may hamper the ability of professionals to promote the well-being of individuals and communities. The challenge is to foster dialogue between different theoretical perspectives and recognize convergent and divergent aspects among them, without reducing practices to one or another perspective.

The complexity of psychological phenomena, as well as the variety of psychological professional practices increasingly demands dialogue between the areas of psychology.

In this study, we will present discussion points that emerged from a literature review about the intersection between clinical psychology and social psychology.

## **2. Clinical Psychology as a field in transformation**

The literature review indicated changes in the area of clinical psychology (Ferreira-Neto, 2008; Nery & Costa, 2008; Dutra, 2004; Féres-Carneiro & Lo Bianco, 2003). Some authors highlighted the contrast between the classic clinical psychology and the “emerging clinical practices” (Dutra, 2004; Féres-Carneiro & Lo Bianco, 2003).

The classical clinical psychology practices are characterized by (i) emphasis on the medical model; (ii) individual practice at an office; and (iii) attention directed primarily to the individuals and their intrapsychic issues. On the other hand, the “emerging clinical practices” are characterized by a greater interest in: (i) psychological practices in different settings (beyond the office), (ii) practices involving people of low socio-economic status, (iii) social, economic and political aspects of the society, and (iv) social context as constituting the individual. Therefore, the great value attributed to the social context is an important element of this new framework of clinical psychology.

According to D'Allonnes (2004), in clinical psychology the social dimension is inherent to individuals. In this sense, it is not possible to think of individuals outside of their social context and to ignore the effects of social transformations on individuals (Vilhena, 2009).

Thus, emergent clinical psychology studies have articulated aspects such as: (i) the psychological and the sociological, (ii) the subjectivity and the otherness, and (iii) the affection and the representation. Furthermore, they have addressed a conception of subjectivity that is socially and historically constructed. This conception can also be found in works from social psychology. According to social psychology, the social and historical dimensions compose the human being and can not be ignored (Lane, 2004).

Bock (2001) posited that the human possibilities are developed based on the material and social worlds that cannot be taken as something external to individuals or to their psychological world. These worlds are interconnected. Thus, subjectivity and objectivity do not exist separately in different worlds, but they are intertwined and constitute one another.

This literature review discusses the following points of contact between clinical psychology and social psychology: (i) the social and historical constitution of individuals; (ii) the effort to reconcile the subject and the object, the social world and the psychological world; and (iii) the integration of opposites and paradoxes.

We present next the interface between two theories: the Winnicott's psychoanalysis and the social representations theory, proposed by Moscovici.

## **3. The emotional development theory by Winnicott and the social representations theory by Moscovici: The coexistence of paradoxes**

Although the emotional development theory and the social representations theory are rooted in different epistemological perspectives, these theories are articulated by one important common point: the interaction between subject and object, individual and society, and internal and external world (Pombo-de-Barros & Arruda, 2010).

Winnicott's theory emphasizes the importance of the environment for the emotional development. According to Winnicott, there is no such thing as an individual baby - there is a nurturing dyad, a relationship between a baby and a mother. On the other hand, the social representations theory stresses the role of the individuals in the construction of knowledge. Individuals actively construct the reality in which they are embedded.

According to Jovchelovitch (2008), the concepts of potential space and transitional phenomena, proposed by Winnicott, contribute to the social psychology of the representations by introducing the emotions and the unconscious affections in the analysis of social representations.

The concept of potential space refers to a third space of experiences. This space belongs not only to internal or external spaces, but it is a symbol of union between the individual (internal world) and the outside world (external world).

In the same way, social representations are neither centered on isolated individuals nor in society as an abstract space, but they are processes of mediation (Jovchelovitch, 1996). It is in



the space of interplay between the subjective and objective that we can better understand the symbolic activity and the social representations.

Accordingly Jovchelovitch (1996):

The potential space, the space of symbols, both links and separates the subject and the object-world. Thus, it is of the essence of the potential space to acknowledge a shared reality-the reality of others. Yet it is a creative acknowledgement, which retains the imaginative and signifying character of human agency. Social representations also express this space. It is in the space of mediation between social subjects and alterity, where they struggle to make sense of and to give meaning to the world, that we find the workings of social representations. Thus social representations emerge and circulate in a space of inter-subjective reality (Jovchelovitch, 1996).

Based on this articulation, we consider that social representations are constructed in the superposition of individuals' potential spaces. These representations are not internal or individual representations. On the other hand, they are not reproduced in the external world. Moscovici (2003) highlighted that individuals are not passive recipients, but they reconstruct the reality in their representations. Therefore, the representations can take place in this third space, in this intermediary space, between the internal and external realities.

Another articulation between these theories is the coexistence of opposites, contradictions, and paradoxes. According to Winnicott (1975), the paradox is not something that should be solved. Jovchelovitch (1995) stated that the child, in the potential space, has a brief experience of creating what is already there to be found. Winnicott proposed an analysis that reconciles these ideas on the notion of intermediate area.

The Social Representations Theory also allows the coexistence of different conceptions in the same representation.

Because they are the social action of individuals in relation to other individuals they can only be understood against the background of one's positioning within communities and cultural contexts. And it is because they are grounded in different socio-cultural contexts that social representations emerge as plural and heterogeneous fields (Renedo & Jovchelovitch, 2007, p. 782).

The concept of cognitive polyphasia, found in Moscovici's study of psychoanalysis in France, expresses this plurality of representational fields and the co-existence of different and sometimes conflicting styles of thoughts, meanings, and practices in the same individual or group. This concept "help us to understand the multiplicity of voices that speak through individual speakers and within social fields" (Renedo & Jovchelovitch, 2007, p. 783).

#### **4. The professional work of psychologists and its interface with the clinical and social dimensions**

In this study we discussed the interface between clinical psychology and social psychology and the intersections between the Winnicott's Psychoanalysis and the Social Representations Theory.

Our research has also discussed the different professional settings of psychologists, beyond the office, and the relevance of social and historical context in the constitution of subjectivity. We understand that these issues impose the need for revision and creation of new forms of intervention based on absolute scientific and theorist rigor.

These ideas have based our professional interventions with children and adolescents in different social contexts. The intersection between clinical psychology and social psychology allows us to intervene in the interface among the clinical, social and, political dimensions.

In our interventions, we are concerned to refrain from assessments with moralistic character, respecting the values, knowledge, and behaviors of adolescents. The diversity of youth conditions is observed and respected through the different youths' opinions and ways of being presented during the interventions. Thus, we developed interventions that

highlight the uniqueness of each youth, providing a welcoming setting to the needs of each one, without, however, losing the collective aspect as a guide.

In the interventions, we discuss issues that belong to the shared space among the adolescents. The stories, discussions, affections expressed by them are not possessions inside them and are not reproductions of the social context, but part of a third area of intersection between the inner world and outer world, between subjectivity and social context.

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## AN EXAMINATION OF THE RELATIONSHIP BETWEEN INTELLIGENCE AND ATTACHMENT IN ADULTHOOD

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### Abstract

Although intelligence and attachment have both been thoroughly studied, their relationship has been strangely neglected, particularly when it comes to the adult population. Our study sought to fill this gap in the literature and test the hypothesis that securely attached individuals would perform better on standard tests of intelligence than individuals with insecure attachment patterns. The study also addressed the question whether particular aspects of intelligence (e.g., verbal/nonverbal reasoning) are differently related to the dimensions defining quality of attachment (e.g., anxiety and avoidance). Participants in the study were 262 adults (143 male, age range 21-61), who were administered a battery of intelligence tests, as well as two measures of attachment: the ECR-R and QAA-R. The latter instrument was also used to categorize subjects into four attachment patterns: secure, dismissing, preoccupied, and fearful. The results of an ANOVA indicate that there are significant differences between the four attachment patterns on a *g*-factor of intelligence ( $F_{(258, 3)}=19.637, p=.000$ ), with post hoc tests revealing that the “secure” group scores significantly higher on *g* than either of the three “insecure” groups. The same pattern of results is obtained for both verbal and nonverbal reasoning, as well as general knowledge. Although the differences between the three “insecure” groups are not always significant, there is a clear trend for the “fearful” to be the lowest-scoring group, regardless of the intelligence test employed. An inspection of the correlations between attachment dimensions and intelligence further reveals that ECR-*Anxiety* shows a stronger relationship to intellectual ability ( $r = -.296 - -.408$ ) than does ECR-*Avoidance* ( $r = -.139 - -.247$ ), though all the correlations are significant ( $p < .05$ ). With respect to QAA-R, the strongest correlation with intelligence is found for the *Negative self* ( $r = -.288 - -.402, p = .000$ ), *Mentalization* ( $r = .296 - .394, p = .000$ ), and *Negative others* subscales ( $r = -.229 - -.338, p = .000$ ); the only subscale not related to intellectual ability is *Use of secure base*. The results confirm our initial hypothesis that secure attachment represents an asset when it comes to intellectual performance, even beyond childhood, and on both verbal and nonverbal tests of ability.

**Keywords:** *Intelligence, Verbal reasoning, Nonverbal reasoning, Attachment patterns, Attachment dimensions.*

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### 1. Introduction

Building on the premises of attachment theory (Bowlby, 1969), several empirical studies have addressed the issue of the relationship between attachment and intelligence. The basic hypothesis was that mothers who were more sensitive would have securely attached children, and that growing up in such dyads would provide children with the perfect implicit instruction in social cognition, reinforce their language acquisition, and boost their IQ. Conversely, it was expected that anxious mothers would raise insecurely attached children, who would have to cope with the parent’s unavailability and/or unpredictability, and thus have less psychological resources to develop their cognitive capacities to the fullest.

Indeed, the influence of mothers’ sensitivity on the acquisition of language in their offspring proved to be significant across research studies (De Ruiter & Van Ijzendoorn, 1993). Intelligence, on the other hand, turned out to be only weakly correlated to attachment, according to 25 studies published up to 1991 (Van Ijzendoorn, Dijkstra, & Bus, 1995). More recently, however, it has been shown that securely attached 3-year-olds scored as much as 12 points higher on the Stanford-Binet intelligence test than did their insecurely attached counterparts (Crandall & Hobson, 1999), and the latest data confirm a significant correlation between attachment status and IQ scores in 7-10 year old gifted children (Wellisch, Brown, Taylor, Knight, Berresford, Campbell et al., 2011).

While addressing some cognitive consequences of secure/insecure attachment in children, research has generally neglected the possible influence of (children's/parental) intelligence on the capacity to form secure attachments (for an exception see Stievenart, Roskam, Meunier, & Van de Moortele, 2011). Moreover, it has completely failed to investigate the attachment-intelligence relationship beyond childhood. In reviewing the literature, we were unable to find even a single study dealing with the association of intelligence and attachment in adults, although establishing such a connection would seem relevant for both clinical practice and intellectual assessment.

Working within this gap in the literature, the present study sought to test the hypothesis that securely attached adults would perform better on standard tests of intelligence than individuals with insecure attachment patterns. The study also addressed the question whether particular aspects of intelligence (e.g., verbal/nonverbal reasoning) would be differently related to the dimensions defining quality of attachment (e.g., anxiety and avoidance).

## **2. Method**

### **2.1. Participants**

Participants in the study were 262 adults employed at various positions in a large dairy concern. The sample was balanced in terms of gender: 143 (54.58%) participants were male and 119 (45.42%) were female. Participants' age ranged from 21 to 61 (average 40.49, SD 8.165).

### **2.2. Instruments**

Two instruments were used to assess attachment quality.

The modified Experiences in Close Relationships-Revised (ECR-R, Fraley, Waller, & Brennan, 2000) is a 36-item questionnaire assessing attachment Avoidance (odd items) and attachment Anxiety (even items) in close relationships in general. The Serbian modified version (SM-ECR-R), used in this study, has been found to have good reliability and validity (Hanak & Dimitrijevic, in press).

The Revised Questionnaire for Attachment Assessment (QAA-R, Hanak 2004) is a comprehensive self-report measure of attachment, comprising the following seven subscales, with 11 items each: Use of secure base, Anxiety about losing secure base, Unresolved family traumatization, Negative working model of self, Negative working model of others, Poor anger management, and Capacity for mentalization. Based on their QAA-R profile, respondents can also be categorized into one of the four attachment patterns: secure, preoccupied, dismissing, and fearful (Bartholomew & Horowitz, 1991). The QAA-R has demonstrated good validity and internal consistency (whole-scale  $\alpha = .89$ , alphas for subscales are in the .79-.88 range).

Participants' cognitive abilities were assessed with a battery of three commonly used intelligence tests: an 18-item version of the Raven's Advanced Progressive Matrices (assessing figural reasoning), a set of Verbal Analogies, and a General Information test (assessing verbal reasoning and knowledge, respectively). In a principal components analysis, the three tests yielded a single factor, which is further referred to as *g* and which served as a global measure of intellectual ability.

Since preliminary analyses had indicated significant gender differences on all measures of cognitive ability, further analyses were based on standardized scores computed separately for the male and female subsamples.

## **3. Results**

### **3.1 Differences between attachment patterns in intellectual ability**

To explore the differences between attachment patterns across the three aspects of intellectual ability and *g*, a series of ANOVAs were conducted. The main results of these analyses are summarized in Table 1.

**Table 1:** *Summary of ANOVA results*

	secure, N=62 M (SD)	dismissing, N=62 M (SD)	preoccupied, N=91 M (SD)	fearful, N=47 M (SD)	F	p	$\eta^2$
Raven's Matrices	.640 (.723)	.102 (.866)	-.216 (.984)	-.560 (1.045)	18.037	.000	.173
Verbal Analogies	.550 (.876)	.127 (.800)	-.202 (1.030)	-.503 (.969)	13.541	.000	.136
Information	.433 (.837)	.069 (.961)	-.126 (.985)	-.419 (1.065)	7.791	.000	.083
g-factor	.651 (.797)	.123 (.814)	-.220 (1.000)	-.596 (.961)	19.637	.000	.186

The ANOVAs reveal significant effects for attachment patterns for all four measures of intelligence, the effect being strongest for *g* ( $F_{(3, 258)} = 19.637$ ,  $p = .000$ ), and weakest for Information ( $F_{(3, 258)} = 7.791$ ,  $p = .000$ ). According to the values of partial  $\eta^2$ s, attachment quality explains 8-19% of the variation in intelligence. Post hoc tests (Scheffe) confirm that the secure group scores significantly higher than any of the remaining three groups across all measures of cognitive ability. Although the differences between the three insecure groups are not always significant, there is a clear trend for the fearful to be the lowest-scoring, regardless of the intelligence test employed.

A discriminant analysis with three aspects of intelligence (figural reasoning, verbal reasoning, general knowledge) as independent variables, and secure vs. insecure attachment patterns as the dependent, resulted in a significant discriminant function (Wilks's  $\lambda = .854$ ,  $\chi^2 = 40.671$ ,  $df = 3$ ,  $p = .000$ ), with a canonical correlation of .382 (i.e., 14.6% of variance in the dependent variable explained). The classification results reveal that 68.7% of participants were correctly classified as having either a secure or one of the insecure attachment patterns.

### 3.2 Correlations between multiple dimensions of attachment and intelligence

To further explore the relationships between particular aspects of attachment and intelligence, bivariate correlations between the ECR-R/QAA-R subscales and the four intelligence measures were computed. These are presented in Table 2.

**Table 2:** *Correlations between dimensions of attachment and intelligence*

	2	3	4	5	6	7	8	9	10	11	12	13
1. ECR-Av	.454**	-.408*	.227**	.278**	.418**	.487**	.271**	-.402**	-.191**	-.247**	-.139*	-.232**
2. ECR-An	1	.029	.567**	.594**	.742**	.568**	.542**	-.523**	-.355**	-.376**	-.296**	-.408**
3. QAA-SB		1	.304**	.008	-.052	.004	-.047	.282**	.022	.019	-.014	.013
4. QAA-An			1	.441**	.551**	.379**	.408**	-.325**	-.262**	-.320**	-.198**	-.313**
5. QAA-T				1	.618**	.405**	.492**	-.343**	-.240**	-.250**	-.196**	-.274**
6. QAA-NS					1	.526**	.530**	-.588**	-.361**	-.356**	-.288**	-.402**
7. QAA-NO						1	.434**	-.299**	-.320**	-.301**	-.229**	-.338**
8. QAA-AM							1	-.361**	-.200**	-.148*	-.101	-.179**
9. QAA-M								1	.334**	.342**	.296**	.394**
10. RPM									1	.582**	.447**	.820**
11. VA										1	.522**	.860**
12. GI											1	.786**
13. g-factor												1

ECR-Av – ECR Avoidance, ECR-An – ECR Anxiety, QAA-SB – Use of secure base, QAA-An – Anxiety about losing secure base, QAA-T – Unresolved family traumatization, QAA-NS – Negative working model of the self, QAA-NO – Negative working model of others, QAA-AM – Poor anger management, QAA-M – Capacity for mentalization, RPM – Raven's Progressive Matrices, VA – Verbal Analogies, GI – General Information, g-factor – g-factor of intelligence

\*\* $p < .01$ ; \* $p < .05$ .

Shaded area – Correlations between attachment dimensions and indicators of intelligence

Looking at the shaded area of Table 2, it is clear that all correlations between intelligence and attachment are significant, with the exception of QAA-*Use of secure base* – which is not related to any indicator of intellectual ability, and QAA-*Anger management*, which is not related to General Information. The strongest correlations are found between intelligence and the following dimensions of attachment: ECR-*Anxiety*, QAA-*Negative model of the self*, and QAA-*Capacity for mentalization*. In each instance, General information is the facet of intelligence exhibiting the lowest correlations with attachment quality. ECR-*Avoidance* and QAA-*Anxiety about losing the secure base* are most strongly correlated with Verbal reasoning, whereas QAA-*Anger management* correlates most strongly with Figural reasoning; the rest of attachment dimensions are most strongly correlated with *g*.

### 3.3. Additional analyses: Using attachment dimensions to predict *g*

A stepwise regression analysis, with the *g*-factor as the criterion variable, and multiple attachment dimensions entered as predictors, yielded three significant models. The model making the best prediction ( $R = .477$ , Adjusted  $R^2 = .219$ ) included three attachment dimensions as predictors: ECR-*Anxiety* ( $\Delta R^2 = .167$ ), QAA-*Capacity for mentalization* ( $\Delta R^2 = .045$ ), and QAA-*Negative model of others* ( $\Delta R^2 = .016$ ).

## 4. Discussion and Conclusions

The results of the current study reveal that attachment and intelligence in adulthood are indeed related. The four attachment patterns have been found to differ significantly in terms of intellectual ability, with the secure group scoring the highest and the fearful receiving the lowest scores across several measures of intelligence. Furthermore, it has been shown that a function of verbal reasoning, nonverbal reasoning, and general knowledge makes a significant discrimination between securely and insecurely attached individuals. Altogether, the results confirm our initial hypothesis that secure attachment is associated with better intellectual performance, even beyond childhood, and on both verbal and nonverbal tests of ability.

Focusing on particular dimensions of attachment quality, it should be noted that the highest correlations with measures of intellectual ability (most prominently with *g*) are found for *Attachment Anxiety*. One obvious interpretation of this finding is contained within the very propositions of attachment theory: the lack of a secure base provokes anxiety, which disrupts intellectual development by inhibiting free exploration and information gathering. If we should take this to be the mechanism behind the correlations established, then the results of the present study could be understood as indicating that the negative effects of anxiety on intellectual development are long-term and general. However, another possibility should also be taken into account: it may be that attachment anxiety does not affect intellectual development itself as much as it affects performance in an anxiety-provoking situation, such as taking a test. Speaking in favor of this hypothesis are the findings that (a) the effect of attachment patterns and (b) the correlation with Anxiety is lowest for *General Information* – an aspect of intelligence which is tested in time-relaxed conditions and probably least influenced by test-anxiety.

Another noteworthy finding is that of moderate positive correlations between intelligence and *Mentalization*. In fact, this may well be the first empirical demonstration of the connection between the capacity for mentalization and intellectual ability – a connection which, we believe, deserves further scrutiny, as mentalization has so far been linked only to attachment and trauma.

Beyond this, the present findings bear important practical implications for both clinical practice and intellectual assessment. First, they provide support to intervention programs aimed at improving maternal sensitivity in order to raise the likelihood of secure attachment and better overall functioning of the growing child. Even more so, they corroborate the idea of focusing clinical treatments on improving mentalization and relieving attachment anxiety, as has been done in the so-called “Mentalization Based Treatment”. The MBT has thus far been shown to help clients with Borderline Personality Disorder to stay in education or work without relapse for longer periods of time (Bateman & Fonagy, 2008). It would be interesting to see whether this treatment would also improve intelligence test performance. Second, since the possibility

exists that lower test achievement is consistently related not only to cognitive problems, but to attachment disorganization as well, an important implication is that one should consider attachment quality when assessing intellectual abilities. This recommendation would be in accord with the integrative method of test results interpretation (Kamphaus, 2001), stressing the importance of various background information as part of validating and interpreting intelligence test scores. According to the results of this study, attachment quality may well be that sort of background information which would lead to a better understanding of intelligence test performance, especially with at risk populations (e.g., persons who have grown up without parents, traumatized persons, delinquents, etc.), and when assessment results seem to be below the subject's capacity.

Finally, as regards directions for future research, we believe that the present study justifies a more thorough investigation of the possible interaction between intelligence and attachment – one which would employ a longitudinal design and include both children and parents.

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# THE IMPACT OF PARENT-CHILD AND PEER RELATIONSHIPS ON DEPRESSIVE SYMPTOMS AND SELF-ESTEEM IN EARLY ADOLESCENCE

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## Abstract

The main purpose of the study was to examine the impact of parent-child and peer relationships on the occurrence of symptoms of depression in early adolescence, as well as the level of key components of adolescent self-esteem. Our results are in agreement with previous research findings which demonstrate different impact of parent-child and peer relationships on self-esteem in adolescents, as well as important associations with depressive symptoms in this age.

**Keywords:** *Parents, Peers, Depressive symptoms, Self-esteem, Early adolescence.*

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## 1. Introduction

Early adolescence is a period of vulnerability to depressive symptoms. The depression in children and adolescents is also associated with an increased risk of suicidal behaviors (Birmaher et al., 1996). Close relationships to parents and peers have proved a significant impact on both mental well-being and risk behavior (Walsh et al., 2010). Studies further show (Wilkinson, 2004) that the role of peer and parental attachment on psychological health is primarily mediated by self-esteem.

## 2. Research objectives and design

The study is based on yet unpublished findings of our extensive survey focusing on certain aspects of problem behaviour in Czech adolescents (Regner et al., 2012). The main purpose of the study was to examine the associations of parent-child and peer relationships and the occurrence of symptoms of depression in early adolescence, as well as the level of key components of adolescent self-esteem. Given the research objectives, a quantitative cross-sectional correlation study was conducted.

## 3. Methods

The data was collected through random sampling, with an increased emphasis on ethical issues involved. First, a pilot study (N = 235) was conducted, successfully validating basic psychometric properties of the research tools used. In the next stage, the self-report measure was administered to a large sample (N = 1708) selected to match the target population of adolescents aged between 11-16 years (M = 13.65), with a gender distribution of 52% female, 48% male.

Two standardized self-report measures were used:

1) Perceived Competence Scale for Children (Harter, 1982, 1985, 2012). This instrument is designed to measure the self-evaluative processes of children over 5 domains: scholastic competence, social acceptance, athletic competence, physical appearance, and behavioral conduct. The global self-worth scale is not computed as the sum of specific competencies - it is a separate score, reflecting a global concept of self. The scales has shown good internal validity both in our pilot study and in the large sample.

2) Children's Depression Inventory CDI (Kovacs, Beck, 1977; Kovacs, 1992) The CDI evaluates the presence and severity of specific depressive symptoms in youth; depression is seen as a syndrome, not a specific behaviour. The instruments yields five subscales (Negative Mood; Ineffectiveness; Negative Self-Esteem; Anhedonia; Interpersonal Problems), and a total score



ranging from 0 to 54 in raw scores. Kovacs (1992) recommended 13 as a cut-off score for clinical populations and 19 as the cut-off score for community samples. The proportion of the adolescents with the total score indicating higher risk of clinical depression in our sample was 35%. All the scales had a good internal consistency in our samples.

The set of items asking about the quality of respondents' relationships with their parents and peers was a part of the instrument constructed only for this study. The composite scores indicating the quality of relationship range from 1 to 4 for each scale, the 1 representing excellent relationships and 4 poor relationships. The distributions of the scores were positively skewed; therefore the log transformed variables were used as predictors in regression analysis.

#### 4. Results

Results of linear regression analysis (see Tab. 1) revealed some interesting connections of the parent-child and peer relationship quality and different components of self-esteem to the depression scores. In the first step of the analysis, all three relationship variables entered into the model. Only 12,3% of CDI scores variance could be accounted to the quality of relationships. In the next block, the SPPC scores were added by stepwise method. The global self-worth score added another 19,5% of explained variance of the depression scores, while the scholastic competence, social acceptance and physical appearance accounted only for another 4%, 2,3% and 0,8% respectively. The athletic competence and behavioral conduct were among excluded predictors in all regression models. The final model with the relationship composite scores and 4 components of self-esteem accounted for total 38,8% of CDI scores variation.

**Table 1:** *Regression Model Summary for Prediction of CDI Total Scores*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	
					R Square Change	Sig. F Change
1	.355 <sup>a</sup>	.126	.123	7.173	.126	.000
2	.567 <sup>b</sup>	.321	.318	6.326	.195	.000
3	.601 <sup>c</sup>	.361	.357	6.140	.040	.000
4	.620 <sup>d</sup>	.384	.380	6.034	.023	.000
5	.627 <sup>e</sup>	.393	.388	5.992	.009	.000

a. Predictors: (Constant), Relationship with Peers, Relationship with Mother, Relationship with Father

b. Predictors: (Constant), Relationship with Peers, Relationship with Mother, Relationship with Father, SPPC Global Self-Worth

c. Predictors: (Constant), Relationship with Peers, Relationship with Mother, Relationship with Father, SPPC Global Self-Worth, SPPC Scholastic Competence

d. Predictors: (Constant), Relationship with Peers, Relationship with Mother, Relationship with Father, SPPC Global Self-Worth, SPPC Scholastic Competence, SPPC Social Acceptance

e. Predictors: (Constant), Relationship with Peers, Relationship with Mother, Relationship with Father, SPPC Global Self-Worth, SPPC Scholastic Competence, SPPC Social Acceptance, SPPC Physical Appearance

##### 4.1. The Associations of Parent-Child and Peer Relationships to Self-Esteem Domains and Depression Dimensions

The pattern of associations among the quality of relationships and the subscales of the CDI can be seen in Tab. 2. The correlations were generally low, ranging from 0,085 to 0,262. The bad quality relationship had the strongest associations with CDI domains of Interpersonal Problems and Anhedonia.

**Table 2:** *Spearman's Correlations between CDI Scales and Relationship Variables*

	Relationship with Mother	Relationship with Father	Relationship with Peers
CDI Negative Mood	.207**	.213**	.165**
CDI Interpersonal Problems	.217**	.191**	.206**
CDI Ineffectiveness	.180**	.172**	.085**
CDI Anhedonia	.202**	.225**	.245**
CDI Negative Self-Esteem	.202**	.199**	.201**
CDI Total	.253**	.262**	.243**

\*\**. Correlation is significant at the 0.01 level (2-tailed).*

The Tab. 3 shows the pattern of associations among the quality of relationships and the components of SPPC. The perceived social acceptance had the strongest connection to the quality of peer relationships. Bad relationships with parents were associated with low levels of self-esteem in the academic, physical appearance and behavioural conduct domain, as well as low general self-esteem.

**Table 3:** *Spearman's Correlations between SPPC Scales and Relationship Variables*

	Relationship with Mother	Relationship with Father	Relationship with Peers
SPPC Scholastic Competence	-.133**	-.117**	-.060*
SPPC Social Acceptance	-.059*	-.073*	-.333**
SPPC Athletic Competence	-.074**	-.068*	-.119**
SPPC Physical Appearance	-.121**	-.117**	-.111**
SPPC Behavioral Conduct	-.168**	-.127**	-.079**
SPPC Global Self-Worth	-.185**	-.169**	-.155**

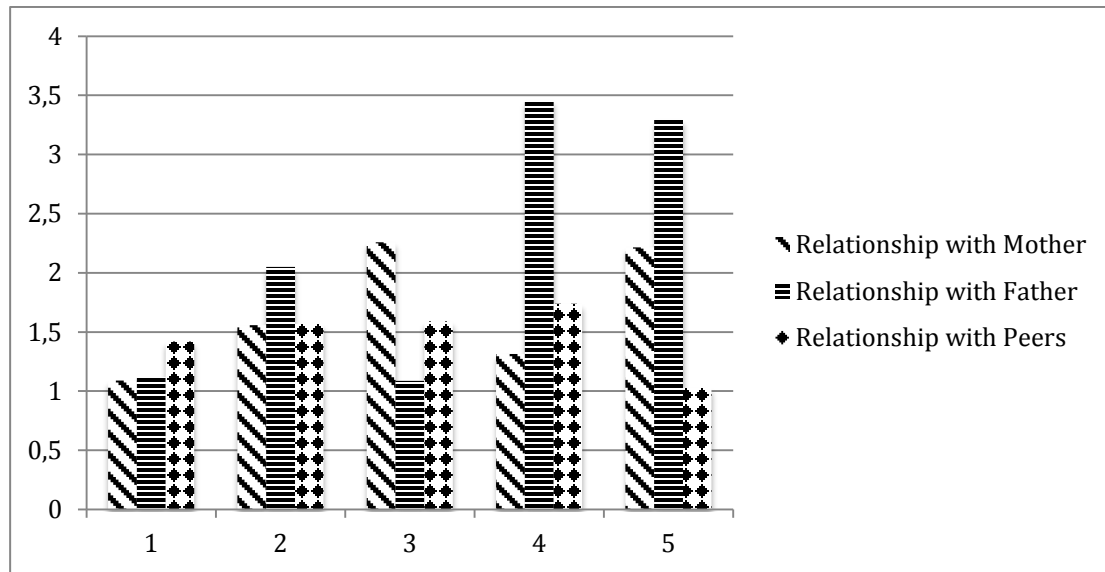
\*\**. Correlation is significant at the 0.01 level (2-tailed).*

\**. Correlation is significant at the 0.05 level (2-tailed).*

#### 4.2. Parent-Child and Peer Relationships Typology

In order to further explore the impact of parent-child and peer relationships on the occurrence of symptoms of depression, we conducted exploratory cluster analysis (by the k-means method) on the three composite scores of relationship to mother, father and peers. As a validation method, we randomly split our sample and performed the cluster analysis on each half of the sample separately. The resulting typology was comparable for both subsamples. In Fig. 1, there are presented the final cluster centers means for the total sample (N=1632).

The most frequent Cluster 1 (N= 771) is characterized by great relationships with both parents and very good relationships with peers. The youths in the Cluster 2 (N=525) report still relatively good relationships with both their parents and peers. The members of the Cluster 3 (N=169) have the worst relationship with their mother and the best with their father. The Cluster 4 (N=130) is described by a very low quality of relationship with father, while the relationship to mother is good (75,2% of this cluster members have divorced parents). The adolescents in the least frequent Cluster 5 (N=37) report bad relationship to both of their parents but excellent relationship to peers (again, 72,2% of this cluster members have divorced parents).

**Fig. 1:** Final Cluster Centers Means for Relationship Variables

There were found significant differences between the clusters in the proportion of adolescents falling into the risk category of depression (according to CDI Total Score – see above). Only 21,8% of the adolescents in Cluster 1, reporting the ideal relationships with their parents, had higher risk of clinical depression, compared to 44,7% or 49% respectively of the adolescents of Cluster 3 and 4, reporting bad relationship either with their mother or father. The highest proportion of adolescents with the risk of clinical depression – 63,6% - have been found in Cluster 5, reporting bad relationship with both of their parents and excellent peer relationships.

**Table 4:** The association between cluster membership and CDI risk category  
( $\chi^2=93,99$ ;  $df=4$ ;  $p<0,001$ )

Cluster Membership		CDI_risk		Total
		NO	YES	
1	Count	487	136	623
	% within Cluster	78.2%	21.8%	100.0%
2	Count	243	193	436
	% within Cluster	55.7%	44.3%	100.0%
3	Count	69	63	132
	% within Cluster	52.3%	47.7%	100.0%
4	Count	51	49	100
	% within Cluster	51.0%	49.0%	100.0%
5	Count	12	21	33
	% within Cluster	36.4%	63.6%	100.0%
Total	Count	862	462	1324
	% within Cluster	65.1%	34.9%	100.0%

## 5. Discussion and Conclusion

Our results are in agreement with previous research findings (Gullone, Ollendick, & King, 2006) which demonstrate different impact of parent-child and peer relationships on self-

esteem in adolescents, as well as important associations with depressive symptoms in this age. Studies of DuBois (DuBois et al, 1999; DuBois et al., 1999) indicates that the balance between parent and peer support is an important factor: peer relationships can be harmful when parental support is inadequate. This is in agreement with our finding that adolescents reporting poor relationships with both parents and excellent peer relationships are at much greater risk of clinical depression than adolescents with good parent-child relationships.

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## **RELATIONSHIPS WITH PARENTS AND PEERS, ATTITUDES TOWARDS SCHOOL, AND PREFERRED SPARE-TIME ACTIVITIES IN YOUNG ADOLESCENTS REPORTING SELF-HARM**

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### **Abstract**

The study is an extension of our large-scale survey addressing the issue of self-harm prevalence among adolescents in a broader context. The main objective was to examine the connections between the occurrence of self-harming behaviour in young adolescents, and the quality of their relationships with parents and peers, attitudes to school, academic aspirations, and preferred spare-time activities. Significant associations between self-harming behavior of young adolescents and the quality of their relationships with parents and peers, attitudes to school, and preferred spare-time activities were found; these findings may have importance in targeting of the intervention programs.

**Keywords:** *Self-harm, Peers, Parents, School, Early Adolescents.*

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### **1. Research problem**

The study is an extension of our large-scale survey (Burešová & Hrubá, 2012; Hrubá, Klimusová & Burešová, 2012) addressing the issue of self-harm prevalence among adolescents in a broader context. The main focus is on the quality of relationships with both parents and peers in young adolescents reporting self-harm, their reported attitudes towards school, academic aspirations, and also their preferences for spending free time. The results obtained in the study should serve as a starting point for the development of adequate intervention programs for senior primary school students.

### **2. Research objectives**

The prevalence of self-injurious behaviour in the non-clinical population of adolescents is viewed by many authors (e.g. Nawaz, 2011) as connected to the issue of identity formation, a process in which parent and peer influence are believed to play a truly prominent role (Sartor & Youniss, 2002). At the same time, the maturation process in an individual is relatively full of conflicts both with the members of one's family as well as with one's peers. It is these conflict situations, perceived lack of understanding or feelings of betrayal, which are often cited as the triggers of the first episodes of self-harm (Whitlock, Powers, & Eckenrode, 2007; Adrien et al., 2011). Thus, our main objective was principally to examine the connections between the occurrence of self-harming behaviour in young adolescents and the quality of their relationships with parents and peers, since it is these significant others who constitute an inherent part of their psychosocial developmental contexts and exercise the greatest influence on the formation of their psychosocial environment.

The second research objective was to explore potential differences between adolescents reporting and not reporting self-harm in the area of school attitudes and academic aspirations, as school may become a significant source of psychological stress resulting in the acts of self-harm. This could be caused by increased pressure for good academic performance on the part of teachers and parents as well as the increased importance of peer bonds in this area (Poledňová, 2012). A minor goal, addressing the issue of self-harm prevalence in early adolescence from a broader perspective, was the exploration of preferred spare-time activities among this population.

### 3. Method

In accordance with the research objectives what we were interested in were quantitative, exploratory data, best obtainable through one-shot cross-sectional survey using self-report measures. The methods for measuring self-harm included the Self-Harm Inventory (Sansone, Sansone, & Wiederman, 1995) and the Self-Harm Behavior Questionnaire used by Gutierrez (Gutierrez, 2010). Other measures included a set of items addressing various issues relevant to the research focus described above.

#### 3.1. Data collection

The data was collected through random sampling, with an increased emphasis on ethical issues involved. First, a pilot study ( $N = 235$ ) was conducted, successfully validating basic psychometric properties of the research tools used. In the next stage, the self-report measure was administered to a large sample ( $N = 1708$ ) selected to match the target population of adolescents aged between 11-16 years ( $M = 13.65$ ), with a gender distribution of 52% female, 48% male. Personal experience with self-harming behaviour was self-reported in 341 out of 1708 (19.96 %) respondents.

Prior to the data analysis, the obtained sample was balanced in terms of age and gender. The total sample thus consisted of 1371 respondents (687, i.e. 50.11% female) containing an equal number of 13, 14 and 15-year-old adolescents ( $N = 457$  in each age group).

Next, the sample was further divided into three groups according to the experience with self-harm: respondents who had no experience at all ( $N = 784$ ), respondents who resorted to self-harm less than 5 times ( $N = 292$ ), and respondents whose experience with self-harm exceeded 5 cases ( $N = 295$ ). We also observed whether the respondents came from single-parent/divorced ( $N = 410$ ) or double-parent ( $N = 945$ ) families.

### 4. Results, Discussion and Conclusion

The results of the study yielded some valuable information which should help to complete the mosaic of the adolescent self-harm issue in a broader psychosocial context. Due to the complexity of the study, we present a selection of most relevant findings for better comprehensibility, dividing the outcomes into three major parts:

#### 4.1. Self-harm occurrence, perceived quality of relationships with parent and peers, and attitude towards school

The results of the ANOVA and LSD post-hoc tests show that significant differences emerged between the self-harm prevalence groups in almost all observed areas. In the area of family relationships, the group with no self-harm experience reported significantly better relationships with mother than both self-harm groups ( $F = 17.38$ ;  $p < .001$ ), with the frequent self-harm group reporting marginally worse relationships than occasional (< 5 times) self-harm group ( $p = .08$ ). The same was observed for relationships with father ( $F = 11.25$ ;  $p < .001$ ), with both self-harm groups scoring at the same level, showing worse relationships than respondents reporting no self-harm. This means that worse quality of parent-child bonds is associated with the occurrence of self-harm more-or-less regardless of the frequency of occurrence.

In contrast, no significant differences were found regarding the quality of the respondents' peer relationships. The fact that peer relationship quality does not seem to be related to the occurrence of self-harm is also supported by other results of our study which suggest that peers are those to whom self-harming adolescents are most likely to confide their self-harm experiences (in 67% of cases). This indicates that even adolescents practising self-harming behaviour appear to maintain good and supporting relationships with their peers.

Regarding attitude towards school, the group that showed significantly more negative attitude than the other two were the high frequency (5 or more times) self-harmers ( $F = 19.40$ ;  $p < .001$ ).

All of the abovementioned results are summarized in the diagram below (Fig. 1).

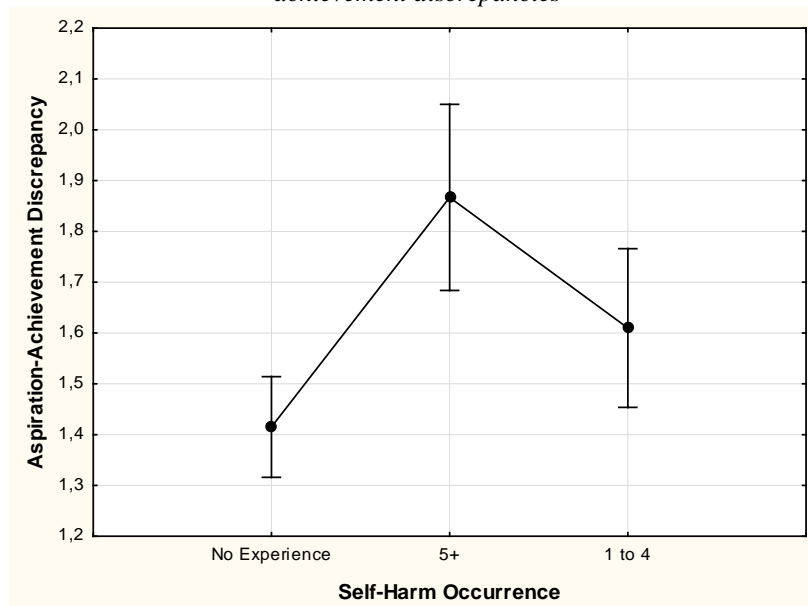
**Fig. 1:** Plot of means showing differences between the three self-harm occurrence groups regarding relationships with parents and peers and attitudes towards school



#### 4.2. Self-harm occurrence and academic aspirations

The analysis of academic aspirations in the three groups of adolescents yielded one interesting finding: As illustrated by the graph below (Fig. 2), there was a significant positive relationship between the occurrence of self-harming behaviour and the discrepancy between one's academic aspirations and the actual school grades. Significant differences were found between all three groups ( $F = 10.67$ ;  $p < .001$ ). This means that while adolescents who never practiced any self-harm at all seem to achieve as good grades as they wish for, those who have at least some experience with self-harm are more likely to fail to meet their own academic standards, with the frequent-occurrence self-harm group being the worst off.

**Fig. 2:** Differences between the three self-harm occurrence groups in self-reported aspiration-achievement discrepancies



### 4.3. Self-harm occurrence and leisure-time activity preferences

The results obtained from this part of the study were also considerably surprising. All three groups reported relatively great amount of time spent hanging out with friends. However, while the no self-harm and low-occurrence (< 5 times) self-harm groups scored relatively comparably in this area, the high-occurrence self-harmers reported spending as much as 5 hours/week more than the other two groups hanging out with their peers ( $F = 9.80$ ;  $p < .001$ ). Apparently, self-harmers in our sample do not seem to fit the profile of reclusive, socially withdrawn adolescents at all, but rather incline towards promoting and consolidating positive peer relationships and mutual sharing of experiences. At the same time, high-occurrence self-harmers also devote one hour per week more than their peers to sports club activities ( $F = 3.74$ ;  $p < .05$ ), which might indicate a tendency towards diffusing physical tension. This group also spends significantly more time attending to their physical appearance ( $F = 5.40$ ;  $p < .01$ ), which might signify an increased preoccupation with one's own body, but this finding could also potentially reflect one's attempts to conceal the consequences of self-injurious behaviour. Finally, it is also worth mentioning that the group of high-occurrence self-harmers spends as much as 2 hours more per week "doing nothing" ( $F = 4.48$ ;  $p < .01$ ).

A majority of respondents who reported self-harm (65.7%) had told someone else about the issue. In most cases (67.5%) the information was shared among peers; only 15.3% told their parents and just a mere 2% consulted a professional. This might be a logical implication of our findings regarding the differences between self-harm and non-self-harm groups of adolescents in the domain of parent-child relationships.

All of the alarming results summarized in this article should be taken into consideration in the development of effective intervention programs addressing the issue of self-harm in senior elementary school / junior high school students.

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## **FROM THE FIRST SIGNS TO DIAGNOSIS: THE “DIAGNOSTIC ODYSSEY” OF CHILDREN WITH FRAGILE X SYNDROME**

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### **Abstract**

This study aims to examine how the existence of the first signs of a developmental pathology are identified by mothers and professionals in cases of Fragile X Syndrome, and what paths are followed until the diagnosis of the genetic etiology. Some studies have described this period, between the first signs and diagnosis, as the “diagnostic odyssey”, since in the absence of screening procedures families tend to be involved in a huge amount of appointments and tests before they reach specific genetic evaluation. To better understand this pathway, we conducted a qualitative study with 45 families of children and young people between 4 and 22 years old, with FXS, focused on identifying early signs and progression of events leading up to the diagnosis. To analyze the data collected from interviews was used a Grounded Theory approach. The results indicate the existence of two major groups of children. The first one, of children with autistic traits, in which the first signs are usually identified between 6 and 12 months, but in a diffuse way difficult to be described by their mothers. The second group includes children who make key acquisitions in time until 24 months and only after this age tend to be detected, often indicated by the kindergarten because of difficulties in of language and speech. In the first group is very common a delay in referral for evaluation. In the second group, in addition to postpone the diagnosis, is made a provisional diagnosis of global developmental delay, but rarely progresses to an accurate diagnosis, which turns out to be done after 6 years. A reduction in this period, through an earlier diagnosis, would be of vital importance for the developmental intervention and the difficulties typical of these children could be better treated. Would, likewise, assist the family in their own emotional development in the presence of a clearer and more objective diagnosis.

**Keywords:** *Fragile X Syndrome, Diagnosis, Cognitive delay.*

## ATTACHMENT INSECURITY, EMOTIONAL ABUSE AND PHYSICAL ABUSE PREDICT SCHIZOTYPY IN A NON-CLINICAL SAMPLE

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### Abstract

**Objectives:** Schizotypy refers to latent personality organization that reflects individual proneness to psychosis and schizophrenia therefore research into schizotypy often has the aim of elucidating the etiology of schizotypal personality disorder and schizophrenia. Over the last few years a relationship has been demonstrated between childhood abuse /neglect and psychotic disorders such as schizophrenia and schizotypy). Alongside this, contemporary research has increasingly highlighted the role of attachment insecurity in the development of personality disorder. Several studies have indicated a relationship between attachment insecurity and the presence of schizotypal traits in adults it is apparent that childhood abuse and neglect rarely occurs within the context of psychologically healthy relationships therefore it is important to examine the contributions of attachment and childhood trauma together. Despite this there is no other study, to our knowledge, that assesses whether childhood abuse/trauma and attachment function as independent predictors. **Design:** Correlational design based on self-report questionnaires. **Methods:** 127 participants completed an online questionnaire battery comprising: the Schizotypal Personality Questionnaire- Brief Form (SPQ-B), the Experiences in Adult Relationships-Revised (ECR-R) and the Childhood Trauma Questionnaire (CTQ). Standard multiple regression was used to test whether attachment and childhood trauma variables significantly predict total schizotypy scores. **Findings:** The regression model was a reliable predictor of schizotypy levels ( $F(7,119) = 10.76, p < .005; R^2 = .39$ ), explaining approximately 39% of the variance in total schizotypy scores. Individually, attachment anxiety, attachment avoidance, emotional abuse and physical abuse were all significant predictors of schizotypy. Emotional abuse was the biggest predictor of schizotypy, accounting for 7% of variance. No effect was found for other types of childhood abuse or neglect. **Conclusions:** This study is the first to demonstrate that attachment and childhood experiences function independently as predictors of schizotypy. In some individuals, schizotypy may arise from adverse social environments, rather than through genetics. Although limited by the correlational, self report design, this study demonstrates that emotional abuse, physical abuse and insecure attachment relationship may be related to the development of schizotypal features. Future research should examine the effects of childhood trauma alongside the social context of attachment relationships.

**Keywords:** Schizotypy, Attachment, Emotional abuse, Physical abuse.

# THE POSTNONCLASSICAL METHODOLOGY OF PSYCHOLOGICAL SYNDROME ANALYSIS (VYGOTSKY-LURIA SCHOOL) IN CLINICAL PSYCHOLOGY: OPPORTUNITIES AND PERSPECTIVES

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## Abstract

The primary aim of this research is to show the high efficacy of the psychological syndrome analysis (Vygotsky-Luria School) for solving issues in the field of psychodiagnostics and psychotherapy within the framework of postnonclassical methodology. In our opinion, the syndrome approach applied in theoretical and practical fields of clinical psychology is highly efficient at the current state of the evolution of science due to the potential of the new methodological context of the postnonclassical model of rationality and completeness of cultural-historical theory proposed by L.S. Vygotsky concerning the person and its mind as a self-developing open systems. The main method of this study was psychological syndrome analysis (Vygotsky-Luria school). Techniques for the qualitative and statistical data analysis of clinical-and-psychological follow-up study (conducted for 15 years) were used. We examined 290 patients with mitral valve prolapse (MVP) and 73 healthy individuals. The results suggest that the syndrome is system-defined and has a multilevel structure. That is, the structure of the psychosomatic syndrome is determined by three factors, different from the neuropsychological syndrome, which is typically one-factorial. These factors are as follows: a motivational factor (characterized by the domination of the failure-avoidance motive and the unsatisfied need for self-approval); a disorder of emotion regulation factor; and a psychophysiological factor. We suggest that a psychosomatic syndrome analysis can be used for diagnostic and even prognostic tasks both in clinical psychology and medicine.

**Keywords:** *Postnonclassical methodology, Psychological syndrome analysis, Vygotsky-Luria school, Psychosomatic syndrome, Mitral valve prolapse (MVP).*

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## 1. Introduction

The present state of affairs (in general science, and clinical psychology, in particular) provides an illustrative example of the increasingly differentiated structure of scientific knowledge. The state is characterized by the marked 'methodological liberalism and pluralism', shaping in plenty various theoretical and applied branches of the science. Under certain conditions the increase in methodological pluralism may be regarded as a sign of crisis (Vygotsky, 1997). Hence, the issues of methodological reflection come to the foreground of scientific endeavors.

Subject matter of the present study gains further importance in the light of the interest theoretical and practical medicine exhibits for data of psychological diagnostics.

## 2. Research Objectives

The primary aim of this research is to show the high efficacy of the psychological syndrome analysis (Vygotsky-Luria school) for solving issues in the field of psychodiagnostics and psychotherapy within the framework of postnonclassical methodology.

Mitral valve prolapse (MVP) is a common cardiac pathology. According to published data, MVP occurs in 30.8% to 42% of the population (Scordo, 2007). Researchers note a considerable dissonance between the numerous subjective complaints of patients and the dramatic scarcity of data from objective medical studies; they also note a high incidence of anxiety disorders among MVP patients (Coplan, et al., 1992; Scordo, 2007).

We take the example of description of a psychosomatic syndrome with MVP patients to demonstrate that a psychosomatic syndrome may serve as a means not only for establishing a diagnosis, but for making prognoses both in clinical psychology and in medicine.

The present research relates a psychosomatic syndrome to an invariable set of psychological, psychovegetative, and genuine somatic symptoms and syndromes. The structure and dynamics of a psychosomatic syndrome may be hypothetically shaped by a number of causes (factors<sup>1</sup>) of both psychological and psychophysiological nature, including morphofunctional factors, which distinguish psychosomatic syndromes from neuropsychological ones. The suggested definition of the concept of *psychosomatic syndrome* appears to be epistemologically correct from a perspective of postnonclassical methodology.

### 3. Background

Basic methodological principles of this study are: the general scientific principle of systematization, the principles of the postnonclassical scientific paradigm, and the principles of the psychological syndrome analysis (Vygotsky-Luria school).

The principle of syndrome analysis of psychic phenomena, which is one of the most essential principles in the methodology of Russian clinical psychology (the Vygotsky-Luria school) and whose heuristic approach has been proven in such branches of clinical psychology as neuropsychology and abnormal psychology, has recently gained increasing application in psychosomatics.

In recent times the Russian psychology has witnessed repeated attempts of methodological analysis of psychological accomplishments with conducted on the basis of a widely-known classification of the types of scientific rationality, suggested by V.S. Styopin. The classification provides grounds for designation of the following types (and stages) in development of scientific knowledge: *classical*, *nonclassical* and *postnonclassical* (Styopin, 2003; Kornilova & Smirnov, 2011; Zinchenko & Pervichko, 2012 (a), etc.). V.S. Styopin suggests the following criteria for the types of rationality: 1) distinctive features of a systemic organization of investigated objects and different types of world view; 2) certain distinctions of means and operations of activity, represented in ideals and norms of a science; 3) peculiar values and purposes of the subject and their reflectional assessment, expressed in specificity of philosophical foundations of the scientific world view (Styopin, 2003). To study objects represented in elementary systems the means of classical science will suffice; non-classical science should operate with self-regulating systems, and postnonclassical science may cope with complex self-developing systems (Styopin, 2003).

In our opinion, the syndrome approach applied in theoretical and practical fields of clinical psychology is highly efficient at the current state of the evolution of science due to the potential of the new methodological context of the postnonclassical model of rationality and completeness of cultural-historical theory proposed by L.S. Vygotsky concerning the person and its mind as a self-developing open systems.

### 4. Research methods and design

The main method of this study was psychological syndrome analysis (Vygotsky-Luria school). Techniques for the qualitative and statistical data analysis of clinical-and-psychological follow-up study (conducted for 15 years) were used.

The research involved a methodological complex comprising various methods of psychological and medical diagnostics, and statistical data processing.

For *psychological study* a set of various methods was compiled. It included the following techniques: structured clinical-psychological interviewing; the method of psychological testing; Minnesota

<sup>1</sup> In our study the notion 'factor' is employed in two meanings. First, we use it in the context of methodology of Vygotsky-Luria syndrome analysis: factor as an underlying cause of a defect (a syndrome generating radical) (Luria, 1973). Further in this work we speak of a 'psychological factor' retaining this particular meaning. Second, we may regard 'factor' as a certain statistical construct that comes as a result of the mathematical procedure of factor analysis. We further refer to it as a 'statistical factor'.

Multiphasic Personality Inventory (MMPI), the Sixteen Personality Factor Questionnaire (16 PF), the Schmieschek questionnaires (Schmieschek, 1970), the Ways of Coping Questionnaire (WCQ) (Folkman & Lazarus, 1988), and the Plutchik-Kellerman-Conte Quality of Life Index questionnaire; Projective techniques: the Thematic Apperception Test, and the Sentence Completion Test (Sachs & Levy, 1950); and the method of psychological experiment.

Experimental stress simulation was processed by studying aspiration level. A situation was set up that induced a state of mental tension. The blood pressure of the participants and their cardiac rates were checked before and after the experiment, as well as values on the Spielberger anxiety scale. The study of emotional experiences employed our modified version of Rosenzweig's method for studying reactions to frustration; this version includes studying the subjective semantics of emotional experience (Zinchenko & Pervichko, 2012 (b)).

*The medical part of the study* involved a complex of diagnostic procedures aimed at establishing a diagnosis for each patient (all patients had an ultrasonic cardiogram) and at establishing the degree of intensity of clinical symptoms and signs. An assessment of psychopathological status was conducted using data from a psychiatric examination, in accordance with ICD-10 procedure-coding criteria.

*Statistical processing of the data* was conducted by the method of factor analysis of variables (the principal components method based on the interpretability of the discovered factor structure with consequent oblique rotation of the factor basis and rotating factors' rating, according to Kaiser's criterion).

This research was conducted in 1993-2011 and consisted of 3 stages:

- 1) The study involved 290 MVP patients and 73 healthy subjects.
- 2) During 15 years 31 MVP patients took Magnerot within periodical treatment. 32 MVP patients attended systemic integrative psychotherapy on request (individual assessments).
- 3) In 2008-2011 the control diagnostics was conducted for 132 patients who had been included in research groups in 1993-1996.

## 5. Results

Statistical processing and qualitative analysis of the whole set of clinical and psychological data were undertaken, and a hypothesis about the formation of a psychosomatic syndrome in MVP patients was tested.

The statistical factor analysis (which included 120 psychological and clinical characteristics selected according to the results of the qualitative analysis of the data collected in all stages) featured four factors that accounted for 52.47% of dispersion and related all analyzed characteristics to each other:

- 1) the statistical factor of clinical-psychological interplay (the only one among other established factors that showed maximum loading, covering both psychological characteristics of the MVP patients and indicators revealing the profile of clinical symptoms);
- 2) the statistical factor describing the characteristics of their emotional experience in emotiogenic situations;
- 4) the statistical factor displaying their ways of coping in traumatizing situations;
- 5) the statistical factor of emotional disorganization of behavior / emotional control.

Qualitative analysis of this statistical factor structure as well as analysis and interpretation of the whole set of the results of the clinical-and-psychological study lead to the conclusion that MVP patients possess a steady, meaningfully interpreted complex of clinical and psychological symptoms and syndromes that may be defined as a *psychosomatic syndrome*.

This syndrome comprises the following clinical symptoms and syndromes: subjective manifestations of cardiac arrhythmias, panic attacks in anamnesis, the syndrome of neurogenic hyperventilation, some degree of intensity of sympathetic and parasympathetic nervous system disorders, some degree of intensity of clinical disorders, severity of pain syndrome, and indicators of serum cortisol level. The syndrome structure is statistically formed by the following psychological symptoms: domination of the motive of failure avoidance, unsatisfied self-approval need, a complex of indicators of overt emotional tension in stress situations, insufficient or ex-

cessive control over motivations and emotions, characteristics of the emotional experience in stress situations (domination of the emotional categories “fear” and “anger,” which in most cases reveal no outward expression), suboptimal means of resolution of emotiogenic situations.

Results of the qualitative analysis of the data lead us to assert that *features of the motivation sphere of MVP patients appear as a psychological syndrome generator factor: these are domination of the motive of failure avoidance and unsatisfied self-approval need*. This conclusion was drawn on the basis of Luria’s principles for psychological factors (causes) selection, which determine the logic and structure of a neuropsychological syndrome, and on the interpretation of the results of statistical factor analysis (the complex of characteristic psychological features, which reflect features of the need-motivation sphere, was represented in the structure of the first three statistical factors with high factor loadings).

The persistent combination of the described features of the need-motivation sphere, with insufficient control over motivations and emotions and suboptimal ways of resolving emotiogenic situations, and certain peculiarities of the emotional experience of MVP patients in stress situations (all these characteristics are represented by high factor loadings in the resulting statistical factor structure) suggest that *the structure of this psychosomatic syndrome features one more psychological factor: dysfunction of emotion regulation*. Furthermore, this psychological factor, being bipolar, is represented in two extremes: on the one hand, excessive emotional repression, and, on the other, insufficient emotional control. We cannot exclude the presence of one more factor, the psychophysiological one, in the structure of the syndrome. This suggestion seems to be apt because the psychovegetative syndromes and signs are highly represented in the resulting statistical factor structure.

The results achieved (the construction of a psychosomatic syndrome) lead us to suggest the following: if the described structure does, in fact, form a psychosomatic syndrome, and if the symptoms of it are causally related, the structure should be relatively stable in time, it should be likely to replay, and it should reveal prognostic perspectives.

To verify the hypothesis, 15 years later a longitudinal observation and clinical and psychological reexamination of the MVP patients was conducted. Some patients underwent on-request psychotherapy during the period (32 persons); 60 patients received, by prescription, courses of pharmacological treatment (Magnerot).

Reexamination of the patients demonstrated that the psychosomatic syndrome in question has a stable structure, despite positive or negative dynamics in the patient’s state. This feature sets the prognosticating perspectives. The patients assigned to the “risk group” for plausible symptomatology complications in the clinical and psychological signs described above, as well as the whole complex of clinical and psychological features, confirmed our expectations of the “hardening” of clinical MVP manifestations under conditions of emotional pressure when medication and psychological aid were not provided. Meanwhile, psychologically “safe” patients displayed generally positive dynamics and a reduction of MVP signs in a number of cases.

## 6. Conclusions and discussion

The psychosomatic syndrome of MVP patients was described in accordance with the following models: the general scientific principle of systematization, the principles of the post-nonclassical scientific paradigm, and the principles of psychological syndrome analysis (Vygotsky-Luria school).

The outcomes suggest that the syndrome is system-defined and has a multilevel structure. That is, the structure of the psychosomatic syndrome is determined by three factors, different from the neuropsychological syndrome, which is typically one-factorial.

These factors are as follows: a motivational factor (characterized by the domination of the failure-avoidance motive and the unsatisfied need for self-approval); a disorder of emotion regulation factor; and a psychophysiological factor.

We suggest that a psychosomatic syndrome analysis can be used for diagnostic and even prognostic tasks both in clinical psychology and medicine.

The results of our empirical study based on postnonclassical philosophy framework and methods of psychological syndrome analysis obviously expand the scientific background on the

nature of a particular disease (MVP) as well as set larger questions to investigate that will broaden our view on the psychological mechanisms of psychosomatic syndrome genesis.

We argue that the applying modern philosophical concepts which allow distinguishing between types of scientific rationality (classical, nonclassical and postnonclassical) might be used for psychological field analysis in its historical evolution establishment and further development. Moreover, all this brings an opportunity to define theoretical and methodological principles of the clinical psychology functioning and development.

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## DIAGNOSTIC ASSESSMENT, TREATMENT, AND TREATMENT OUTCOME EVALUATION OF CHRONIC PAIN/FIBROMYALGIA SYNDROME: CASE STUDY

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### Abstract

**Introduction:** Clinically it has been known that individuals with Chronic Pain Syndrome (CPS) do not respond well to medical model interventions alone. Biopsychosocial rehabilitation model of pain management has been emerging in the last decade. Most biopsychosocial pain management programs, however, have not made objective assessment and treatment outcome measures as parts of the practice yet. In 2001 author, with an interdisciplinary team of specialists, designed a biopsychosocial pain management program called “Team Power”. Evidence based assessment, individualized treatment and treatment outcome measures were included as the fundamentals of this program. **Design and Objectives:** This is an archival clinical case study with psychometric base line, interdisciplinary biopsychosocial treatment program and outcome measures. Primary goals of this case study were to examine the process of assessment, treatment, and treatment outcome evaluation as a continuum of biopsychosocial pain management model. The usefulness and importance of including objective assessment measures in differential diagnosis, evidence-based treatment planning and treatment outcome evaluation are, also, demonstrated. **Method:** This case study is about one of the patients who, after failed traditional medical model treatments, was referred to “Team Power” for evaluation, treatment and management of chronic pain, stress, depression, anger and insomnia. Millon Behavioral Medicine Diagnostic (MBMD), Pain Patient Profile (P-3) and Pain Disability Index (PDI) were utilized for initial screening and outcome evaluation. Minnesota Multiphasic Personality Inventory (MMPI-2) and Millon Clinical Multiaxial Inventory (MCMI-III) were used for further differential diagnosis to rule out comorbidity and malingering. Psychometric base line and outcome measures were compared both clinically and statistically with the use of “t” tests of significance between the two Means for each measure, MBMD, P-3 and PDI. Patient completed an intensive interdisciplinary treatment program at Team Power. The program was 8 weeks long four days a week, four hours a day with weekly staffing for treatment process and progress reviews. Behavioral medicine, physical therapy, physiatry and behavioral nutrition/weight management were the primary interdisciplinary treatment components. Behavioral medicine components included individual and group sessions, primarily, with cognitive behavioral and psychophysiological-biofeedback modalities. Physical therapy also included individualized and group exercises, finishing each day with pool-therapy. Psycho-educational components were scheduled at lunch hour in conjunction with behavioral nutrition and weight management classes. **Findings:** Objective outcome measures were significant for all three outcome measures, suggesting treatment effectiveness and the usefulness of objective measures. Assessment, treatment and programmatic implications and recommendations are discussed.

**Keywords:** *Biopsychosocial assessment, Treatment, Outcome evaluation, Chronic pain/fibromyalgia syndrome.*

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### 1. Introduction

Diagnosis and treatment of different types of pain are some of the most prevalent and very costly medical problems in the United States today. It has been largely accepted, at least in theory, that this challenging and complicated Chronic Pain Syndrome (CPS) cannot be often treated and managed effectively by reliance on medical model alone. Recently several studies have supported this notion that most patients with CPS do not respond well to the traditional medical model oriented treatment interventions. Recognizing that chronic pain syndrome is a multifaceted-multifactorial biopsychosocial phenomenon, in modern times, dates back to 1970's and 80's (Turk et al., 2002; Waddell, 1987).



Recent studies have widened their focus on different factors involved in formation of CPS, including neurophysiological and psychosocial aspects of it. Some studies have looked into strong association of endorphins such as serotonin, and hormones such as substance *P* and cortisol levels with chronic pain and fibromyalgia (Nijs et al, 2009). Others have found patients with chronic pain and fibromyalgia syndrome having one or more comorbid conditions such as chronic fatigue, irritable bowel movement, migraine headaches, insomnia, anxiety, fear, avoidance, and depression. Researchers, recently, have also looked into the influence of comorbid mental and or personality disorders, history of early traumas and need for more comprehensive biopsychosocial assessment and treatment of CPS (Bennett, 2005; Waddell, 1987; Shaw et al., 2001, Argun et al., 2008, 2013).

Very few preliminary research recently have been done with the use of objective measurements, such as MMPI-2 and MCMI-III, suggesting significant number of patients with CPS, showing comorbidity of mental and personality disorders and/or history of early traumas - PTSD (Gatchel, 2004; Argun et al., 2008, 2013). In practice however, these issues are not detected in the evaluation and treatment planning process objectively, often neglected in the treatment process, leading up to chronicity and permanent disabilities.

In 2001 an inter-disciplinary semi-day treatment program, “Team Power”, was designed for evaluation, evidenced based diagnosis and treatment of these patients (Argun, 2009). Patients referred to this program had already been diagnosed medically with CPS. They had been treated with and “failed” all conservative/traditional medical treatments such as pain anti-inflammatory muscle relaxant; insomnia, anxiety and depression medications; physical therapy, epidural injections and often orthopedic surgeries.

## 2. Objectives

Mrs. “A” was one of the patients who were admitted to “Team Power”. She completed the 8 weeks long program successfully. This case study will try to walk through the continuum of assessment- interdisciplinary treatment, treatment outcome evaluation for Mrs. “A”. The results of the objective measures for her base line and outcome evaluation will be presented with conclusions and recommendations.

It was hypothesized that with the use of the objective measures, identification of evidence based diagnoses (DV’s) and providing evidence-based individualized interdisciplinary and interactive treatment interventions (Iv.), Mrs. “A” Will gain significant reductions in her CPS symptoms and increased psychosocial, recreational and ADL activities. Patient was expected to reach Maximum Medical Improvements (MMI) and functional restoration, enabling her to return back to her previous occupation or some sort of retraining and employment.

## 3. Method

### 3.1. Subject

Patient was a 45-year-old married Caucasian American female, picked from an archival outcome evaluation sample of 275 patients (Argun et al., 2008, Argun, 2013). Initially patient’s pain was precipitated by an industrial accident three years prior to this admission. Patient had been working for about four years for a car dealership. Her industrial accident was a result of tripping without falling completely, yet, suffering severe pain, initially, in her posterior neck, occipital, interscapular and bilateral upper extremity areas including the dorsal forearms and dorsum of both hands with tingling and numbness in both upper and lower extremities. Patient’s pain, however, was gradually generalized to 14 out of 18 tendered point areas, including her low back and bilateral legs.

By the time patient was admitted to “Team Power”, her condition had progressed from an acute localized musculoskeletal pain to chronic widespread pain and fibromyalgia with secondary symptoms of depression, anxiety, irritability of mood, temper tantrums and insomnia. Patient’s pain management doctor had concluded that she had developed fibromyalgia syndrome with dependency on her pain management medications, especially *Norco* and *Xanax*. Conservative treatment history also had included a series of *Decadron* injections, along with

non-steroidal anti-inflammatory medications orally and an impeachment injection in the right shoulder. Patient had been placed on temporary total disability (TTD) occupationally and industrially.

### **3.2. Procedures**

In addition to clinical interview, mental status examination, medical records review, and psychophysiological-biofeedback screening, the initial psychological screening of the patient also included MBMD, P-3, and PDI (with two additional items) as the objective baseline measures. These three instruments were also used for treatment outcome measures, at the completion of the eight weeks program. For further differential diagnostic work up, the MMPI-2 and MCMI-III were administered since the initial screening was positive for widespread symptoms secondary to pain. MMPI-2 was also helpful in ruling out exaggeration/ malingering.

Patient's treatment program was designed for eight weeks, with 4 days a week, four hours a day intensity. It consisted of individualized as well as group treatment activities. Patient was gradually empowered to take active leadership role in her treatment process and progress evaluations and revisions. The Team met once a week for progress review as well as medication management.

Psychological components of patient's treatment program included cognitive behavioral, psychophysiological-biofeedback and psychoeducational approaches. Other treatments included physical therapy at individual and group levels, medication management, behavioral nutrition and weight management. At the end of the eight weeks, patient was re-administered the outcome tests along with exit interview by the team for discharge readiness, aftercare planning.

### **3.3. Instruments**

The Millon Behavioral Medical Diagnostic (MBMD) (Millon et al., 2001) is a base rate based inventory of 165 "True-False" items designed to provide important clinical psychological information to the treating doctors to assist them to treat the whole person, not just an isolated medical condition or symptom. MBMD was standardized on patients with physical illnesses. The test is structured for adult patients, ages 18-85 with at least 8th grade level education, who are undergoing medical care or surgical evaluations.

Pain Patient Profile (P-3) (Tollison et al., 1995) is a 44 item multiple-choice self-report instrument constructed to assess patients who may be experiencing emotional distress secondary to pain. Instrument has three clinical scales of Somatization, Anxiety and Depression with a Validity Index to assess the probability of random responding, exaggeration or comprehension difficulties. P-3 is standardized on both pain patients and samples from the community. P-3 can be administered in 15-20 minutes to 17 – 76 old patients who have at least 8th-grade level comprehension and reading abilities.

Minnesota Multiphasic Personality Inventory (MMPI-2) is well known and has probably the best reputation for differential diagnosis and assessment of malingering. It consists of 567 multiple-choice, true- false items. MMPI-2 has been used clinically and forensically for multiple purposes including pain assessment (Hathaway et al., 1989, Turk et al., 1992).

Millon Clinical Multiaxial Inventory (MCMI-III), is a 175 item multiple choice, true-false clinical and personality test. It is also a base rate based instrument, constructed similar but prior to the MBMD with a special purpose of differentiating clinical syndromes from personality disorders or traits (Millon et al., 1997). In this case study it was included in the battery for the purpose of ruling out premorbid personality traits/ disorders as well as chronicity.

## **4. Findings**

### **4.1. Initial assessment findings**

Patient's initial clinical profile on MBMD (Mean=102.10), P-3(Mean=55.67) and PDI (Mean=1) was positive for widespread symptoms of somatization, anxiety, depression on P-3 and anxiety, pain sensitivity, preoccupation with functional deficits, medication abuse and adjustment difficulties on MBMD. MMPI-2 and MCMI-III were administered for further

differential diagnosis. Patient's MMPI-2 was positive for scales 28471"6'39+ with F - K=-1, suggesting co-morbidity of mental and possible personality disorders.

Patient's MCMI-III was positive for both clinical and personality disorders. Scales measuring clinical syndromes respectively included major depression, dysthymia and anxiety disorder. Her profile was also elevated on scales measuring personality patterns/traits such as masochistic, negativistic dependent, depressive and avoidant traits. Scale measuring borderline personality disorder was, also, severely elevated.

#### **4.2. Diagnosis**

Patient's evidence based treating diagnoses included: Pain disorder with mixed emotions of anxiety and depression; sleep disorder-primary insomnia; psychosocial and personality factors affecting medical condition; schizoaffective disorder bipolar type; and borderline personality disorder with negativistic, dependent, depressive, and avoidant features.

Global assessment of patient's functioning at admission was estimated at 45/100 with severe mood swings, impulsivity, impairments in social and occupational functioning, episodes of intermittent explosive behaviors and verbal assaults.

#### **4.3. Treatment Plan**

Patient's psychological treatment program included both group psychotherapy as well as psychoeducational groups on psychophysiologic understanding and management of pain and neuromuscular tensions. More intensified focus was given to her individual psychotherapy sessions, twice a week with cognitive behavioral and psychophysiological pain/stress and insomnia management, rebuilding family support system, and re-stabilization of her effect on a supportive- expressive continuum. Medication management and gradually weaning the patient off of some of the narcotic medication such as *Norco* and *Xanax* was, also, a part of psychological/psychiatric interventions. A minor mood stabilizer with an SSRI was instead added to her medication regimen.

#### **4.4. Treatment Outcome Evaluation Results**

On P-3 patient had improved significantly bringing all her scores under the Mean for pain patient sample. Somatization scale had come down from a T- score of 58 down to 44; Anxiety from a T-score of 51 to 43; and Depression from a T-score of 58 to 42 with The Mean of 43. A "t" test of the Means was significant @p<.01.

On MBMD, all clinical scales were brought down below the cut off level of significance- score of 75- with the Mean score of 57.03. A "t" test of the Means was significant @p<.005.

On the PDI patient also showed significant progress and improvements in assessment of her global functions. The PDI had jumped from the baseline Mean of 1.0 to the outcome Mean of 8.11 on a 10 point scale. A "t" of the Means was significant at P <.005.

### **5. Discussion**

The turning points in the therapeutic process were several, the most significant of all were as follow: a) Interdisciplinary interactive treatment approach; b) Evidence-based treatment planning and delivery with individualized intensity and modalities; c) Psychophysiological-biofeedback treatment and education with respiratory and temperature modalities, playing a significant role in mind body connection and patient taking control of her body and bodily symptoms; d) Therapeutic assessment feedback, uncovering early childhood and adolescence trauma of sexual, emotional and physical nature, shifting the patient's focus from her bodily symptoms and pain to the process of dealing with her unfinished emotional wounds. One of the patient's interesting insights throughout the therapeutic process was gaining awareness to the connection between her pain regions/ tender points and neuromuscular regions that were also involved in the early childhood traumas.

## 6. Conclusions

Interactive, interdisciplinary assessment, evidence-based and objective treatment planning and treatment interventions produced significant progress, recovery and functional restoration for this patient. Based upon the progress report from the team, her primary treating physician made the patient's medical status as permanent and stationary (P&S). Patient was returned back to work with minor limitations. Aftercare/ future medical included individual psychotherapy for transitional issues/ stress/ pain management, maintenance and relapse prevention on p.r.n. basis for six months.

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## **EMOTION REGULATION & ADAPTIVE LEARNING STRATEGIES IN PORTUGUESE ADOLESCENTS: A STUDY WITH THE *REGULATION EMOTION QUESTIONNAIRE-2***

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### **Abstract**

The ability to *regulate emotions* is an essential prerequisite for adaptive development and behavior; several improvements should be accomplished throughout adolescence in order to make face to developmental tasks (e.g., self-control at school, self-awareness and adaptive learning skills). Recent literature on emotion regulation has emphasized the need to create assessment tools for emotion regulation during adolescence; in Portugal, few instruments are available for young. We present preliminary data of translation and validation of the *Regulation Emotion Questionnaire-2* (REQ-2, Philips & Power, 2007) to Portuguese sample (241 adolescents, aged 12 to 15 years old, from public schools of Coimbra municipality). A second goal was to analyze the relations between the awareness of regulating emotions and the perception of academic self-efficacy and self-justification strategies of failure (assessed by the some of the *Patterns of Adaptive Learning Scales* – PALS, Midgley, Maehr, Hruda et al., 2000). Factor analysis replicates the internal structure of REQ-2 four factors (total 21 items), relating to functional emotion regulation strategies (internal/external) and dysfunctional (internal/external), explaining 48.7% of variance. Correlational studies suggest that higher scores in functional strategies are related to a greater awareness of academic self-efficacy. Girls reported more frequent use of functional emotion regulation strategies. A developmental approach of emotion regulation seems to be useful to guide adolescent's intervention programs; and psychometric qualities of REQ-2 suggest that it is an adequate instrument to assesses and elicit adolescents' awareness about their own processes of emotion regulation.

**Keywords:** *Emotion regulation, REQ-2, Adaptive learning scales, Adolescents.*

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### **1. Introduction**

The ability to regulate emotions (ER) is an important developmental task for maintaining the internal balance of the subject, allow adapted relationships, and promote mental health (Gross & Levenson, 1997). The study of emotion regulation was approached by the great classics of psychology such as William James (cf. adaptive value in terms of physiological and behavioral response), Freud (defenses), Lazarus (effect of stress and coping strategies), and Bowlby (emergency of emotions regulation in attachment relations); and Darwin may be considered as precursor scientific study of ER, through detailed documentation of different facial expressions, and their corresponding adaptive value (Gross, 1998, 2002, 2008; Soussignan & Schaal, 2007). Emotions can be seen as "tools" by which we evaluate the situations we face; the response depending on this evaluation, so, emotions are inherently regulatory. One of the stances most salient today in the study of emotion regulation (and its development) comes from Lazarus thesis: "(...) emotions can be interpreted as mechanisms of adaptation that help us identify what is detrimental or helpful to our well-being and general functioning" (in Bariola, Gullone & Hughes, 2011, p.199). A functionalist approach highlights, stressing the role of emotions in the guidance for action/purposes in the pursuit of life experiences daily (Campos, Frankel & Camras, 2004; Thompson, Winer & Goodvin, 2011).

In recent years there has also been an increase in the studies on regulation of emotions throughout development; Gullone and colleagues, refer to the need for further investigations in different developmental periods, as the middle childhood and adolescence (Bariola, Gullone & Hughes, 2011; Gullone, Hughes, King, & Tonge, 2010; Gullone & Taffe, 2011).

Considering the role that emotion regulation has on other psychological processes – e.g., regulation of attention, promoting problem solving, interpersonal involvement, well being – the integrative role of emotions regulation in the understanding of normative or atypical development is emphasized (in Cole et al., 2004). Campos, Thompson, or Tamir, highlight the instrumental value of emotions indicating that its regulation does not necessarily imply a willingness to alter a state/subjective feeling, but, also, to attain any prioritized goal (Campos et al., 2004; Tamir, 2011, Thompson, et al., 2011). Power and collaborators also emphasize the need to assess strategies for regulating emotions in situations of day-to-day, and not only, or necessarily, in situations that activate one particular stressor (Phillips & Power, 2007).

Bariola and colleagues (2011) suggest that it's necessary to invest in studies of new procedures to assess emotions regulation, creating instruments that operationalize strategies (theoretically supported) and evaluate different periods of development. It is in this context that the present work – the translation and validation of the *Emotion Regulation Questionnaire-2* (Phillips & Power, 2007), for Portuguese adolescents – was done. Simultaneously, and basing ourselves on the thesis of instrumental value of affect regulation, and the value that homework has for adolescents, we evaluate the relationship between emotion regulation strategies (operationalized in REQ-2) and the use of adaptive learning skills defined in PALS (Midgley, Maehr, Hruda, et al., 2000). The patterns of action, beliefs and values are built progressively throughout development. Several authors emphasize the intentionality associated with patterns, beliefs and values, to the extent that these guides to action (Silva, et al., 2004). The adaptive learning patterns can be distinguished by the type of orientation used (*mastery* goal orientation or *performance* goal orientation, each one may assume an *approach* or *avoid* an orientation (Midgley et al., 2000). These patterns influence academic performance by the (in) adequacy of the strategies used and, on the other hand, the literature suggests that strategies for emotions regulation influence academic performance by the effect they have on the adoption of different strategies for learning.

## 2. Objectives & design

The main objective of this work – a cross sectional study – was the translation and validation of the *Emotion Regulation Questionnaire-2* (Phillips & Power, 2007), for Portuguese adolescents. The second objective was to analyze the relationship between emotion regulation and patterns of adaptive learning – in this case, "Academic Efficacy" and "Academic self-handicapping strategies" (Midley et al., 2000; Paixão & Santos, 2007).

## 3. Methods

### 3.1. Participants /Measures

The sample – 240 students from public schools in central region of Portugal (130 girls - 53.9% and 110 boys - 45.6%) was selected by the probabilistic method for convenience. The average age is 13.7, (SD = 1.07), minimum age of 12 and maximum age of 15 years.

*The Regulation of Emotion Questionnaire-2* (Phillips and Power (2007) is a self-report measure that assesses the frequency with which adolescents (between 12 and 19 years) use *functional strategies* and *dysfunctional strategies* of emotion regulation, arising from internal form (intrapersonal) and external (interpersonal). Composed of 21 items rated on a Likert scale of 5 points; the higher the *functional internal* scores subscales (e.g. "I talk to someone about how I feel") and *functional external* (e.g., "I relativize the situation") will be, more *adaptive* or functional is the perception of emotion regulation, by the adolescent. The higher are the scores on dysfunctional internal subscale (e.g., "I hurt myself somehow") and dysfunctional external (e.g. "I discharge my feelings in others by insulting them - yelling, arguing"), higher rates of dysfunction emotional regulation is.

*Patterns of Adaptive Learning Scales* – we used two scales: "Academic Efficacy" (5 items - score between 5 and 25 points) and "Academic Self-Handicapping Strategies" (6 items - score between 6 and 30 points).

### 3.2. Results

We conducted a principal components analysis of the 21 items REQ 2, followed by Varimax rotation procedure adopted by Phillips and Power (2007). We extracted six factors explaining 58.8% of variance. However, only three in the factor five items reached saturation values, while in the factor only one item saturated six. We then performed a new factor analysis forced the four factors. The KMO value obtained was 0.74, indicating a satisfactory correlation between variables, confirmed by Bartlett's test with a significance level of  $p = .000$ . The variance explained by the four factors was 48.7%. The Pearson correlations among the factors that comprise the REQ-2 and the total scale suggest that all subscales assess the same construct, i.e., the emotions regulation.

The REQ-2 subscales have reasonable internal consistency, except for the subscale "Functional-internal". The subscale "External-functional" ( $\alpha = .72$ ), "Internal-dysfunctional" ( $\alpha = .66$ ) and "External-dysfunctional" ( $\alpha = .72$ ) revealed acceptable levels of homogeneity, while "Internal-functional subscale" ( $\alpha = .58$ ) has a Cronbach alpha a little less than desirable.

We can see the correlation between the strategies of emotion regulation, self-efficacy and academic strategies for self-justification of failure, in the following table:

*Correlations between REQ-2 and PALS*

	Self-Academic Efficacy	Academic Self-Handicapping Strategies"
External-functional	.184**	
Internal-dysfunctional		
External-dysfunctional	-.216**	.239**
Functional-internal	.340**	

\*\*  $p < 0.01$

"External-functional" and "Functional-internal" subscales correlated significantly and positively with academic self-efficacy. In general terms, the use of emotion regulation' strategies internal/external-functional are associated to a greater self-efficacy academic perception. The significant and negative correlation between "External-dysfunctional" emotion regulation, and academic self-efficacy, suggest that the adoption of dysfunctional external strategies is associated with a lower perception of academic self-efficacy. "External-dysfunctional" subscale correlates significantly and positively with self-justification strategies of failure; suggesting that the adoption of external-dysfunctional emotion regulation strategies leads to the use of self-handicapping strategies. Girls score significantly higher than boys in "Functional-external" emotion regulation.

	REQ-2			
	External- functional	Internal- dysfunctional	External- dysfunctional	Internal-functional
<b>Sex</b>				
Boys	19.00**	n.s.	n.s.	n.s.
Girls	20.72**	n.s.	n.s.	n.s.

Regression analyzes were perform in order to analyze the influence of "functional (internal and external)" emotion regulation strategies in the *perception of self-efficacy*, and the influence of "external-dysfunctional" strategies in *self-handicapping strategies*.

*Influence emotion regulation on academic self-efficacy*

	B	P	R <sup>2</sup>
External-functional	.18	.000***	.034
Internal-functional	.34	.000***	.115

\*\*\* $p < 0.001$

The relationship between variables is weak ( $R^2$  is reduced), only 3.4% of the variance of perceived academic self-efficacy is explained by *external-functional* ER; while 11.5% of the variance of perception of academic self-efficacy is explained by *internal-functional* strategies of emotion regulation.

*Influence of emotion regulation on self-handicapping strategies*

	B	P	R <sup>2</sup>
External-dysfunctional	.23	.000***	.057

\*\*\*p < 0.001

Only 5.7% of the variance of self-handicapping strategies is explained by external-dysfunctional ER strategies.

### 3.3. Conclusions

We present data from translation and validation of the *Emotion Regulation Questionnaire-2* for Portuguese adolescents; which shows, overall, internal consistency indices similar to Phillips and Power (2007) study. The Portuguese version of *Emotion Regulation Questionnaire-2* has adequate psychometric properties, suggesting that it is an adequate instrument to assess emotion self-regulation strategies. Relationship between emotion regulation strategies (operationalized in REQ-2) and the use of adaptive learning skills defined in PALS, suggest the role of emotion regulation on learning skills reported by adolescents. Negative significant correlations between external-dysfunctional emotion regulation strategies and self-academic efficacy, reported by adolescents, suggest interesting ways of intervention in schools; as, also positive correlations between external-dysfunctional emotion regulation strategies and self-handicapping reported strategies.

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## THE COGNITIVE ORIENTATION OF ADDICTIVE BEHAVIORS

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### Abstract

The study deals with applying to the issue of addictive behaviors the cognitive-motivational approach of the cognitive orientation theory. This theory assumes that the occurrence of a behavior is affected by cognitive contents in the form of beliefs of four types – about goals, about rules and norms, about oneself and about others and reality (general beliefs) – relating to contents relevant for the particular behavior. A cognitive orientation questionnaire was constructed by applying the standard method of interviewing pretest subjects. The questionnaire referred to theme, such as rejecting limitations, withdrawal from coping and blurred self-identity. The participants were 62 individuals with addictions and 62 control individuals. The scores of the questionnaire differentiated with high significance between the two groups. The findings shed light on the nature of psychological risk factors for addiction and thus contribute to the possibility of planning targeted interventions for prevention and treatment.

**Keywords:** *Cognitive orientation, Addiction, Risk factors.*

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### 1. Introduction

Addiction is defined by the DSM-IV as a maladaptive pattern of substance use leading to clinically significant impairment or distress, manifested in behaviors concerning work, family and social interactions (American Psychiatric Association, 2000). Addiction consists in recurrent exposure to some substance, whereby its absorption is experienced as pleasurable and its withdrawal as unpleasant. The major characteristics of addiction are increasing tolerance for the substance, continued compulsive use of the substance despite possible awareness of its negative consequences, and inability to stop the ingestion of the substance by means of a personal decision. This definition applies to various substances, including alcohol, tobacco and some psychoactive drugs. In recent years the concept of addiction has been expanded to include also behavioral dependency which may be manifested in regard to gambling, work, sex, the internet and exercise.

The major theories of addiction may be summarized in terms of the five following approaches. According to the medical approach, addiction is due to neurotransmitter imbalance in the brain and should be treated by eliminating drugs or using antagonist drugs. According to the social approach addiction is a learned behavior due to peer pressure and conformity so that its reduction may be attained by changing social norms, including legal means.. According to the psychodynamic approach, addiction is an inadequate coping strategy with underlying psychological problems that need to be treated for abolishing the addiction (Shafer, LaPlante, & Nelson, 2012).

It is evident that addiction has biological, social and psychological components. The purpose of the present paper is to describe the cognitive orientation (CO) approach to addiction that may enable an integration of the different approaches to addiction and shed light on the phenomenon from a new perspective.

#### 1.1. The Cognitive Orientation approach

The CO is a cognitive theory of motivation designed to enable understanding, predicting and changing behaviors and other outputs in domains, such as emotions, cognition, physiology and physical or mental health. The major theoretical assumption of the CO approach is that cognitive contents and processes play an active-dynamic role in regard to behaviors. Behavior is considered a function of a motivational disposition, which determines the directionality of behavior, and a performance program, which determines the manner in which the behavior is

carried out. Unlike other cognitive models of motivation (Ajzen, 1985; Becker, 1974) the CO theory does not assume that behavior is guided by logical decision-making, or is subject to conscious voluntary control. Instead, it focuses on the major role of meanings, showing how behavior proceeds from meanings and clustered orientative beliefs, which may not necessarily be rational or logical (Kreitler & Kreitler, 1976, 1982).

According to the CO theory, the processes intervening between input and output can be grouped into four stages, characterized by metaphorical questions and answers. The first stage is initiated by an external or internal input and is focused on the question “What is it?” which guides the processes enabling the identification of the input by a limited ‘initial meaning’ as either a signal for a defensive, adaptive or conditioned response, a molar action, an orienting response, or as irrelevant.

The second stage is devoted to further elaboration of the meaning of the input. It focuses on the question “What does it mean in general and what does it mean to or for me?” which results in an enriched generation of interpersonally-shared and personal meanings in terms of beliefs, designed to determine whether these beliefs require a behavioral action.

A positive answer initiates the third stage focused on the question “What will I do?” The answer is based on relevant beliefs of the four following types: a) Beliefs about goals, which refer to actions or states desired or undesired by the individual (e.g., ‘I want to be respected by others’); b) Beliefs about rules and norms, which refer to social, ethical, esthetic and other rules and standards (e.g., ‘One should be assertive’); c) Beliefs about oneself, which express information about the self, such as one’s trait, behaviors, habits, actions or feelings (e.g., ‘I often get angry’) and d) General beliefs, which express information about reality, others and the environment (e.g., ‘The world is a dangerous place’). The beliefs refer to deep underlying meanings of the involved inputs rather than their obvious and explicit surface meanings. The meaning elaborations are based on clarifying the extent to which the involved beliefs support or do not support the indicated action. If the majority of beliefs in at least three belief types support the action, a cluster of beliefs is formed (“CO cluster”), orienting toward a particular act. It generates a unified tendency which represents the motivational disposition orienting toward the performance of the action.

When a motivational disposition has been formed, the next stage is focused on the question “How will I do it?” The answer is in the form of a behavioral program, which is a hierarchically structured sequence of instructions specifying the strategy and tactics governing the performance of the act. There are four basic kinds of programs: a) Innately determined programs, e.g., controlling reflexes; b) Programs determined both innately and through learning, e.g., controlling instincts or language behavior; c) Programs acquired through learning, e.g., controlling culturally shaped behaviors and d) Programs constructed ad hoc, in line with relevant contextual requirements.

A large body of research demonstrates the predictive power of the CO theory in regard to a great variety of behavioral domains and types of participants. Predicting behavior by means of the CO theory enables mostly correct identification of 70%-90% of the participants manifesting the behavior of interest (Drechsler, Brunner, & Kreitler, 1987; Figer, Kreitler, Kreitler, & Inbar, 2002; Kreitler, Bachar, Cannetti, Berry, & Bonne, 2003; Kreitler & Kreitler, 1991; Kreitler, Shahar & Kreitler, 1976; Tipton & Riebsame, 1987). The success of the predictions is based on applying the standardized procedure based on the CO theory (Kreitler, 2004). It consists mainly of assessing the strength of the motivational disposition for the behavior by means of a CO questionnaire, which examines the degree to which the participant agrees to relevant beliefs orienting toward the behavior in question. The relevant beliefs are characterized in terms of form and contents. In form, they refer to the four types of beliefs, namely, beliefs about goals, rules and norms, the self, and general beliefs. In contents, they refer to the meanings underlying the behavior in question (called “themes”).

The themes of a particular CO questionnaire are identified by means of a standard interviewing procedure applied in regard to pretest subjects who manifest the behavior in question and to control subjects who do not manifest it. The procedure consists of interviewing the participants about the meanings of relevant key terms of the behavior followed by sequential (three times) questions about the personal-subjective meanings of the given responses (Kreitler

& Kreitler, 1990). Repeating the questions about the meanings reveals deeper-layer meanings. Those meanings that recur in at least 50% of the interviewees with the behavior of interest and in less than 10% of those without it are selected for the final questionnaire. The outcome of this procedure is that the beliefs in a CO questionnaire do not refer directly or indirectly to the behavior in question but only to the themes that represent the underlying meanings of this behavior. Validity of the CO questionnaire is confirmed if it enables the prediction of the behavior also in the second sample. The themes and belief types define together a prediction matrix, with the belief types as headings of the columns and the themes in the rows. Thus, a CO questionnaire usually consists of four parts presented together in random order. Each part represents one of the four belief types, and contains beliefs referring to different theme-contents. Participants are requested to check on a 4-point scale the degree to which each belief seems true (or correct) to them. The major variables provided by the CO questionnaire are scores for the four belief types and for each of the themes.

## **2. Objectives of the Study**

The purpose of the study was to construct a CO questionnaire of addictive behaviors and to test it in a sample of individuals with and without addictive behaviors. The hypothesis was that the CO questionnaire would provide a significant differentiation between the two groups in terms of the major CO variables.

## **3. Method**

### **3.1. Participants**

The pretest subjects who were interviewed for constructing the CO questionnaire were 15 individuals of both genders who reported they were addicted to drugs or alcohol. The control subjects in the pretest phase were 15 individuals of both genders who were not addicted to alcohol or drugs. The two pretest samples were similar in age (range 24-35) and years of education (at least 12 years).

The study sample included 124 individuals, 62 of whom were addicted to alcohol or drugs and 62 who were not addicted. The two groups included about half males and half females, in the age range of 25 to 40, who had over 12 years of education.

### **3.2. The CO Questionnaire**

The CO questionnaire was constructed on the basis of the interviews with the pretest subjects. The interviews yielded the following 9 themes which appeared in the interviews of at least 50% of the addicted and in less than 10% of the controls: (a) rejection of limitations concerning oneself (e.g., avoiding restrictions, rejecting self-control, striving for complete freedom); (b) rejection of the possibility of changes in oneself; (c) avoidance of external emotional expressions (e.g., of anger expressions); (d) unclarity in self-definition (e.g., unclarity in regard to gender identification, self-identification, or differentiation between the external and internal self); (e) identification with the other (e.g., extreme empathy, to the limit of blurring the boundaries of the self); (f) boredom (e.g., most things are uninteresting); (g) total absorption in one's activity (e.g., absorption to the point of forgetting one's physical needs); (h) responsibility only toward oneself (e.g., no sense of responsibility in regard to one's parents or society); (i) withdrawal from coping (e.g., sense of helplessness in regard to life).

The themes were phrased as beliefs of the four types. The questionnaire included four parts, with 15 beliefs in each of the belief types (e.g., I would like to be free of any obligations in life). Each belief had four response alternatives: very true, true, not true, not at all true. The Cronbach alpha reliability coefficients of the four belief types ranged from .85 to .96. The intercorrelations of the four belief types ranged from  $r = -.10$  to  $r = .33$ .

### **3.3. Procedure**

The subjects were recruited from three centers for the treatment of addiction and conformed to the criteria of addiction by the DSM. The controls were selected from individuals

in the same environment (students and workers) who resembled the group with addictions in age, gender distribution and level of education. The questionnaires were administered unanimously.

#### 4. Results

The mean scores of the four belief types differed significantly between the groups of the addicted and the controls (in all cases,  $p < .001$ ). The means (and SDs) of the addicted in goals, norms, self-beliefs and general beliefs were 60.5 (8.5), 66.9 (8.7), 38.2 (5.3), and 40.2 (5.6) respectively; and for the controls 55.3 (7.7), 58.3 (5.3), 32.2 (4.2), 33.6 (4.7), respectively.

A stepwise discriminant analysis with the four belief types as predictors yielded a correct identification of membership in one or the other group of 88.3%, which constitutes an improvement of 38.3% over the 50% correct identification on the basis of chance alone. The predictors with the highest contribution to the discriminant function were the beliefs about self and general beliefs, followed by beliefs about norms and beliefs about goals in the fourth rank.

The themes that proved to differentiate most significantly between the groups were rejection of limitations concerning oneself, rejection of the possibility of changes in oneself and unclarity in self-definition.

#### 5. Discussion

The results show that the CO questionnaire proved to be a valid tool for differentiating between addicted and non-addicted subjects. This indicates that the questionnaire represents adequately the underlying motivationally-relevant themes for addiction. The themes provide insight into the psychological dynamics of addictive behaviors. These seem to be mainly rejection of limitations and obligations, which include denying responsibilities and duties toward others, and a blurred self-identity, which includes unclarity about one's gender, identity and even one's internal emotional world.

One important implications of the study is that there is a cluster of motivationally-relevant beliefs orienting toward addiction. This renders it possible to use the questionnaire in order to identify individuals or groups at risk for becoming addicted. The early identification may make it possible to apply preventive interventions.

Another implication is that the identified cluster of motivationally-relevant beliefs enables developing targeted psycho-social interventions for treating successfully addicted individuals, either as a prime therapeutic tool or as an adjunct to other treatments.

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## COMMUNICATION AND CONTROL: AN INVESTIGATION OF PROSTHETIST AND AMPUTEE RELATIONSHIPS

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### Abstract

**Objectives:** Loss of limb through amputation presents a significant, life changing, circumstance to individuals. In addition to psychological and physical adjustment, individuals also become patients within a health care system. The role played by the prosthetist as the gate keeper to the health care system and in the facilitator of rehabilitation is essential to subsequent positive adjustment of the individual. Communication within this patient/practitioner dyad has an important role to play in order to achieve a positive outcome for both parties. **Design:** 15 individuals post amputation and 13 prosthetists were interviewed on their experience of limb loss and prosthesis use. Participants were recruited through rehabilitation centres and amputee charities throughout the UK. Interviews took place between 2011-2012. **Method:** Semi structured interviews were conducted with all participants with an interview schedule loosely based on impact of limb loss on daily life, experience of prosthesis use and personal meaning of limb loss. Interviews were analysed using Interpretative Phenomenological Analysis (IPA) to gain a subjective understanding of their experience. Key themes and sub themes were developed from each group of interviews. Prosthetist and individual experiences were then compared to examine the similarities and differences in these groups. **Findings:** Four key themes were identified from the data: Personal Identity, Social Identity, Experience of Technology and Experience of Control. The current paper focuses on the subtheme of Communication and Control. Communication between individual and prosthetist both pre and post amputation was found to impact on expectations and in turn management of these expectations. In addition, the importance of communication in the adjustment to amputation and subsequent acceptance of the prosthetic limb is discussed. Negative impact of failure to communicate within this partnership is also highlighted from both perspectives. **Conclusions:** Communication is essential to any practitioner/patient relationship. This paper discusses from the novel view point of both parties the impact of communication on adjustment to amputation. Each party expressed a specific expectation of their own role and the role of their opposite partner. These expectations appear to have a great effect on the level of satisfaction each finds in the clinical interactions and relationship itself. The multiple roles played by the practitioner within this relationship are not always appropriate to clinical training but may have an impact on rehabilitative outcome. The prosthetist and the healthcare system have the potential to greatly influence the subsequent rehabilitation of individuals. A greater understanding of this influence and of the lived experience of these participants will shed light on this area and allow suggestions for clinical practice to be made.

**Keywords:** *Patient/Practitioner Relationship, Communication, Amputation, Interpretative Phenomenological Analysis, Prosthetist.*

## PROJECT FOR WORK MANAGEMENT AND SOCIAL INCLUSION OF MENTAL HEALTH USERS IN BRAZIL

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### Abstract

As a pioneer proposal for social inclusion through work, the Work Management Project (WMP) is presented as a model of a new caregiving practice in the field of mental health designed to establish the conditions for access and permanence of individuals with mental disorders in the formal job market. Underway in the city of Rio de Janeiro/RJ, Brazil since 2008, this project today has 50 users of different mental health services and devices in a number of locations in the Greater Rio area, working at PREZUNIC- CENCOSUD S.A., with all their labor rights guaranteed. Based on specific guidelines, the WMP supports the real caregiving demands of this population to enable the users to exercise their citizenship rights through formal work. It is through training and monitoring conducted at the workplace itself, in the signing of job contracts using the "hours worked" model and close contact with the mental health services to which these new workers belong that the WMP establishes the conditions that allow it to function. Results obtained since the project was established in practice, and based on its participation in the larger project of the IMNS/RJ (2007/2009) until being configured for a private company, have led the WMP to win not only a state prize awarded by the Brazilian Human Resources Association (ABRH/RJ) in its 2010 version, but also was the inspiration for the State Labor Public Prosecutors Office (MPT/RJ, 2012) to adopt inclusion of individuals with mental disorders in Law 8213, the so-called Quotas Law, pursuant to the United Nations Convention, 2006. This means that for the first time in the history of Brazil, a Brazilian state, through the MPT, has determined there shall be legal protection for this population in the formal job market. With these results, based on the ideas contained in the Brazilian Psychiatric Reform program, the WMP now intends to continue to promote expansion of both socially shareable spaces and increase in the democratic rights of a portion of the Brazilian population that historically has been excluded from the social contract.

**Keywords:** *Work Management, Citizenship, Mental disorder, Mental health.*

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### 1. Introduction

The Work Management Program (WMP) was established to recover the rights of citizenship for people historically marginalized from human development plans, as well as to offer companies opportunities to invest in new knowledge in personnel administration, leading to new social responsibility actions. At the same time, the WMP also opens up a new field of activity for psychology professionals, along with investments in the academic formation of psychologists.

Considering that in the State of Estado do Rio de Janeiro, the 1<sup>st</sup> Region Public Labor Prosecutor's Office (MPT/RJ) on May 12, 2012 incorporated "psychosocial deficiencies" (based on United Nations Convention 2006/08) — that is to say, persons with "mental disorders" — in Law 8213/91, this population now is conclusively included in the legal obligations of companies regarding the requirement to fill mandatory work positions.

Toward this end, nowadays by assuming a specific project aimed at people with mental disorders and within a self-sustainable perspective a company in the State of Rio de Janeiro not

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only will be in compliance with the law but also will contribute to building a society that is more tolerant in terms of the diversity and differences.

Inspired in the U.S. Support Employment model, the WMP was first implemented in Brazil in the city Nova Friburgo, RJ (2005). In 2007, it obtained public institutional support through participation in a larger project of the Nise da Silveira Municipal Institute (IMNS/RJ). In 2008/9, the WMP took on the format of a consulting company and began to offer services to the PREZUNIC COMERCIAL LTDA supermarket chain.

This paper presents the qualitative and quantitative results achieved since implementation of the pilot project of the company on behalf of the PREZUNIC – CENCOSUD S.A. (2013).

## 2. Paradigms of the Work Management Project

### 2.1 As “*Invention*”

It is through understanding of the reformist Italian proposal of “invention” (BASAGLIA *apud* AMARANTE, 1994) and the influence of “American pragmatism” that the WMP proposes its actions. Franco Basaglia, an Italian physician, father of the Italian Psychiatric Reform (1961), proposed a radical rupture with some of the paradigms that had oriented the understanding and treatment of madness. Thereafter, a series of possibilities emerged that even extended through to the most current of proposals for social inclusion for this population. For its part, the government of the United States, more than 25 years ago, has been investing in effective programs for inclusion and preparation of these persons for the job market. Based on this Support Employment proposal, the WMP intends to bring its version, the Brazilian “invention,” to support a job strategy for mental health users in Brazil.

Among its strategies, the WMP will implement training of a new field agent, the work manager, whose job is to monitor and train a worker in his or her own place of work. Moreover, and listening to the discourse of the “crazy people” themselves regarding their legitimate desire to work with a signed employment contract, the WMP will seek out the conditions that can make this occur. The “invention,” together with pragmatism, in this case, comes about through the affirmative action in the building of a practice that until now has not been possible from a number of different points of view.

Even today in Brazil, with the exception being the State of Rio de Janeiro, there are no laws protecting the work of this specific population. Furthermore, we continue to have a very rigid labor organization imposed by the capitalist mode of production, which has led to the establishing the conditions of exclusion for vulnerable populations, which are not adapted to the standard model of formal workers.

Therefore, the issues that involve the conditions of access and permanence of people with mental disorders in the formal job market were the first challenges the WMP faced.

## 3. Methods

### 3.1. Access

This paper could begin by affirming that, in Brazil, if there is any possibility of the acceptance of the WMP by a company, it resides in what can be offered as a counterpoint to the employer. That is, the acceptance of “crazy people” in the workforce includes “risks” that the company only will accept through the force of law, or the result of a generous commitment to social responsibility. Certainly, the most effective predisposition to achieve this result is through compliance with the law.

In the case of our companies, the counterpart to the employer is in the possibility of being in compliance with Law 8.213/91, or “Law of Quotas”, that determines that any company with more than 100 employees must make available 2% to 5% of its job positions to people with deficiencies; but this does not include “mental disorders.” So it was through association of people diagnosed with deficiencies together with mental disturbances that the WMP proposed the hiring of the first six individuals (IMNS/RJ), that is, people with both diagnoses, within the

quota plan of a company. This was, thus, the first "protected" possibility of access to formal work for mental health users: those who had a situation of associated deficiency.

The second possibility for access, which would include mental health users without a deficiency diagnosis, would be through a formal commitment of a company through the Public Labor Prosecutor's Office (MPT), by signing a Conduct Adjustment Agreement (TAC). Going this route, a company could commit itself to alternatives other than compliance with the Law of Quotas — for instance, investing in social projects. This stratagem is acceptable to the MPT as proof of commitment and compliance of the companies when they are not in conformance with the legal requirements.

The third, and most effective, possibility would be the inclusion of people with mental disorders in Law 8213/91. Currently, it is only in the State of Rio de Janeiro where mental health users are included in this law.

### **3.2. Permanence**

Regarding the permanence and structure of the proposal, the WMP believes it is absolutely necessary to coordinate action between the three instances:

- The hiring company: to make it possible to have job contracts in the "hours worked" format, besides recruiting psychology trainees as "work managers";
- Mental health services: to work in strict partnership with the WMP's coordinators, forwarding them issues regarding the "treatment";
- WMP: the coordination of all of these actions, as well as orienting and supervising the "work managers" in training and monitoring each user.

### **3.3. Company support**

Different than other proposals for entry into the formal job market, the WMP is notable for not only being dedicated to obtaining employment for people with mental disorders, but also to those who under no hypothesis could enter in the workforce without appropriate support. This refers to those who have "serious" disorders. This distinction is made taking into account that there are many mental health users who, although they can be inserted into the professional job market, lose their jobs because there is a lack of support to help them overcome their difficulties. For the more serious cases — those with a long history of disease — there is nothing in their profiles that demonstrates any of the characteristics that would identify them with the economically active population. Therefore, in this paper we emphasize the possibility of these persons to be contracted, frankly in opposition to ideological tutelage that identifies them as incapable or irrecoverable (BASAGLIA apud AMARANTE, 1994). Thus, with regard to the proposal to hire these people, the issue is centered on the determination of the adjustment of the interests between the employee and the employer. Similarly, it should be noted here that the wages received by these workers shall be proportional to the number of hours worked. This strategy seeks not only to guarantee the "non-charity" nature of the WMP, but also establish a standard of equality between all of the workers, since all receive the same amount per hour worked.

### **3.4. Supporting mental health devices**

The proposal of a close dialogue with the mental health services technicians and services to which the 'Work Management Project' users belong is an essential condition. The understanding of this practice, although necessarily tangential to the clinical issues, includes the logic of "caregiving," although disengaged from the therapeutic discourse, properly speaking. Here, the WMP wants to respect the work activity through the frank exercise of free will and rights, rather than as an extension of therapeutic projects. The benefits the users achieve through work are considered to be the same gains common to any worker. The clinical issues, or therapeutic planning for each user, will be duly discussed and sent to the mental health services they use.

### **3.5. Support of the work managers**

The work manager is conceived as a new field agent, whose function is to provide the necessary support to the users, both for carrying out the tasks (or for training purposes) in the

workplace location itself, as well as to monitor the evolution of each with regard to retaining their jobs.

The practical WMP stages, as of acceptance of the job position request for mental health users, are the following:

a) Interviews conducted singly with users interested in the job, to obtain their history. At this moment, whether as part of the evaluation of interests or because of clinical conditions, the first strategies are established regarding monitoring the user in his or her place of employment.

b) The search for jobs compatible with the interests and/or skills of each user.

c) Based upon the prior assessment of each one of the employees in the project, a work manager can do two of the following things: intensive work management (WMI), which implies monitoring and training the employee in his/her own place of work for, a maximum, of two hours a day, two times a week (for individuals with serious disorders); and non-intensive management (WM) which implies weekly monitoring of the employees to evaluate their evolution, performance and degree of satisfaction. Training in their own places of work is not required for these users.

Furthermore, the work manager shall monitor and be the mediator of issues related to the work environment (with colleagues, bosses, etc.) and eventual absences from work due to medical treatment and accompaniment issues.

#### 4. Discussion – Qualitative and Quantitative results

In order to demonstrate how this work has evolved, we are now presenting some of the results that have been obtained since August 2008, when the WMP first was implemented in Prezunic Comercial Ltda. (now Prezunic-Cencosud S.A.), through to today.

During the three years comprising 2008-2011, the WMP grew significantly, going from six (6) to 45 (forty-five) mental health user-employees working for the company. This evolution mainly came about through the signing of a Conduct Adjustment Agreement (TAC/2010) between Prezunic and the Public Labor Prosecutor's Office (MPT/RJ). Once the accord was signed, it became possible to include users without a diagnosis of associated disability. Now already in 2013 we have reached a total of 50 users working with all of their labor rights guaranteed.

It also should be noted that this growth cycle (pursuant to a prior agreement with the MPT/RJ), will always be limited to about 10% of the total number of persons to be contracted through the company's quota plan. The objective of this strategy is to achieve diversity regarding job protection for all persons considered under United Nations Convention 2006/2008 to be in socially disadvantaged circumstances.

Also important is the low job rotation ratio (*turnover* = 4.0/2012), indicating the positive performance of the monitoring operation set up by the WMP designed to help retain this type of manpower contracted by Prezunic.

Regarding the unequivocal recognition of this work, in the month of November 2010, Prezunic received the "Human Being Prize" (2010 edition) in the medium/large-company category of the Brazilian Human Resources Association (ABRH/RJ), awarded for its case study "Work Management Project: a strategy for social inclusion through work."

Regarding the promotion of public policies, in yet another groundbreaking initiative of the MPT/RJ, in April 2012 the decision was made to include "mental disorder" in law 8213/91. This was the most important Brazilian public initiative regarding the adjustment of protective measures on behalf of a population that has historically been excluded from the legal possibility of exercising its rights of citizenship through formal jobs. It propelled the State of Rio de Janeiro into the forefront of the defense of the rights of mental health users regarding the question of entry into the formal job market. And it is with great pride that the WMP was one of the benchmark references motivating the MPT/RJ.

## 5. Conclusion

Upon reviewing the history of madness in the West and the Psychiatric Reform guidelines in Brazil, one perceives that the clinical and political militancy against reconstructing the paradigms for understanding and assisting mental health users is still an arduous barrier for the professionals involved in this process. Taking into account the forced distancing that is imposed on these individuals in the sharing of the social contract, it remains up to us to continue to fight to represent their potential interests. It is thus that efforts to make it feasible for this population to responsibly enter the formal job market can bring about the possibility of reversing a crucial point for the acceptance and inclusion of madness within the social body, as a “difference” and not as “incapacity.” And that is the main goal and contribution of WMP.

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## INVESTIGATION OF PRIMARY SCHOOL STUDENTS' OPTIMISM LEVEL AND THEIR SCHOOL PERCEPTION

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### Abstract

In this study it is aimed to investigate Primary School Students' optimism and their perception of school with relation to the variables of students' gender, grade and the type of primary school (Type A and Type B). In addition, it is aimed to investigate the differences between their optimism level (high, medium and low) and school perception. This study is a descriptive analysis that involves the investigation of optimism level of primary school students' and their school perception. The study group consists of 610 students attending at seven different primary schools in central district of Ankara. To gather the data, "Optimism Scale" and "School Perception Scale" were used. The data obtained were analyzed using SPSS software. Firstly, t test was performed to the results obtained with the help of Optimism Scale, Perception of School Scale and Perception of School Scale's sub-scales in order to determine whether the quantitative differences in students' points means related to their gender and school type (A type, B type) were significant. Moreover, ANOVA test was performed to found out whether the quantitative differences in students' points mean related to their grade were significant. ANOVA test was performed to found out whether the quantitative differences in students' optimism level related to their Perception of School points were significant. In addition, LSD (post-hoc) test was used to find the source of the difference. According to the data obtained by Optimism Scale, Primary School students who attend the study are generally getting high points. In addition, there is a significant difference between the type of school (Type A and Type B), gender and optimism. However, the differences between the points of students and their grade are not significant. According to the data obtained by "School Perception Scale" primary school students who attend the study are generally get high points. Also there is a significant differences between the girls' and the boys' scores of school perception. According to the data, there is not a meaningful difference between degrees and school perception points. There is a significant difference between type of school and the school perception points. According to "feelings about school" sub-scale, there is a significant difference between girls and boys. There is a significant difference between "the perception about physical circumstance of school" sub-scale, "feelings about school" sub-scale, "the perception about courses" sub-scale and students' grade. There is a significant difference between "perception about physical circumstance of school" sub-scale, "feelings about school" subscale, "the perception about courses" sub-scale and the types of school. There is a significant difference between the primary students' level of optimism and the points of their School Perception Scale's sub-scales

**Keywords:** *Optimism, School psychology, Positive Psychology, School perception.*

### 1. Introduction

During World War II, scientists working in different fields of psychology focused on solutions of the problems individuals and the community encountered, researches focused on risks, problems and pathological conditions to hinder the adaptation process and the development of the individuals and treatment for such conditions (Keyes & Haidt, 2003).

Considering the fact that the positive aspects of the individual should also be studied, scientists who espouse the emerging positive psychology approach today, however, support the idea that it needs more and more studies about strengths of human character – such as individual's subjective well-being, satisfaction, satisfaction in the past, being hopeful for the future, optimism, happiness, love, perseverance, freedom, open-mindedness and social and biological factors to make it fit to live in (Rich, 2003; Seligman & Csikszentmihayli, 2000).

The optimism in the field of positive psychology draws attention of many researchers in the last two decades. Scheier et al. (1999) define optimism as the tendency to anticipate the best to happen. According to them, the attitudes of the individuals assume when they faced problems are related to their generalized expectations and optimism refers to these generalized positive expectations.

Seligman (1990) advocates that optimism means an acquired ability to think flexibly without having negative thoughts in case of failure. Optimists believe that difficulties they face will somehow end in a positive way; so they generally develop positive emotions and resume their happy mood. Therefore, optimism is a functional way to achieve goals, adapt to life conditions and recover from illness (Scheier & Carver, 2003).

According to Hart and Hittner (1995), having an optimistic point of view protects individuals from despair and depressions. This point of view has a significant effect on the optimists' response to life. Optimistic people attribute their failure to a changeable cause and believe they will be successful in their next trial.

In order to understand any behavior of individual, how individual perceive and construct the environment formed by that behavior must be known. Within this context, individuals construct perception and expectations pertaining to their families, themselves, other people around, the future, life and many different areas. How 'school', an institution to give direction to life where individuals spend a significant part of life, is perceived is important in this respect (Öğülmüş & Çok, 1996). School is an organization with its unique structure, aims and functions. It is an institution which plays a significant role in the socialization of children and young people, as well as the family. School has functions such as 'to simplify the complex structure of social life, to protect children and young people, and to minimize the imbalances observed in social life (Öğülmüş & Çok, 1996).

Students, because of their unique emotions, thoughts and expectations, perceive the school more differently than adults do. Owing to this difference, they may develop different responses, other than the expected responses. Students' knowledge about school, their judgments about teachers, other students and the program are not the same (Furlong, 1984). In this sense, in terms of contribution to education, it is important to present students' opinions about school.

Akey (2006) states that positive perceptions of teachers, families and friends increase the students' motivation for school. Anderson and Strander (2004) studies students' perceptions of school in four different perspectives: How do students perceive school activities? How do students perceive their roles in the school? How do students perceive social relationships with their teachers and friends?

Students who positively perceive the school and future can effectively deal with the problems they encounter in school. They perceive the conditions as changeable, and consider challenges they encounter as opportunities. These assessments indicate that they are optimistic individuals. Optimistic students are students who look at the world, nature, and school from a different and more positive way. Students' tendency to optimism differs owing to variables such as the culture individual live in, their age, coping strategies used, their socio-economic level and education. The depth and scope of social relationships of optimistic individuals makes their view of life more positive (McGinnis, 1990). Students with higher optimism, in this case, will perceive school more positively than other students, they will consider problems they face as 'solvable' and be more productive (McClain, 2000).

## **2. Design and Objectives**

This study is a descriptive and cross-sectional study patterned in correlational survey model. In this study it is aimed to investigate Primary School Students' optimism and their perception of school with relation to the variables of students' gender, grade and the type of primary school (Type A and Type B). In addition, it is aimed to investigate the differences between their optimism level (high, medium and low) and school perception.

### 3. Methods

The research group consists of 610 students attending at seven different primary school types (type A and type B) in central district of Ankara in the schooling year 2007-2008. Students are between 11 through 14 years old and educated in 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> degrees. Type of schools were determined according to the form prepared by Ministry of National Education includes the number of students, teachers and other staffs in schools, the number of classrooms, physical condition of buildings, the population of the place etc. After the results Ministry are classified the schools in two groups as type A (having high score) and type B (having low scores).

To gather the data, "Optimism Scale (OS)" and "School Perception Scale (SPS)" developed by the researchers were used. While developing OS for primary school students, Optimism Scale had been developed before by Balci and Yilmaz (2002) was used. After the validity and reliability analysis of 160 students was conducted, it was determined that the scale was one dimensional, 4-point Likert-type scale consisting of 18 items. The Cronbach's alpha reliability coefficient was 0.88. 'The Scale of School Perception' developed by the researcher was a 5-point Likert-type scale consisting of 22 items and five sub dimensions (feelings about school, perception about physical circumstance of school, perception about courses, perception about teacher and perception of rule and democracy at school) The Cronbach's alpha reliability coefficient was 0.83.

The data obtained were analyzed using SPSS software. T test and ANOVA test were performed. In addition, LSD (post-hoc) test was used to find the source of the difference.

Of the participants 50.7% were girls and 49.3% were boys. The sample consisted 35.1% 6<sup>th</sup> degree, 35.7% 7<sup>th</sup> degree and 29.2% 8th degree students. According to the school type 52,8 % of the participants were educated in Type A schools and 47.2% were in type B.

### 4. Findings

In this study, mean scores for optimism were compared according to the gender of the students. The results showed that there was a significant difference between two genders ( $t(608) = 2.42, p < .05$ ). According to the results, girls ( $\bar{X} = 67.90$ ) had higher scores than the boys ( $\bar{X} = 65.17$ ) had. Moreover OS scores indicated that there was a statistically significant difference according to the types of schools ( $t(608) = 2.81, p < .05$ ). Students who were educated in type A schools ( $\bar{X} = 68.05$ ) thought that they were more optimistic than the students in type B schools ( $\bar{X} = 64.88$ ).

The analysis of mean scores for school perception showed that there was a significant difference between two gender ( $t(608) = 2.200, p < .05$ ). According to this analysis, the mean score for girls ( $\bar{X} = 73.184$ ) was higher than the boys ( $\bar{X} = 70, 242$ ). Also scores indicated that there was a statistically significant difference among three degrees of students ( $F(2-607) = 5.951, p < .05$ ). Students in 6<sup>th</sup> degree had a more positive perception when compared to the students in 8<sup>th</sup> degree. Mean scores for SPS indicated that there was a statistically significant difference according to types of schools ( $t(608) = 5.864, p < .05$ ). Students who were educated in Type A schools perceived schools more positively than the others.

Mean scores for the sub dimensions of the SPS indicated that, according to the gender variable, there was a significant difference only in sub dimension titled "feelings about school" ( $t(608) = 3.17, p < .05$ ). According to this girls ( $\bar{X} = 10.88$ ) perceived the schools more positively than boys ( $\bar{X} = 11.99$ ) did. There was a statistically significant difference between means of degrees and the titled "the perception about physical circumstance of school" ( $F(2-607) = 4.75, p < .05$ ). According to the results, students in 6<sup>th</sup> degree perceived schools more positively than the other students did. As the students in 6<sup>th</sup> degree ( $\bar{X} = 16.58$ ) perceived more positively than the students in 7<sup>th</sup> ( $\bar{X} = 15.55$ ) do, students in 7<sup>th</sup> perceive more positively than

the students in 8<sup>th</sup> ( $\bar{X}=15.04$ ) did in the sub-dimension titled 'Perception about Teachers' ( $F(2-607) = 8.04, p < .05$ ). For the sub-dimension titled 'Perception about courses' ( $F(2-607) = 5.71, p < .05$ ), students in 6<sup>th</sup> ( $\bar{X} = 11.25$ ) perceived school more positively than the students in 8<sup>th</sup> ( $\bar{X} = 10.27$ ) did. In the sub-dimension titled "perception about physical circumstance of school" ( $t(608) = 0.07, p < .05$ ), students who were educated in schools Type A ( $\bar{X} = 26.18$ ) perceived school more positively than students in schools Type B ( $\bar{X} = 22.42$ ).

In sub-dimension titled 'school-related emotions' ( $t(608) = 32.75, p < .05$ ), students who were educated in schools Type A ( $\bar{X} = 11.81$ ) perceived the school more positively than students in schools Type B ( $\bar{X} = 11.03$ ).

In sub-dimension titled 'Perception about the Courses' ( $t(608) = 2.41, p < .05$ ), students who study in schools Type A ( $\bar{X} = 11.09$ ) got higher points than the students in schools Type B ( $\bar{X} = 10.53$ ). The results of the analyses indicate that there exists a significant difference between the overall scores for 'the perception about physical circumstance of school', 'Perceptions about Teachers', 'Perceptions about the rules and democracy at school', 'Feeling about school' and 'Perception about the Courses' on the Scale for School Perception and the level of optimism.

In the sub-dimension titled "perception about physical circumstance of school" ( $F(2-607) = 29.35, p < .05$ ), there was a significant difference between the mean scores of students with high level of optimism ( $\bar{X} = 26.95$ ) and those with a medium level of optimism ( $\bar{X} = 24.26$ ), and between students with a medium level of optimism ( $\bar{X} = 24.26$ ) and those with low level of optimism ( $\bar{X} = 19.59$ ). With respect to the physical conditions of school, this means that students with high level of optimism perceived the school more positively than those with medium and low level of optimism, and students with a medium level of optimism perceive school more positively than those with a low level of optimism.

In the sub-dimension titled 'Perceptions about Teachers' ( $F(2-607) = 28.42, p < .05$ ), students with high level of optimism ( $\bar{X} = 17.33$ ) perceive school more positively than those with medium ( $\bar{X} = 16.23$ ) and low ( $\bar{X} = 13.73$ ) level of optimism, and students with a medium level of optimism perceive school more positively than those with a low level of optimism.

In the sub-dimension titled 'Perception about the rules and democracy at school' ( $F(2-607) = 19.92, p < .05$ ), students with high level of optimism ( $\bar{X} = 12.11$ ) perceive school more positively than those with medium ( $\bar{X} = 10.49$ ) and low ( $\bar{X} = 8.61$ ) level of optimism, and students with a medium level of optimism perceive school more positively than those with a low level of optimism.

In the sub-dimension titled 'Feeling about school' ( $F(2-607) = 30.64, p < .05$ ) there was a significant difference between the mean scores of students with a high level of optimism ( $\bar{X} = 12.82$ ), those with a medium level of optimism ( $\bar{X} = 11.87$ ) and students with a low level of optimism ( $\bar{X} = 9.57$ ). With respect to the school-related emotions, this means that students with high level of optimism perceive school more positively than those with medium and low level of optimism, and students with a medium level of optimism perceive school more positively than those with a low level of optimism in this sub-dimension.

In the sub-dimension titled 'Perception about the Courses' ( $F(2-607) = 18.48, p < .05$ ), students with high level of optimism ( $\bar{X} = 11.48$ ) perceived school more positively than those with medium ( $\bar{X} = 11.15$ ) and low ( $\bar{X} = 9.57$ ) level of optimism, and students with a medium level of optimism perceive school more positively than those with a low level of optimism as well.

## 5. Conclusion

Individuals who have positive expectations about their life and future may also have positive expectations for schools in which they spend majority of their life. These generalized



expectations may be influential on their opinions or consideration about the school. Optimism can be the source of ideas of students who can consider problems faced at school as 'changeable' and be happy at school. With reference to the hypothesis that optimism is a way of thought which can be 'learned', their adaptation to school will also be supported in case individuals are taught optimism at school. It can be suggested for the researchers that they may study optimism in different groups, and research the effect of the attitudes of parents, teachers and the media on optimism. Additionally, students' opinion about school in different student groups and different variables to affect perception of school can be suggested.

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## THE EFFECT OF COMMUNICATION SKILLS-PSYCHOEDUCATION PROGRAM ON THE COMMUNICATION SKILLS OF THE POLICE ACADEMY STUDENTS<sup>1</sup>

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### Abstract

**Objectives:** Aim of the research is to measure the effect of communication skills- psycho-education program on the communication skills of the students of the police academy. **Research design:** The research has a one-group, pre test-post test, experimental design. The researcher developed a six-week psycho-education program on communication skills so as to apply in the research. All the sessions of the program were built on humanistic approach which was essentially based on clear acceptance, respect, empathetic understanding and sincerity. Gestalt therapy techniques which puts great emphasis on here and now, and awareness were used. In this scope, techniques of expressing emotions and body language were applied. Within the scope of cognitive-behavioural therapy, “imagination”, “role playing”, “behavioural rehearsal”, “didactic techniques” were used. As for psychodrama, techniques such as “empathy exercises” and “role reversals” were used. Sessions were comprised of a brief information on the program and introduction; the importance of self-knowledge in communication; non-verbal communication; active listening and empathy; the role of our cognitive processes on interpersonal communication; and assessment of the program. **Method:** The School Counsellor administered a six-week long “communication skills–psycho-education program” to 10 volunteering students from the police academy in 2012 spring term. Communication Skills Assessment Scale developed by Korkut (1996) was used as pre test-post test. The aim was to check whether there is a significant difference between pre test average scores and post test average scores of communication skills of the subjects. For testing it, Wilcoxon Signed Ranks Test, which is used for testing the significance of the difference between the scores of two related measurement sets, was used as statistical technique. **Findings:** Analysis results show that there is a significant difference between the pre test and post test scores which the students participating in the research achieved on communication skills test( $z=2,81$ ,  $p<.01$ ). The difference observed is in positive ranks, i.e. in favour of the post test. **Discussion:** According to these results, it can be said that the psycho-education program on communication skills has an important effect on improving the communication skills of the police academy students.

**Keywords:** Police academy, Communication, Psycho-education program, Communication skill.

### 1. Introduction

This study is a part of a Tübitak (Turkey Scientific and Technological Research Council) project (No: 111K1776). In this Project, traditional guidance oriented service provided to the students of the Police Academy (Faculty of Security Sciences) by the Unit of Psychological Counselling and Guidance attached to Police Academy was restructured according to developmental guidance model with the aim of supporting the development of life careers of the students.

Guidance services which started with the vocational guidance services of Frank Parsons in 1908 continued its development through vocational guidance services provided at high schools in 1920s. With the effects of developmental guidance which was first proposed by Robert Mathewson in 1949, the efforts for extending the guidance services to elementary schools escalated as of 1960s. Thus, crisis oriented guidance model disappeared gradually and a more active psychological counselling that focuses on preventive works gained more acceptance. In 1980s and 1990s, new books on developmental guidance were published, even

<sup>1</sup> A part of the Tubitak Project No.111K176

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'comprehensive guidance programs' based on this concept were developed and the concept became widespread (Gysbers ve Handerson, 2005; Gibson and Mitchell, 2008; Nazlı, 2011). In Turkey, developmental guidance-oriented psychological counselling and guidance service started at primary education in 2005-2006 and structuring works are still in progress for secondary education. However such structuring works of psychological counselling and guidance services for higher education has not started yet.

Today, there are four approaches mentioned in guidance and psychological counselling services, which are crisis approach (intervention in case of crisis), remedial approach (focusing on inadequate of the student, supporting his/her normal development), preventive approach (raising awareness among students beforehand on such issues as birth control methods, communication skills, anger management and thus preventing any possible crisis), developmental approach (it means supporting students at each age period in accordance with their developmental features in personal, educational, vocational aspects. Developmental approach includes remedial, preventive and crisis approaches as well.) (Nazlı 2011).

In the said Tubitak Project, works for structuring the guidance service of the police academy included such interventions as psychological counselling and psycho-education studies, class-based guidance practices (personal, social, educational, career development, etc.), school-wide activities, consultation services, coordination intervention and peer helping. Development and implementation of a psycho-education for the purpose of improving the communication skills of the police academy students was also included into the program as one of the psycho-education works.

According to the classification made by The Association for Specialist in Group Work (ASGW, 2000) the groups are generally classified under four sections. These are duty/work oriented groups, psycho-education/guidance groups, counselling/interpersonal problem solving groups and therapy/restructuring the personality groups. According to DeLucia-Waack'a (2006), psycho-education groups differ from counselling and therapy groups in three aspects. First of all, target behaviours to be developed through psycho-education groups are certain. Mostly, those groups focus on improving skills, cognitive styles and goal attainment strategies. The structure of psycho-education groups is quite different from those of psychological counselling and therapy groups. The primary function of group structure for psychological counselling and therapy groups is to ensure the continuance of the group and create an environment of confidence. However, the group structure in psycho-education groups is to effectively present the issue in certain amount of time and ensure the improvement of the skill. Psycho-education groups may take 6 to 20 sessions. On the other hand, psychological counselling and therapy groups may last longer than 3 months. Besides, while session are approximately 90-minute long for psychological counselling and therapy, for psycho-education groups, these sessions take 30-45 minutes for children, and 45-60 minutes for adolescents especially at school environment. In psycho-education groups, the leader has a quite instructional role. Therefore, group leaders should have knowledge about the issue and help members focus more activities. On the other hand, in psychological counselling and therapy groups, leaders should create an environment that gives confidence and usually let the members choose the matters of discussion.

The members of the police department usually work under tension, facing unhappy and victimized people. The police works requires constant communication with people; it is a duty which involves being actively armed and serves for ensuring security and peace in places where crime rates increase rapidly; and it also requires working under tough conditions such as irregular working hours, being on guard duty or shift systems, pecking order resulting from the hierarchical structure, any phenomenon of crime and being close to criminals. This conditions cause police officers wear out, get stressed and be in risk group in terms of exhaustion (Kutlu, Çivi ve Karaoğlu, 2009; Şanlı ve Akbaş, 2009). Like in other countries, it is stated that police officers and commanders work under intensive stress in Turkey and experience troubles because of these working conditions.

For this reason today police academies in their training programs should focus on the development of interpersonal communication skills of police officers, beyond just being the power of a law. In the words of Doğutaş, Dolu & Gül (2007) "Today, policing is not just

enforcing the law anymore; on the contrary, it is a part of the social work in the community". Police officers are required to effectively and accurately communicate in one-on-one situations with citizens, especially in conflict resolution and mediation situations. The officer must also be able to effectively communicate with groups and with other criminal justice practitioners (Bradford & Pynes, 1999; Brizer & Tannehill, 2001; Clarke, Milne & Bull, 2011). Some research showed that police officers/acruits training programs are effective on relationships between police and people (Goldstein, 1990; Woods, 2000; Haarr,2001).

## **2. Objective**

Aim of the research is to measure the effect of communication skills-psychoeducation program on the communication skills of the students of the police academy.

## **3. Research Design**

The research has a one-group, pre test-post test, experimental design. The researcher developed a six-week psycho-education program on communication skills so as to apply in the research.

The psycho-education program's objectives:

- To know the factors that influences the personal communication process;
- To recognize the personal features that makes the communication process ineffective;
- To develop verbal and nonverbal communication skills at the end of the whole process.

All the sessions of the program were built on humanistic approach which is essentially based on clear acceptance, respect, empathetic understanding and sincerity. Gestalt therapy techniques which puts great emphasis on here and now, and awareness were used. In this scope, techniques of expressing emotions and body language were applied. Within the scope of cognitive-behavioural therapy, "imagination", "role playing", "behavioural rehearsal", "didactic techniques" were used. As for psychodrama, techniques such as "empathy exercises" and "role reversals" were used. Sessions were comprised of a brief information on the program and introduction; the importance of self-knowledge in communication; non-verbal communication; active listening and empathy; the role of our cognitive processes on interpersonal communication; and assessment of the program.

## **4. Method**

The program was developed by the researcher but the school counsellor administered a six-week-long "communication skills psycho-education program" to 10 male, volunteering students from the police academy/security sciences faculty in 2012 spring term. Communication Skills Assessment Scale developed by Korkut (1996) was used as pre test-post test. The scale which was developed by Korkut (1996) in five level likert type and which comprised 25 items originally aimed at high school students, and then it was administered to university students and 61 adults. Validity coefficient of the scale which was obtained through concurrent validity of scales administered on parents through Emphatic Tendency Scale (Dökmen, 1988) was .58 (Korkut, 1996). Reliability coefficient of the scale was calculated as .76 ( $p<.001$ ) after the reliability study conducted through retest method. As for internal consistency coefficient, alpha value was .80 ( $p<.001$ ) (Korkut, 1996). After the retest study conducted through administering the scale to adults with a three week interval, reliability coefficient was found as .69 (Korkut, 1997).

The aim was to check whether there is a significant difference between pre test average scores and post test average scores of communication skills of the subjects. For testing it, Wilcoxon Signed Ranks Test, which is used for testing the significance of the difference between the scores of two related measurement sets, was used as statistical technique.

## 5. Findings

As you see in Table 1 analysis results show that there is a significant difference between the pre test and post test scores which the students participating in the research achieved on communication skills test ( $z=2,81$ ,  $p<.01$ ). The difference observed is in positive ranks, i.e. in favour of the post test.

**Table 1:** *The Communication Skills Assessment Scale's Pre and Post Tests Results*

As Wilcoxon Signed Rank Test					
Post test - Pre test	N	Mean Rank	Sum of Ranks	Z	P
Negative Ranks	0	,00	,00	2,81	,005
Positive Ranks	10	5,50	55,00		
Equal	0				

$p <.01$

## 6. Discussion and Conclusion

According to these results which are in line with those obtained in the limited research on improving the communication skills of police officers or prospective police officers (Goldstein, 1990; Woods, 2000; Haarr, 2001), it can be said that the psycho-education program on communication skills has an important effect on improving the communication skills of the police academy students. This program as part of an ongoing project showed that a communication skills psycho-education program with police academy students can be meaningful. This study which is carried out as part of a Tübitak Project with the purpose of restructuring guidance services of the police academy in accordance with the comprehensive developmental guidance services is also important in terms of drawing attention to restructuring of guidance services at higher education institutions and it is hoped that it inspires similar studies.

In this study, the program developed by the researcher has been applied by guidance specialists (psychologist and psychological counsellor) and this not only contributes to an improvement in the professional skills of the specialists, but also affects the students' perception of guidance services and their willingness to benefit from this service. Guidance specialist Kıymet Yiğit Demir who had conducted the first application states, in the session evaluation reports, her professional gratification by this process and her motivation to conduct similar activities. In further studies, the program's effect on students' feelings for school, and for themselves such as self-efficacy and self-esteem can be assessed. A new application of same - but revised- program is applied on a different group in this year. After the second application researcher will compare and evaluate the first and the second application results.

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## WORKING WITH SHY ADOLESCENTS: EFFECTIVENESS OF LIFE SKILLS GROUP TRAINING

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### Abstract

In the present study an attempt is made to find out the effectiveness of Group Life Skills Training (LSTG) in reducing shyness adolescents. The sample consisted of 64 adolescents (32 experimental and 32 control) who had high level of shyness. Shyness Assessment Test (SAT) developed by D'Souza (2006) was employed to measure levels of shyness in 3 domains: Cognitive/affective, Physiological and Action oriented. After the selection of subjects, LST in Groups was given to the experimental group for 60 days consisting of 8 sessions. At the end of LST, again, SAT was applied and data were collected on 3 dimensions of shyness. Repeated Measure ANOVA was employed to find out the effectiveness of LST in reducing shyness on all the 3 dimensions and also influence of secondary variables like gender, age. Results revealed that LST in Group is highly effective in reducing the shyness of adolescents in all the domains-cognitive/affective, physiological and action oriented. In cognitive/affective and physiological domains, male adolescents of the experimental group had higher reduction compared to female adolescents. In the action oriented domain female adolescents had higher reduction in scores than female adolescents.

**Keywords:** *Shyness, Life Skills Group Training (LSTG), Adolescents.*

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### 1. Introduction

Shyness is a common but little-understood emotion. Shyness is not a mental disorder. Common sense indicates that Shyness is a behaviour pattern characterized by inhibition in some situations. Shyness is the feeling of withdrawal and ineptness when facing situations a person is unfamiliar with and it is a problem for untold numbers of people. The agony of shyness transcends national boundaries, or divisions of age, sex, race, and nationality. Shyness may be defined experientially as discomfort and/or inhibition in interpersonal situations that interferes with pursuing one's interpersonal or professional goals. It is a form of excessive self-focus, a preoccupation with one's thoughts, feelings and physical reactions. It may vary from mild social awkwardness to totally inhibiting social phobia. Shyness reactions can occur at any or all of the following levels: cognitive, affective, physiological and behavioral, and may be triggered by a wide variety of arousal cues. Metaphorically, shyness is a shrinking back from life that weakens the bonds of human connection.

Studies have revealed that shyness leads to lowered self-esteem and decreased self concept (D'Souza *et al.*, 2002-2003), increased fear reactions among adolescents (D'Souza *et al.*, 2006), and college students (D'Souza, 2007) and decreased levels of happiness (Natesha & D'Souza, 2011), increased maladjustment (D'Souza, Ramaswamy, Rangaiah, 2008). It was also observed that shy adolescents require specific guidance in educational and social areas (D'Souza, Urs, & Jayaraju, 2008) and had lesser social intelligence (Gowda & D'Souza, 2009).

Regarding large quantity of the shy students and relationship of shyness with other various problems like anxiety and depression and its negative influence on student's educational, emotional and mental conditions, applying effective methods to reduce shyness seemed to be necessary. The key to converting shyness into something positive is to develop life skills that will diminish the effect or impact of such a feeling or condition in our life. Present study adopted Group Life Skills training in order to overcome the limitations of other therapies to reduce the shyness in adolescents. According to Gladding (1997) working in groups can be

helpful to adolescents in making a successful transition from childhood to adulthood especially in regard to handling stressful situations.

A thorough search in the literature did not yield many results on LST on shyness among Indian adolescents. In the present study, an attempt is made to find out the efficacy of LST on shyness among Indian adolescents. Following directional hypotheses were formulated for the present study.

## 2. Hypotheses

H1: LST in Group is effective in reducing shyness in cognitive/affective domain.

H2: LST in Group is effective in reducing shyness in physiological domain.

H3: LST in Group is effective in reducing shyness in action oriented domain.

H4: There will be differential reduction for male and female adolescents in their shyness scores in various domains.

## 3. Method

### 3.1. Participants

Participants were selected through screening of more than 500 adolescents for shyness. Only those adolescents who had high levels of shyness were considered for the present study. The researcher selected 64 shy adolescent students and divided them into 2 groups (32 each), experimental and control groups, and in each group there were equal number of male and female adolescents. They were randomly distributed and a randomization between them was further confirmed by independent sample 't' test for pre test scores (as all the pre test differences between experimental and control groups were found to be non-significant). The experimental group was administered LST in groups and control group was not given any specific intervention.

### 3.2. Measures: Shyness Assessment Test (D'Souza, 2006).

The shyness assessment test was developed by D'Souza (2006) of Maharaja's College, University of Mysore. It consists of 54 items and requires the subject to indicate his/her response by ticking 'Yes', or 'No', or 'can't say' The items in the test pertain to three domains of shyness- Cognitive/Affective, Physiological and Action oriented. SAT is developed exclusively on Indian adolescents by D'Souza (2006). The reliability index ascertained by split half (odd-even) method and Cronbach's alpha coefficient for the scale as a whole were found to be 0.735 and 0.812 respectively.

## 4. Procedure

### 4.1. The entire procedure consisted of 3 phases: Screening/Pre test, LST Intervention and Post-test.

*Phase I: Screening/pre-test:* In the first phase, the researcher administered the shyness assessment test to a large sample (N= 500). Only those participants who had high degree of shyness and shown willingness to the investigation were selected for the study. The first author selected 64 adolescents having high degree of shyness (81 and above), 32 boys and 32 girls. Further, those 64 students were randomly divided into two groups-experimental and control having gender matched control.

*Phase II: LST Intervention:* After the selection, the LST was done in groups on the experimental group for 8 sessions lasting for 60 days. After the introduction, the researcher explained about the LST programme. At this stage the researcher defined and explained the relation among thought, emotion and behavior and then evaluated the problem regarding LST. Then each subject was asked to narrate his/her recent shy situation and kind of physical, psychological and behavioral reactions have had (2 sessions). The subjects were then trained in some of the life skills such as self awareness, thinking skills, self esteem, social skills, interpersonal and communication skills (3 sessions). Lastly, the researcher used assertiveness



training through Role playing and modeling methods (3 sessions). In this method, the researcher helped the subject to specify situations in which he or she is unassertive. In addition, the researcher often modeled effective assertive behaviors for the subject, (Gelso & Fretz, 1995). A live model used for subjects in the sessions for teaching appropriate behavior, influence the attitude and the values and teach social skills. At the end of each session the researcher gave some homework to the subjects and investigated their response in the next session. Also at the beginning of the session relaxation training was also given.

*Phase 3: Post-test:* Post test was administered after 2 weeks from Phase 2, again Shyness Assessment Test was given to participants of both experimental and control groups.

#### **4.2. Statistical Analysis:**

Independent samples 't' tests were applied to find out the difference between experimental and control groups in their mean shyness scores on various domains of shyness assessment test. After the intervention, once the scores were obtained on various domains of SAT, Repeated Measure ANOVA was employed to find out the effectiveness of LST over control group. The statistical operations were done through SPSS for Windows (version 14.0, 2005).

### **5. Results**

Table 1 presents mean pre and post test scores of male and female adolescents in experimental and control groups on various domains of Shyness Assessment Test with the results of repeated measure ANOVA.

#### **5.1. Groups, gender and Cognitive/affective domain**

A significant decrease was observed from pre to post test sessions in the mean shyness scores of adolescents irrespective of the groups ( $F= 207.785$   $P=.000$ ). In the pre test the entire sample had mean shyness scores of 62.45 which had reduced to 45.16. Further, the reduction in the shyness scores with respect to groups was also found to be significant ( $F= 248.661$ ;  $P=.000$ ). From the mean values, it is clear that LST group had a reduction of 36.21 scores (from 64.84 to 28.63) and control group showed an increase in shyness scores by 1.63. The change in the shyness scores with respect to gender, and group and gender were found to be non-significant. Hence hypothesis 1 stated as LST in group is effective in reducing shyness in cognitive/affective domain is accepted.

#### **5.2. Groups, gender and Physiological domain**

As far as the physiological domain is considered, again a significant decrease was observed from pre to post test sessions in the mean shyness scores of adolescents irrespective of the groups ( $F=91.607$ ;  $P=.000$ ). In the pre test, both groups had mean shyness scores of 20.95, which had reduced to 15.86. Further, the reduction in the shyness scores with respect to groups was also found to be significant ( $F= 95.010$ ;  $P=.000$ ). From table it is evident that LST group had a reduction of 10.28 scores (from 20.66 to 10.38) and control group showed an increase in shyness scores by 0.09. The change in the shyness scores with respect to gender, and group and gender were found to be non-significant. Therefore, hypothesis 2 stated as LST in group is effective in reducing shyness in physiological domain is accepted.

#### **5.3. Groups, gender and Action Oriented domain**

In action oriented domain a significant decrease was observed from pre to post test sessions in the mean shyness scores of adolescents irrespective of the groups ( $F= 75.535$ ;  $P=.000$ ). In the pre test both the groups had mean shyness scores of 20.33 which had reduced to 15.16. Further, the reduction in the shyness scores with respect to groups was also found to be significant ( $F= 65.828$ ;  $P=.000$ ). From the table it is evident that LST group had a reduction of 10.00 scores (from 20.69 to 10.69) and control group had a reduction of only 0.34 scores. The change in the shyness scores with respect to gender, and group and gender were found to be

non-significant. Hypothesis 3 stated as LST in group is effective in reducing shyness in action oriented domain is accepted.

#### **5.4. Groups, gender and Total shyness scores:**

In total shyness scores, a significant decrease was observed from pre to post test sessions in the mean total shyness scores of adolescents irrespective of the groups ( $F= 203.670$ ;  $P=.000$ ). In the pre test, the entire sample had mean total shyness scores of 103.73 which had decreased to 76.17. Further, the reduction in the shyness scores with respect to groups was also found to be significant ( $F= 224.498$ ;  $P=.000$ ). From the mean values, it is clear that LST group had a reduction of 56.50 scores (from 106.19 to 49.69) and control group showed an increase in shyness scores by 1.38. The change in the total shyness scores with respect to gender, and group and gender were found to be non-significant. Main findings of the present study are,

- LST in group is highly effective in reducing the shyness of adolescents in all the domains-cognitive/affective, physiological and action oriented.
- Gender had no significant influence in reducing shyness
- Maximum reduction was observed in the cognitive/affective domain of shyness among adolescents

From the preceding results, it is clear that in all the domains there were significant reductions in the shyness scores in the experimental group, which can be attributed to effectiveness of LST in group on shyness. Hypotheses 1,2 and 3 were accepted and hypotheses 4 is rejected.

## **6. Discussion**

The principal goal of the present study was to find out the efficacy of LST in group on shy adolescents. The findings of the study definitely reveal that LST in group was highly effective in reducing shyness in the selected 3 domains-cognitive/affective, physiological and action oriented.

The effective acquisition and application of Life skills influence the way people feel about themselves and others, and equally influence the way people are perceived by others. According to WHO (1997) life skills contribute to peoples' perceptions of self-efficacy, self-confidence and self-esteem. The studies have demonstrated positive behavioral effects of LST on smoking, alcohol, marijuana use as well as the use of multiple substances and illicit drugs, with prevention effects lasting up until the end of high school (Botvin and Griffin, 2004). According to Gladding (1997), working in groups can be helpful to adolescents in making a successful transition from childhood to adulthood especially in regard to handling stressful situations.

The LST used in the present study on shy adolescents helped them to identify their problems regarding shyness in groups. Assertiveness training is an important behavioral strategy to master and is available for subjects. It was developed in the late 1960s and has come to be one of the more widely accepted techniques for assisting subjects regardless of one's theoretical orientation (Ivey & Ivey, 2003). The researcher played the role -person towards whom the subject role – plays assertiveness, the subject pays attention to his or her feelings during and after the role playing, the researcher observes specific strengths and weaknesses, positively reinforcing positive behavior and non – judgmentally noting the negative. According to Hoelson and Van Schalkwyk (2001) role playing techniques increase members' awareness and understanding of their interpersonal skills and produce behaviour changes by providing members with corrective feedback. Modeling or observational learning is a label for the process where by an individual learns shy viewing on others behavior. Bandura suggested that the important aspects of observational learning were processes of attention, retention, motor reproduction, and incentive and motivation (Meyers & Crighead, 1983).

To conclude, LST in group was found to be highly effective in reducing shyness. Present study involved only adolescents as sample, future researchers can extend the study to adults and children. Further, therapists and mental health professionals should recognize the serious need for treatment of shy people, and should develop similar programs like LST

Individual (LSTI) and so on, to liberate the millions of people who are trapped in their silent prisons of shyness.

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## **TRANSITION IN TRANSITION OUT (TITO): USING PEER MENTORING TO ASSIST GRADUATING STUDENTS TRANSITION BEYOND UNIVERSITY**

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### **Abstract**

Contemplating entry into the workforce can be a daunting process for students as they prepare to complete their undergraduate degree. Final year psychology students can find this process particularly challenging, given that many do not proceed into postgraduate psychology programs and are left to contemplate their options. It is clear that assisting students in this period of transition and improving their work preparedness skills is crucial. This project used a repeated-measures within-subject design to deliver a peer mentoring program across two Australian universities, one face-to-face (RMIT University) and one online (University of Southern Queensland). In the program, final year psychology students mentored first year students and, through this process, develop important work preparedness skills that can be used in their later transition into the workplace. This paper will focus on the impact of the program on the third year student experience, including their preparedness for life beyond their undergraduate degree. The paper will report on the pre- and post-test scores for third year students on measures exploring the five senses of success, learning approaches, preparedness for entry into the workforce, and perceptions of peer mentoring.

**Keywords:** *Transition, University, Peer Mentoring.*

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### **1. Background**

The issues characteristic of the first year experience have been previously well documented including high attrition rates, lowered academic performance, lowered social support, and impact on student wellbeing (Wilson & Lizio, 2008; Kift, 2009; Tinto, 2000, Krause, 2005). As a consequence, many educators have highlighted the importance of engaging students, connecting them with staff and each other, and providing meaningful feedback early in their first year of study (ACER, 2009; Sudano & Chester, 2009; Quinlivan & Xenos, 2010). In comparison, the transition issues for final year undergraduate students have been less well understood, although considerable work has been conducted on graduate attributes and work-integrated learning as preparation for transition out of university (e.g., Barrie, Hughes, & Smith, 2009). While many students successfully enroll in postgraduate study, a large proportion exit university after the completion of their undergraduate degree and often leave without a professional identity and feeling poorly prepared for their career (Cranney & Dunn, 2011). Providing meaningful work-integrated learning for undergraduate students is therefore crucial.

### **2. The TiTo model**

According to Lizzio's (2012) lifecycle, final year students are less concerned with their 'student identity' and are more focused on negotiating their 'graduate and professional identity'. The peer mentoring model that was developed, known as Transition In Transition out (TiTo), was therefore designed to better support graduating students as they transition out of university and into the workforce or further study.

The TiTo model is flexible, with the capacity to be adapted for both face-to-face and blended learning contexts. In the face-to-face TiTo model that is the focus of this paper, peer-mentoring was embedded into a third year capstone course, providing final year students, regardless of GPA, with the option to volunteer as a mentor to a first year student as a way of

further consolidating their knowledge of psychological concepts, build professional capabilities and experience, demonstrate achievement of graduate attributes, and importantly, through a series of self-reflective exercises, reflect on their own career aspirations and professional identity. Mentors were provided with an intensive training package, supplemented by weekly classes to prepare, debrief, and share ideas. In the blended learning (online) context, mentors received ongoing support throughout the program via weekly online real-time sessions facilitated by their third year lecturer. Thus, the TiTo program provided third year psychology students with an opportunity to master knowledge and understanding of key psychological content, develop their leadership skills by facilitating small group discussions, and reflect critically on their learning experiences during the program.

Mentoring was integrated into the first year curriculum and provided to all first year students in face-to-face classes. The third year mentors worked with a small group of five to six first year students on the development of skills to support completion of assessment tasks for eight weeks of the semester. Mentors attended the second hour of tutorials and worked with the students, while the tutor stayed in the room. The focus for mentors was on supporting academic skill development to assist first year students to complete their assessment on time and with confidence. Psychosocial transition issues were also explored, such as building connections to other students, as well as practical aspects such as access to support services.

Crucial to the face-to-face delivery of TiTo were the first year tutors, who remained in the first year tutorials while the mentors worked with the student groups. Tutors attended the mentor training to meet their group of mentors and during the semester provided timely feedback to mentors based on observations in class and contributed a small component of the third year students' mentoring practice grade. Tutors also provided their mentors with a written reference at the completion of the semester. For the online context, the first year course examiner provided guidance and advice to the third year mentors and had general access to all mentor group discussions.

The TiTo model was developed from a sound pedagogical base, bringing together two overlapping frameworks to support the transition, engagement, and learning of students:

### **2.1. The Five Senses of Success framework (Lizzio, 2006)**

This framework highlights the major predictors of student success, and suggests that succeeding as an undergraduate student involves helping students build capacity across five areas: capability (understanding the student role; mastering academic knowledge and skills), connectedness (building relationships with peers and staff; identifying with the university), purpose (setting realistic goals; engaging with the discipline; developing a sense of vocation), resourcefulness (knowing about university resources and procedures; balancing work, life, and study), and culture (appreciating the core values and ethical principles of higher education). Helping students build capacity in each of these five areas is a complex task and unlikely to be accomplished by a single initiative. Nevertheless, TiTo was designed to address all five needs for third year mentors and the first year mentees.

### **2.2. Deep, Surface, and Strategic Approaches to Learning (Entwistle, 2000)**

Together with a focus on the five senses of success, TiTo was explicitly designed to support the development of productive approaches to learning. Entwistle's (2000) tripartite model of deep, strategic, and surface learning was employed. According to this model, a *deep approach* to learning is associated with a desire to understand material, a tendency to link ideas and seek relationships to other knowledge, the use of evidence to draw conclusions, and an intrinsic motivation for study. The *strategic approach* is associated with time management and planning, confidence, competitiveness, consciousness of the assessment demands, and a capacity to monitor progress. A *surface approach* is characterized by lack of direction, reliance on rote learning, and fear of failure (Walker, Spronken-Smith, Bond, McDonald, Reynolds, & McMartin, 2010). While small but significant changes over time have been documented in deep, strategic and surface learning amongst first year students following purposeful curriculum change (e.g., Walker et al, 2010), it was anticipated that helping third year mentors better

understand these aspects of learning would also result in improvements in these areas for these students.

### 2.3. Research Aims

This current paper reports on the effectiveness of the TiTo model in supporting transition and improving work preparedness skills for third year students as they contemplate life beyond university. The model was implemented and tested in two different university contexts. The first was a large urban university, RMIT University, which has a student cohort of more than 70,000 based on several campuses in urban Melbourne and off-shore. The second university was the University of Southern Queensland (USQ), a smaller regional provider, with approximately 25,000 students spread across three campuses in the south-east of Queensland. USQ has a particular expertise in online delivery, with more than 75% of students studying off-campus. It was hypothesized that by the end of the TiTo program, the third year students would show enhancements on the five senses of success, improved scores on deep and strategic learning, and importantly increased preparedness for entry into the workforce or life beyond university.

## 3. Method

### 3.1. Participants

This paper presents data from one university, RMIT University, where classes were provided on campus. Of the 53 students in the third year course, 39 choose the mentoring option and 34 (23, females and 11 males) provided pre and post-test data for the project. The surveys were embedded into assessment tasks. The average age of the third year mentors was 21.68 years ( $SD=2.64$ ). The demographic characteristics of the mentors is representative of the undergraduate psychology population at this metropolitan Australian university.

### 3.2. Measures

The third year students were surveyed at the beginning and end of semester on a range of measures. The two measures reported in this paper are described below:

#### *Five senses of success*

The Five Senses scale was adapted from the work of Lizzio (2006). The scale consisted of 73 items measuring the five subscales of capability (21 items), connectedness (16 items), purpose (12 items), resourcefulness (19 items) and culture (5 items). All items are responded to on a 5-point Likert scale ( $1 = strongly disagree$  to  $5 = strongly agree$ ). The psychometric properties of the five subscales show satisfactory internal reliability estimates ranging from .80 for culture to .92 for capability (Sharrock, 2011). The internal consistencies of the sub-scales in the present study were capability  $\alpha = .91$ , connectedness  $\alpha = .87$ , purpose  $\alpha = .85$ , resourcefulness  $\alpha = .90$  and culture  $\alpha = .80$ .

#### *Learning approaches*

The three learning approaches were measured using the Approaches and Study Skills Inventory for Students (ASSIST; Entwistle 2000). The scale includes 52 items, each of which is answered on a 5-point Likert scale ( $1 = agree$  to  $5 = disagree$ ). The ASSIST has demonstrated a sound factorial structure as well as good internal reliability and predictive validity (Gadelrab, 2011). The internal consistencies of the three learning approaches scales in the present study were deep  $\alpha = .85$ , strategic  $\alpha = .86$  and surface  $\alpha = .79$ .

#### *Peer mentoring evaluation*

Three forced-choice questions were administered to evaluate student perceptions of the peer mentoring program, as follows: (1) Peer mentoring helped the quality of my work.; (2) Peer mentoring helped me feel like I belong.; (3) I enjoyed peer mentoring. Each question was answered on a 5-point Likert scale ( $1 = strongly disagree$  to  $5 = strongly agree$ ).

## 4. Results

### 4.1. Senses of Success

Table 1 shows increases on four of the five senses of success over the course of the semester for third year students. Repeated measures t-tests reveal the significant increases on connectedness (with a moderate effect size), resourcefulness, capability, and purpose. No change was observed on the dimension of culture.

**Table 1:** *Repeated Measures t-test Five Senses of Success Scores for Third Year Students*

	Pre-test M (SD)	Post-test M (SD)			
Third Year			<i>t</i> (33)	<i>p</i>	<i>d</i>
Connectedness	3.92 (.60)	4.19 (.56)	-3.88	<.001	-.47
Culture	4.34 (.56)	4.34 (.54)	-.08	.938	.00
Resourcefulness	3.88 (.51)	4.07 (.59)	-2.61	<.05	.34
Capability	3.90 (.51)	4.06 (.57)	2.29	<.05	-.30
Purpose	3.77 (.68)	4.00 (.59)	2.61	<.05	-.36

*Note:* All subscales measured on 5-point scale 1 = disagree, 5 = agree

### 4.2. Learning Approaches

At the beginning of the semester, third year students reported lower deep and strategic mean scores and higher surface learning scores. However, by the end of semester, significant and large increases were observed in deep and strategic learning, and a small and non-significant decrease was noted in surface learning.

**Table 2:** *Repeated Measures t-test Learning Approach Scores for Third Year Students*

Learning approach	Pre-test M (SD)	Post-test M (SD)			
Third Year			<i>t</i> (33)	<i>p</i>	<i>d</i>
Deep	2.34 (.62)	3.83 (.51)	-8.37	<.001	-2.63
Strategic	2.55 (.81)	3.74 (.52)	-6.11	<.001	-1.75
Surface	2.99 (.59)	2.80 (.57)	1.06	.30	.33

*Note:* Possible score range for all items was 1-5.

### 4.3. Year Student Evaluation of TiTo

Third year mentors evaluated the program extremely favorably. All the mentors enjoyed the program. The majority perceived the program to support their academic work (85%) and nearly all (94%) felt it helped their sense of belonging.

The quantitative data summarized above was supplemented by responses to open-ended questions about the best aspects of the mentoring program. Perceived to be most helpful was assisting mentors in the development of a sense of purpose and skill development. As one student commented, “the mentor program helped me build up on vital life skills in leadership and communication...it was rewarding learning how to facilitate a group because I can see how that will be used in my career”. Also rated highly were self-awareness and self-reflection and better insight into teaching and lecturing. As one student noted, “it was helpful to reflect on the concepts and advice I was providing the first year students as it applied to myself”, and be more self-aware of my strengths and weaknesses and most importantly how I could improve my approach”.

## 5. Discussion

Overall the TiTo program produced positive changes for the third year mentors. Improvements were observed in mentors’ sense of purpose and vocation, as well as

connectedness to peers, staff, and the broader university, and enhanced understanding of the university resources and procedures. This increased sense of vocation and preparation for life beyond university is particularly pleasing, and provides evidence that the TiTo model provides the third year students with an opportunity to improve their work-preparedness skills and reflect on their graduate identity. This was also substantiated by the qualitative data.

In addition, the TiTo program provided the mentors with an opportunity to further consolidate their knowledge of psychological concepts. It is likely that in supporting the learning of their first year mentees, the mentors are able to consolidate and enhance their own knowledge and thus enhance their confidence and leadership skills. Indeed, this was substantiated by the qualitative data, with 85% of mentors reporting that their participation in the program had improved the quality of their work.

The TiTo program was also associated with significant change on the mentors' learning approaches, with an increase in deep and strategic learning noted. This is an important change as deeper learning can assist the third year students with applying their academic skills into the work domain and ultimately help in their transition beyond university.

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## PERSONALITY AND ACADEMIC DISHONESTY: EVIDENCES FROM AN EXPLORATORY PILOT STUDY

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### Abstract

The study seeks to investigate the extent to which students at a public university in Bucharest engage in unethical behavior within the academic environment such as fraudulence, plagiarism, falsification, delinquency, unauthorized help etc., depending on their personality. This study was conducted using a survey method of 252 students at graduate and post-graduate level. The findings indicate that personality traits such as conscientiousness are significantly and negatively correlated with unethical behavior in the case of university students ( $r=-.281$ ,  $p<.01$  with plagiarism;  $r=-.250$ ,  $p<.01$  with fraudulation;  $r=-.233$ ,  $p<.01$  with misconduct;  $r=-.217$ ,  $p<.01$  with unauthorized help). Similarly, neuroticism is significantly associated with plagiarism ( $r=.214$ ,  $p<.01$ ), fraudulation ( $r=.163$ ,  $p<.01$ ) and misconduct ( $r=.156$ ,  $p<.05$ ). Significant differences regarding falsification are also observed between graduate and postgraduate students ( $t(250)=-2.075$ ,  $p<.05$ ). This research provides some valuable insights on allowing educational institutions and those directly involved in the educational process, to develop relevant policies and guidelines on matters pertaining to academic conduct.

**Keywords:** *Academic ethics, Personality, NEO-PI-R, Cheating, Unethical behaviour.*

### 1. Introduction

Previous research indicates that different types of violations of the academic integrity such as plagiarism, cheating on exams, and copying assignments from other students (Jensen, Arnett, Feldman, & Cauffman, 2002) are quite prevalent in colleges and universities worldwide. Some reports claim that 74% of high school students and 95% of college students are admitting to at least one incidence of cheating (Marsden, Carroll, & Neill, 2005; McCabe 2001; McCabe & Trevino, 1997).

Cizek (2004) has provided an expanded definition of academic cheating that covers the complexity of the behaviour: “. . . any intentional action or behavior that violates the established rules governing the administration of a test or the completion of an assignment, gives one student an unfair advantage over other students on a test or an assignment, or decreases the accuracy of the intended inferences arising from a student’s performance on a test or an assignment” (p. 308).

Other authors (Arent, 1991; Packer, 1990), distinguished many different forms of academic dishonesty: lying, cheating on exams, copying or using other people’s work without permission, altering or forging documents, buying papers, plagiarism, altering research results, providing false excuses for missed tests and assignments or making up sources.

Being a complex and a multidimensional behaviour not easily explained by a single framework or perspective (Gallant & Drinan, 2006), academic dishonesty is related to a variety of factors (Bolin, 2004). One of those factors with possible significant influence is represented by the student’s personality (DeBruin & Rudnick, 2006).

Within personality psychology, five dimensions have been identified as overarching personality features, being named the five factor model (Costa & McCrae, 1992; Pervin, 1999). The five factors are neuroticism, extraversion, openness to experience, agreeableness and conscientiousness (Costa & McCrae, 1992).

Previous findings (Anderman, Griesinger, & Westerfield, 1998; Haines, Diekhoff, & LaBeff, 1986; Murdock, Hale, & Weber, 2001) reported that individual variables such as level

of self-efficacy, attitudes and general personality characteristics represent important factors in a student's decision to engage in academically dishonest behaviours.

## 2. Objectives

The main objective of current study is to analyze the relations between different types of academic dishonesty behavior and general personality traits according to the big five model.

Starting from previous studies conducted by DeBruin and Rudnick (2006), we hypothesize that participants with high scores on the conscientiousness domain scale of the NEO-PI-R will have engaged in less acts of academic dishonesty. It is also predicted that participants with high scores on the neuroticism domain scale of the NEO-PI-R will have engaged in more acts of academic dishonesty.

## 3. Methods

### 3.1. Participants

This study was conducted using a survey method of 252 students at a public university in Bucharest (age  $M=21.23$ ,  $SD=3.45$ ; 17 males and 235 females) from graduate and post-graduate level. The prevalence of female participants is an artifact which can be explained by the nature of the faculty specialization itself, being well known that communication and public relations, psychology and human resources are usually gender biased occupations. A non-random, convenience sampling design involving a wide array of students was used.

Students were asked to participate in the study by voluntarily completing the survey. The questionnaire was distributed by one of the authors of this paper who briefly discussed the nature of the research. Due to the nature of investigation the anonymity was fully assured by avoiding the registration of any personal data which might be linked to the persons. The demographic characteristics of the respondents are presented in Table 1.

**Table 1:** *Demographic characteristic of the students (N=252)*

Gender/ College Level	First year	Second year	Third year	Postgraduate	Total
Male	4	7	1	5	17
Female	76	68	25	66	235

### 3.2. Measures

The NEO PI-R is a self-administered personality inventory that measures five domains of personality: neuroticism, extraversion, openness, agreeableness, and conscientiousness (Costa & McCrae, 1992). The NEO PI-R includes 240 items which are scored on those 5 domains, each having six sub-facets. For example, the Conscientiousness domain scale of the NEO PI-R measures six sub-facets of conscientiousness: competence, order, dutifulness, achievement striving, self-discipline, and deliberation (Costa & McCrae, 1992). All items for the NEO PI-R are rated on a 5-point scale from 1 (*strongly agree*) to 5 (*strongly disagree*). The domain scales show internal reliabilities which range from .87 to .92. Facet scales show internal reliabilities ranging from .58 to .82. and test retest reliabilities are all above .75.

The Academic Dishonesty Questionnaire consisted of 39 items adapted from Pavela (1978) and Cizek (2003) descriptors. Out of those, 23 measure dishonest behavior clustered in five scales: cheating / fraudulence, fabrication / falsification, facilitating dishonest behavior / unauthorized help, plagiarism and misconduct; 10 items are dealing with possible motivations, one is related to past behavior, one with the role of religion and 4 are factual items (gender, college level etc.).

#### 4. Results

Based upon the frequency of self-reported cheating behaviors listed in Table 2 some conclusions can be drawn. First, only a minority of students admit or report to engaging in *fabrication* ( $M=1.38$ ; *I have falsified or fabricated a few research data*). On the other hand, the highest score was reported for *unauthorized help* ( $M=1.87$ ; *I have wrote or provided a paper for another student*), followed by plagiarism ( $M=1.77$ ; *I have paraphrased issues that I had been reading here and there, without mentioning in my paper that they belong to other authors*) and cheating/fraudulation ( $M=1.73$ ; *I have used unpermitted crib notes or cheat sheets to help me complete my test or exam*).

Sixty-three percent of students admitted that they have facilitated in one way or another academic dishonesty, 58% plagiarism and 53% involvement in cheating behaviors.

**Table 2:** Mean scores distribution by type of behavior

		cheating/ fraudulation	fabrication	unauthorized help	plagiarism	misconduct
Students	Mean	1.73	1.38	1.87	1.77	1.39
	S.D.	.451	.449	.412	.532	.344

Regarding the main objective of the study we have determined the Pearson correlations between all five personality factors and self-reported cheating behaviors (Table 3). The results confirm the association between conscientiousness and unethical behaviors. Therefore, participants with high scores on the conscientiousness domain scale of the NEO-PI-R will engage in less acts of academic dishonesty, the variables being negatively correlated ( $r=-.281$ ,  $p<.01$  with plagiarism;  $r=-.250$ ,  $p<.01$  with cheating/fraudulation;  $r=-.233$ ,  $p<.01$  with misconduct;  $r=-.217$ ,  $p<.01$  with unauthorized help).

**Table 3:** Pearson correlations between cheating behaviors and personality factors ( $N=252$ )

	N	E	O	A	C
fabrication	,033	,002	,014	-,133*	-,077
plagiarism	,214**	,006	-,091	-,107	-,281**
fraudulation	,163**	,027	-,106	-,075	-,250**
unauthorized help	,046	,116	,022	,010	-,217**
misconduct	,156*	,009	-,013	-,172**	-,233**

Similarly, the hypothesis regarding the relationship between the neuroticism factor and academic dishonesty was also confirmed in the case of three of the specific behaviors assessed (plagiarism,  $r=.214$ ,  $p<.01$ ; cheating/fraudulation,  $r=.163$ ,  $p<.01$  and misconduct,  $r=.156$ ,  $p<.05$ ), namely participants scoring high on neuroticism scale are engaging more frequently in unethical behaviors such as plagiarism, cheating or misconduct.

#### 5. Discussion

This study found that 63% of participants admitted being involved in different forms of academic dishonesty behavior at least once within the past year. We consider this percentage to

be a high one given the fact that cheating behaviors are often under-reported by students (Paulhus, 2002).

The findings presented in the current research are mirrored by previous studies (Chamorro-Premuzic & Furnham, 2003; DeBruin & Rudnick, 2007) that reported conscientiousness to be linked with academic performance. Also, conscientiousness has been found to be positively related to academic success, integrity, and achievement in the workplace (Salgado, 2003; Wanek, Sacckett, & Ones, 2003).

In contrast, conscientiousness has been demonstrated to be inversely related to negative work habits such as dishonesty and missed days of work (Salgado, 2003; Wanek et al., 2003).

This study found as well that those who reported higher levels of academic dishonesty also had higher levels of neuroticism, in accordance with Karim, Zamzuri, and Nor's (2009) results which indicate that those with higher neuroticism scores were more likely to engage in plagiarism. The present findings also relate to those of Chamorro-Premuzic and Furnham (2003) who found neuroticism to be a negative correlate and predictor to academic achievement.

Of course that there is much more research needed to fully understand what types of cheating students engage in, how frequently they cheat, and especially why they cheat. Future studies should include measures for social pressures to cheat or not to cheat and other areas such as the motivation behind cheating behavior.

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## HOW TO IMPROVE THE WRITING OF OPINION ESSAYS? – THE ROLE OF SELF-REGULATED STRATEGIES DEVELOPMENT

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### Abstract

This study aims to identify, describe and analyze the impact of Self-Regulated Strategy Development (SRSD) for opinion writing. We used the mnemonics: Pick my idea, Organize my notes and Write and say more and Topic sentence, Reasons, Explain reasons and Ending (POW+TREE) strategies with 39 fourth grade students from Braga, Portugal. We adopted a quasi-experimental design, using one class as the experimental group and another class as the control group. The students from the experimental group learned the two self-regulation writing strategies in six sessions of forty-five minutes each, during two months. The quantitative data obtained were analyzed by descriptive and inferential statistics. We observed that these strategies had a positive influence at several levels: Portuguese language, autonomy, motivation and analyzing capacities in the writing process. In the experimental group there were statistical differences, in the number of words, in the number of transition words and in the quality of the opinion essays, between the pre and posttests. It was also observed a highly effect size in the number of words (0,85) and transition words (1,22) and one condition that must be considered (0,63) in the quality of the opinion essays. The results described indicate that POW+TREE strategies help to enhance the performance of these students in writing opinion essays. Implications for practice will be discussed. Bearing in mind that Information and Communication Technologies (ICT) provide interactive, flexible and powerful tools to develop high quality writing by students with and without specific learning disabilities, we will be proposing ways of analyzing its role in learning these strategies, in future research.

**Keywords:** *Learning, Writing, Self-regulation strategies, Opinion essay, Specific learning disabilities.*

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### 1. Introduction

Writing expressive essays is a highly complex and demanding task, which involves several processes, skills and sub-skills (Harris, Graham & Mason, 2002) and plays a key role in students life. Particularly, opinion writing is indispensable as it is linked to the act of judging and support decision-making positions, privileging the ability to argue or defend a point of view (Werlich, 1975, cited by Petitjean, 1989). However, it is devalued in the Portuguese National Curriculum for Primary School over other types of written expression.

In Portuguese schools there are students with and without Specific Learning Disabilities (SLD) that are unlikely to experience success in writing opinion essays. Furthermore, there are not adequate resources to support those students in these tasks. Those who have SLD or problems in composing texts, produce a written essay that is less careful, organized, extensive, coherent and strategic, as compared to their age peers (Harris, Graham, Mason, & Friadlander, 2008; Harris, Graham, & Mason, 2002). Therefore, it is increasingly important to address the fact that, often, no one teaches these students the strategies that fit their own way of thinking and learning. However, teaching appropriate strategies and techniques dramatically reduces students' problems (Winerbrenner, 1996). Hence, successful experiences will result in increased motivation that will have a positive impact on their writing processes (Graham & Harris, 2009b). In this sense, a model of SRSD, including strategies POW+TREE (Harris & Graham, 2005), represents a model with empirical validity that has been investigated in the composition of opinion essays (Friadlander, Graham, Harris & Mason, 2008; Mastropieri, Regan, & Spring, 2009). The results have shown that students with and without SLD improved their writing, namely on quality, knowledge of the written characteristics, approach, attitudes

and self-efficacy (Graham & Harris, 2009; Graham, Lane, Harris & Weinsenbach, 2006; Mastropiei & Scruggs, 1992). Those improvements were maintained and generalized after the studies ended (Graham, Harris, & Santangelo, 2008).

Thus, this study aimed to describe and to analyze the impact of the SRSD approach in writing opinion essays, with a 4th grade class of a primary school in Portugal.

The specific objectives of this study were: 1) To describe the differences in students' evaluations before and after the intervention in the area of Portuguese (namely, the progressive mastery of the basic rules of writing, progressive mastery of writing skills, motivation, autonomy and analyzing capacities); 2) To describe students' satisfaction on learning POW+TREE strategies; 3) To describe and compare the results of the control group and the experimental group before and after the learning strategies, 4) To analyze the impact of the independent variable, the number of words, text connectors and quality of opinion essays produced by the experimental group; and 5) To analyze the effect size of learning POW+TREE.

In Portugal, research on writing of students with SLD or writing problems is still almost inexistent. Accordingly, we intend to present and disseminate the strategies POW+TREE, approaching the knowledge gained through years of research on educational practices applicable to the Portuguese context. With that in mind we want to promote students autonomy in the writing process and, above all, the awareness of the mechanisms involved. Below, we will present the methodology which was carried out in our study, as well as results and conclusions.

## **2. Method**

### **2.1. Design**

We developed a quasi-experimental study, predominantly quantitative in nature that follows a design pretest - posttest in the experimental and control group. Students from the experimental group learned two SRSD strategies for opinion writing in six sessions of forty-five minutes each, during two months, while students in the control group learned opinion writing according to the teacher traditional approach.

### **2.2. Sample**

The sample was comprised of 39 children (divided between experimental and control group) who attended the 4th grade of a primary school within a school cluster in Braga, a city in northern Portugal. They were aged between 9 and 13 years old, with an average age of 9.59 years (standard deviation = 0.818 years). Twenty two participants (56.4%) were females and the remaining 17 (43.6%) were males. The majority of the sample - 32 students (82.1%) - was Caucasian, 3 students (7.7%) were of African origin, 3 students (7.7%) were gypsy and 1 student of Asian descent, represented 2.6% of the sample.

### **2.3. Procedures**

Procedures followed a pretest in both groups. This aimed to evaluate the quality of opinion essays, produced by students. They were asked to write a text based on their own personal opinion on one question that was given. They had 45 minutes to finish this task. All students in the control and experimental group had received instruction on the basis of a simultaneous and guided action. Then the students in the experimental group learned to use SRSD: POW+TREE. Finally, we asked both groups to write again an opinion text guided by another question. The evaluation of opinion essays using a Scale of Quality Assessment Review of argumentative texts (Scardamalia, Bereiter & Goleman, 1982) adapted to Portuguese, by the first author of this study. This rating scale has a minimum score of 1 and a maximum of 11 points. Furthermore, we analyzed the number of connectors and argumentative words present in each of the texts produced by the students, since the literature review shows improvements made to the value of these two variables after the learning of SRSD: POW+TREE.

The quantitative data obtained were analyzed by descriptive and inferential statistics. The reliability of the implementation was evaluated using checklists that were provided to the teacher to confirm the phases and stages set for learning the SRSD: POW+TREE.

### 3. Results and discussion

According to the results of this study:

a) the learning of the strategies POW+TREE seem to have a positive influence in the level of Portuguese language, in the progressive control of the writing techniques and basic rules, as well as in students motivation, autonomy and analyzing capacities in the writing process;

b) after learning the strategies most students (95.4%) said that they had enjoyed learning the SRSD. Only one student did not like to learn the strategies, so that, generally, we can say that students views meet the research result of Graham et al. (2008), that reported the fact that students generally like to learn the SRSD;

c) there were statistical differences between the control and the experimental group at the level of the number of words, and number of transition words both in pre and posttests;

d) concerning the quality of opinion essays, the differences between both groups were observed in the posttest;

e) in the experimental group there were statistical differences, in the number of words, in the number of transition words and in the quality of opinion essays, between pre and posttests;

f) the effectiveness of POW+TREE was found to be associated with mean standardized “effect size” of 0,85 for the number of words, which reveals that the experimental condition is highly effective (Lloyd, Forness, & Kavale, 1999);

g) the effectiveness of POW+TREE was found to be associated with a mean standardized “effect size” of 1,22 regarding the number of connectors which reinforces that the experimental condition is highly effective (Lloyd, Forness & Kavale, 1999);

h) the effectiveness of POW+TREE was found to be associated with a mean standardized “effect size” of 0,63 for the quality of the texts produced by students, which reinforces that the experimental condition is worth to be considered (Lloyd, Forness & Kavale, 1999);

i) in the experimental group we found positive differences obtained between the first and second period in the Portuguese language academic content. This was particularly observed in elementary rules of writing, writing techniques, motivation, autonomy and reflection. Contributing to this fact, according to the literature review is: 1) the use of an explicit teaching of SRSD, with the teacher modeling and using mnemonics; 2) the moments of practice of opinion essays; 3) appropriated reinforcement and 3) the development of auto-instruction, self-monitoring and self-doubt. It seems that the implementation of POW+TREE achieved positive results, and that the intervention had an impact on students. These strategies contributed to the understanding of the constituent elements of this type of text, as well as the importance of connectors in discourse, by the students.

j) The reliability of the implementation in the experimental group, when analyzing all lists of sessions, reached 100%, in each session. It was also confirmed that in the control group the teacher implemented opinion learning.

### 4. Conclusions and future work

This study intended to contribute to the promotion of POW+TREE. Thus, the results emphasize new ways and contexts of use of POW+TREE in the opinion essays among students with SLD or problems in writing and may be the basis for new studies in this area, given the shortage of research in Portugal. Therefore, our milestone to achieve is the study of the contribution of ICT to the quality of opinion essays composing, using POW+TREE, because ICT are powerful and flexible tools for teaching writing (MacArthur, 2006) allowing an interactive (Kleiner, 2007), real (Karchmer, 2001) context, to be used to enhance the writing process of students with and without SLD (Beach & Friedrich, 2006).



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## EARLY INTERVENTION AND FRAGILE X SYNDROME

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### Abstract

The Fragile X syndrome, although not very frequent, is the most common inherited cause of mental retardation and is very often associated with autism spectrum disorders. An early intervention program can improve the developmental process of these children in a very significant way. But it depends on how the health, education and social services organize the Early Intervention system and the answers to the family and child needs. In order to understand how families lived and experienced the early years of their children, with regard to answers and support obtained within the early education and intervention, we conducted a qualitative research focused on the years before school (0-6 years). We studied 39 families of children with FXS, from different regions of Portugal, having been conducted interviews with, and used a Grounded theory approach to data. The findings show that there is a good response at the level of adequacy of the pre-school environment, with relative successful and satisfactory educational inclusion. However, despite being provided a network of Early Intervention that should support these children, there is a notorious lack of availability of these services, in quantity and quality, both for therapies as for family support. The findings emphasize the importance of an earlier functional and etiological diagnosis and the provision of integrated services, adequate to the specific characteristics of these children. That implies multidisciplinary Early Intervention teams and a good connection with preschool services.

**Keywords:** *Early intervention, Fragile X Syndrome, Family centered approach, Genetic syndromes.*

## CHRONOPSYCHOLOGY ASSESSMENT OF THE TYPE OF TIME ORGANIZATION APPLIED IN ALGERIAN SCHOOLS

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### Abstract

The purpose of this study is to make a chrono-psychological assessment of the type of time organization applied in Algerian schools. Comparison was made between the single and double vacation types of school time organization based on a sample of pupils aged between 11 and 12 years. The results of the study highlight the physiological and psychological impact of the two types of school vacation on Algerian pupils. Furthermore the daily and weekly attention levels of pupils in the double vacation type of organization indicate that this type of time organization is well suited for Algerian pupils who seem well adapted to their school time. With regard to the behavior of the two children observed during the study it was found that those in the double vacation type were better adapted to daily school life compared to their peers in the single type of vacation. However during the week it is the pupils in the single vacation type who showed a better level of adaptation. The results also indicate that regardless of the type of time organization and the time of school entrance the subjects showed no troubles with regard to time of sleeping or awaking: Pupils from the two types of time organization slept more than the average time indicated by chrono-psychological research. However it was also shown that the break taken Tuesday afternoon by pupils from the double vacation type - unlike their peers in the single vacation type - had no positive effects, but the break taken in the weekend by all pupils regardless of the type of vacation was useful for since it enabled them to take a rest and overcome their fatigue. With regard to extra-curricular school activities they clearly appear to be the same for all pupils. The lack of adequate school equipment in Algerian schools and even in the whole society does not make it possible to take into account the psychological and physiological rhythms of our children who therefore may experience some psychological problems which in turn may lead to their school failure.

**Keywords:** *School rhythms, Chronopsychology, Chronobiology, School time, Double vacation, Simple vacation.*

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### 1. Introduction

The reform of the education system is a major priority for the overall development policy pursued by Algeria in recent years to keep pace with the deep political, economic and social changes dictated by globalization. In this context, it was necessary to rethink the organization of school time and integrate the concept of school rhythms.

(Testu) states that school rhythms can be understood in two ways: in connection to the rhythms of the environment, the alternation of periods of rest and activity imposed by school or work schedules or in connection with the rhythms of individuals, which are periodic fluctuations in physiological, physical and psychological processes observable in children, adolescents, adults placed in a school situation. The purpose is to harmonize the rhythms of children's lives and school rhythms (Testu & Fotinos, 1996).

Two disciplines have contributed to a better understanding of daily and weekly variations of intellectual activity of a pupil: chronobiology and chrono-psychology (Testu, 1994). The latter allows the study of rhythmicity of the psychological variables of intellectual activity (Testu, 1996).

1) Chronobiology was born in the fifties and the early 'sixties' of the last century. It is defined as the study of the temporal structure of living beings, the mechanisms that control and maintain alterations that may occur" (Reinberg et al, 1994). It proposes "to study quantitative regular and periodic changes of biological processes at the level of cell, tissue, structure, organization or population" (Kleitman, 1949).

2) Chrono-psychology aims "to study the changes in behavior for themselves" (Fraisie, 1980).

Various researches in these two disciplines have shown that all the functions of living beings vary periodically which makes them predictable in time (De leval, 1982). Research conducted (Halberg, 1959, 1960; Reinberg & Ghata, 1964 Buning, 1964; Aschoff, 1965, Halberg & Reinberg: 1967) show that rhythmic activity is a fundamental property of living matter (Reinberg, 1994). These studies reject the dogma of homeostasis, "which means all biological phenomena by which a body tends to keep its variation within limits compatible with life" (Montagner, 1996).

## 2. Research question

From the various studies conducted in various European countries arises the question of their compatibility with the educational system in Algeria. Little research has been done on this area (Marouf, 2007, 2008, 2010, 2011). How can conclusions and advantages be drawn in order to implement them in the improvement of the performance of the Algerian educational system? What are the patterns of daily and weekly variations in the attention and behavior of pupils enrolled in the two models of organization of school time in primary school in both models: double vacation and simple vacation? What is the evolution of the average duration of nocturnal sleep during the week? What are the extra-curricular activities of pupils in both models of school time organization?

In order to conduct this study, it is first required to identify six parameters: type of research, sample selection, tools and investigative techniques, data collection, statistical analysis of data, methodological limitations of this research.

## 3. Type of research

This study is a descriptive study, based on the methodology adopted by TESTU when evaluating the organization of school time in France (Testu, 1994, 1999, 2003). This research proposes an evaluation of chrono-psychological organizational arrangements of school time in the Algerian school. It differs from experimental studies that refer to the control groups and other experiments. Thus, even chrono-psychological assessment in schools is rare for two reasons. Firstly, at the methodological level, it raises the problem of neutralizing learning accompanying the repeated tests. Secondly, at an ethical level, school cannot be turned into a laboratory (Testu, 1996).

## 4. The selection of the sample

The subjects of this study were selected based on several criteria:

1. *The appartenance to one of the two models of school time organization, i.e. simple vacation and double vacation:* the two models of school time organization chosen for the purposes of this study host a comparable population at the chrono-psychological, chrono-biological and sociological levels. The population shares the same characteristics; the five selected schools are located in an urban area, pupils are from the same age, and school runs 6 days per week but the daily distribution of hours is different.

The choice of school time organization model in Algerian schools complies with certain infrastructure requirements and supervision, this is why both models: single vacation and double vacation are implemented.

- Terms of single vacation: the proposed-imposed timetable is the same for all pupils in the same school, i.e.: from 8am to 11: 30 am and 13: 00-15: 00 pm.

- Terms of double vacation: the proposed-imposed timetable differs from one session to another, pupils have the first vacation during the first two days of the week is Saturday and Sunday from 8: 00 to 10: 00 am and 13h: 00 to 15: 00 pm whereas pupils in the second session have classes from 10h: 00 to 12h: 00 am and 15h: 00 to 17h: 00 pm. This order will be reversed. Twice a week the pupils have classes during half a day, either Monday morning or Thursday

afternoon for the first session or Monday afternoon and Thursday morning for the second session.

#### 4.1. Sample

The sample of this research consists of a total of 189 pupils, including 38 pupils in double vacation and 151 pupils in single vacation. The average age is 12 years and 7 months for the two models of school time organization.

*Independent and equivalent groups* divided into four groups according to random schools and models of school time organization by dividing the total sample which is 189 by 4 and the list of subjects is drawn at random from the list sent by the teacher.

- Tools and techniques: Four factors and four techniques are considered in this research:

1. Levels of attention and mental performance and possible daily and weekly fluctuations using a test that consists of 4 barrage tests.

2. Behavior in classroom was observed using an observation checklist to make comparisons between schools that include times of the day interspersed in a sequence of 10 minutes of rest and other observations. Observed behaviors represent an index of detachment from the school situation, they consist of indicators of low arousal and hyper-activity indicators:

· *Indicators of low arousal*: yawning, stretching, rubbing eyes, lowering, daydreams.

· *Indicators of hyperactivity*: unrest, unexpected displacement, lack of response to stress.

3. Sleep factor was studied using a questionnaire to parents about their 11 old children about bedtimes, wake up, and wake up during the nights of the evaluation period.

4. The extra-curricular activities were assessed using a questionnaire to 11 and 12 years old pupils in class.

#### 5. Results

This study was designed to compare two models of school time organization in Algeria. The results obtained in this research show the influence of the proposed-imposed model on the physiological and psychological factors in Algerian pupils.

Comparing the performance of daily attention in both models, two opposed profiles are observed among pupils enrolled in double vacation and single vacation. This difference shows that the double vacation model is more respectful of the biological rhythms of children since its variation profile conventional when compared to the simple vacation model. This difference is significant, which confirms the first hypothesis that the performance of attention varies according to the school time organization model.

Regarding profiles of weekly changes of attention among pupils enrolled in double vacation and pupils enrolled in single vacation, scores differ from one form of organization to another, but for both models, Saturday appears as a day of low performance. The second day of the week is the day of good results for pupils enrolled in double vacation against Tuesday, the 4th day of class that registers the highest performance of pupils in single vacation. The negative effect of the weekend is sensitive in both models. The difference between the two models is not significant. Therefore, the second hypothesis is not accepted i.e. the weekly variations of attention is not dependent on the form of school time organization.

For pupils enrolled in double vacation, it would appear from the results obtained in psychometric tests that they are better adapted both on a daily and a weekly basis. Daily classic curve shows positive adaptation of children in this model. The same characteristics of the traditional week released by TESTU research are observed at weekly rate: poor results on Saturday the first day of the school week, a rehabilitation day which is Sunday and good results on Tuesday and Wednesday.

Observed behaviors among pupils enrolled in double vacations show a high agitation behavior profile along the school day with a peak at the 4<sup>th</sup> quarter (15h-17h) and lower agitation profile at the 1<sup>st</sup> quarter (8am-10am). However, non-arousal behavior profile shows rather stable averages throughout the school day. On the opposite side, behavior among pupils enrolled in single-vacation shows a high agitation behaviour profile during the first quarter and the last quarter of the day with a decline in the second quarter. The same pattern is observed for

non-arousal behavior that starts and ends with a major average lower than in the middle of the school day.

Regarding the weekly agitation, agitation behaviors are highly important in comparison with the non-arousal behavior during the assessment week for pupils enrolled in double vacation. Behavioral agitation profile shows a significant rise in the first two days of the week with a peak on Saturday and a slight decrease on Sunday. The last two days of assessment, i.e. on Tuesday and Wednesday recorded a low average. On the opposite side, the profile of non-arousal behavior shows different average every day throughout the school week, the average behavior observed on Saturday are higher, then it drops on Sunday to reach the lowest level on Tuesday. Wednesday recorded the largest average behavior of non-arousal.

Agitation behaviors are highly important in comparison with the non-arousal behavior during the assessment week for pupils enrolled in single vacation. The profile of the average behavior of agitation shows fluctuations the first two days of the week, especially a rise on Saturday and a fall on Sunday. The last two days of assessment which are Tuesday and Wednesday have shown similar variation with an increase on Tuesday and a decrease on Wednesday. However, non-arousal profile shows similar averages almost every day throughout the school week, the average behavior observed on Sunday is higher than the one observed on Saturday. Tuesday records a decrease and Wednesday records the lowest level.

There is a significant difference between the daily average indices of detachment in the educational situation of double vacation in comparison with the average indices of the simple vacation, thus the third hypothesis which states that daily variations behaviors observed in the classroom vary depending on the type of school time organization is accepted. Thus, in terms of the overall daily average index of double vacation in comparison with that of the simple vacation, we concluded that pupils enrolled in double vacations seem to better adapt to the situation during the school day.

On the week, there is also a significant difference between the weekly average indices of detachment in the educational situation of double vacation in comparison with the average indices of the simple vacation which brings us to retain the 4<sup>th</sup> hypothesis which states that weekly behaviors changes observed in classroom vary depending on the type of school time organization. Thus, in terms of the overall weekly average index, double vacation in comparison with that of the simple vacation, we conclude that the pupils enrolled in single vacation seem to adapt better to the situation during the school week.

Curves of nocturnal sleep are different from one model to another. The profile reveals a high amount of sleep that far exceeds the average generated by Testu research. Children constant tiredness throughout the school week is mainly due to the daily and weekly load and their continued presence throughout the week (06 school days). Cut in the middle of the week does not allow children of the two models to recover and repair physical fatigue. However, it has helped to reduce their sleep times. The compensation for sleep deficit registered during the week take place during the weekend. Children in both models benefit from rest and increase the duration of nighttime sleep. The differences in the profile of the average duration of sleep are significant in the two models which reinforces the hypothesis that the average duration of nocturnal sleep changes during the week depending on the model of school time organization.

Results on extra-curricular activities in school children in single and double vacations reveal similarities between both models. Children in both cases have education activities only inside the school (lack of rooms, catering or leisure services within the school ...). The vacuum created because of the poverty of the activities proposed by the Algerian society and the school makes children in both models more bored which disturbs them greatly. In the same context, children in both models watch lot of TV and become major consumers during the school day or days without classes. In view of the results and similarities between children's school life in both models, we reject the 6<sup>th</sup> hypothesis according to which extra-curricular activities differ depending on school time organization model. The lack of extracurricular activities in school makes contact with the Algerian school more difficult regarding agitation behavior observed among pupils in the two models. The poor results at the psych-technical test reveal the failure of children in both models at a task and denotes the disruptions of the duration of their nighttime sleep.

Finally and as general conclusion, the daily and weekly performance of children in double vacation reflects a classical rhythmicity which shows an adaptation of this timetable to the child's life. Regarding the study of behavior, we conclude that pupils enrolled in double vacation adapt better to the school situation during the school day. However, during the school week, pupils enrolled in single vacation seem to adapt better to the school situation. In both models of time organization: single or double vacation, regardless of the school entrance time, children's wake-sleep rhythm is not disturbed. Children in both models sleep more than the average established by Testu chrono-psychological research. However, the effect of the half-day break during the school week is not beneficial for pupils in double vacation unlike pupils in single vacation. The weekend break allows compensating for fatigue at the end of the week for children of both models. Regarding the extra-curricular activities, we noticed similarities between the two methods proposed-imposed on Algerian children. The lack of adequate educational infrastructures within the Algerian school and society inhibits the development of the child and respect for his physiological and psychological rhythms. Instead it contributes to psychological imbalance and leads to school failure.

At the end of this research, it appears that the work undertaken in various European countries conducted in chrono-psychological school can answer questions relating to school rhythms and their applicability in the educational system in Algeria. Thereby improving the performance of the education system Algerian necessarily entails respect for the biological and psychological rhythms of Algerian children by providing schedules best suited to their physiological and psychological requirements. It is imperative to consolidate chrono-psychological research in the Algerian environment to offer an educational policy that can reduce the dropout rate in the Algerian educational system.

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## PERFECTIONISM AND SCHOOL PERFORMANCE IN CHILDREN

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### Abstract

Perfectionism is a multidimensional construct ranging from a positive to a negative pole. Past studies have shown that positive perfectionism is linked to a better school performance, where as, negative perfectionism is often associated with social and emotional difficulties such as anxiety, depression and lower self-esteem. However, most studies have been realized with a population of gifted children, which might not be representative of the general population. Thus, the current study aimed to investigate the associations between negative perfectionism and the performance in reading and mathematics in children from regular classroom who are applying to an international schooling program. Convenient sample of the study consist of 140 sixth-grade children, aged 10 to 12 who completed a mathematics and reading tests, as well as 3 subtests of the Cheney-Daigle's, intellectual quotient's test. Positive and negative perfectionism were measured with the *Échelle de Perfectionnisme Positif et Négatif*, a French version of the *Positive and Negative Perfectionism Scale*. Correlation analysis has shown that a high score on the negative perfectionism scale is linked to a lower performance in mathematics, reading and on 3 IQ subscale tests. One possible explanation of these results may be that negative perfectionism increased the level of anxiety when confronted with evaluation, thus altering their performance. Also, considering the fact that most tests are usually administered under time limits it may be hypothesized that children with negative perfectionism may spend too much time on the first questions in a test, and do not have enough time to complete all the questions. These results are important since negative perfectionism seem to affect negatively the performance in mathematics and in reading and thus, may lead to negative long term outcomes such as drop out. They also indicate the importance to intervene among those children in order to provide them emotional support and teach them coping skills that would help them manage the emotional distress that is associated with negative perfectionism. Similarly, these findings highlight the significance of developing the research on perfectionism given the numerous implications on school performance or other variables in school setting.

**Keywords:** *Perfectionism, Children, School performance.*

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### 1. Introduction

Perfectionism is a multidimensional construct and is often conceived as a personality trait, mainly characterized by an excessive need in meeting high standards, striving for flawlessness and accompanied by harsh self-criticism (Flett & Hewitt, 2002; Hewitt & Flett, 1991a, 1991b). Literature on perfectionism tend to illustrate two main conceptualizations, a dimensional and a categorical conception (Stoeber & Otto, 2006). Slade and Owens (1998) proposed a dualistic model comprising of two types of perfectionism. Their conceptualization is derived from the principles of reinforcement theory and they postulated that perfectionism can be negative and positive. Negative perfectionism is driven by the fear of failure and avoiding behaviours, thus resulting in negative reinforcement. Positive perfectionism is described as the desire to attain success and this translates into approaching behaviours to success, which in fact consist of a positive reinforcement. Terry-Short and colleagues (1995) proposed the positive and negative perfectionism scale (PNPS) which aims to capture both negative and positive aspects of perfectionism, in regards to both personal and social dimensions which are captured by both subscales, self-oriented perfectionism and socially prescribed perfectionism. Both positive and negative aspects of perfectionism have been associated with different outcomes. For example, negative perfectionism has been associated with anxiety, eating disorder conducts and depression (Kawamura, Hunt, Frost, & DiBartolo, 2001; Terry-Short, 1995; Turgeon, Forget, & Sénécal, 2011). Positive perfectionism has been associated with better outcomes such as a greater satisfaction with life, greater satisfaction with interpersonal relationships, higher level of



motivation and better academic achievement (Accordino, Accordino2, & Slaney, 2000; Gilman & Ahsby, 2003; Stoeber & Rambow, 2007). To our knowledge, most studies have been realized with undergraduate students or a population of gifted children, which might not be representative of the general population. Thus, the current study aims to investigate the associations between negative perfectionism and the performance in reading and mathematics in children from regular classroom who are applying to an international schooling program.

## 2. Methods

Participants consist of 140 French children, aged 10 to 12, who are in 6<sup>th</sup> grade. To assess their academic performances, children completed mathematics and reading tests, assessing skills from the regular curriculum of the Québec province's government, as well as 3 subtests (similarities which aims to measure abstraction; blocks and construction which measure visual-spatial skills) of the Chené-Daigle's, a French intellectual quotient's group test. Positive and negative perfectionism were measured with the *Échelle de Perfectionnisme Positif et Négatif* (2002), a French version of the *Positive and Negative Perfectionism Scale* (Terry-Short, 1995).

## 3. Analysis

Pearson's correlation coefficients are calculated for all five assessments. Based on the result, partial correlations are made between negative perfectionism and reading and between negative perfectionism and mathematics, controlling for IQ.

## 4. Results

Table 1 shows the result for all correlations.

**Table 1:** *Correlation between reading, mathematics, IQ, positive and negative perfectionism assessment*

	Reading	Math	IQ	PP	NP
Reading	1	0,384***	0,397***	0,054	-0,246***
Math		1	0,512***	0,087	-0,257***
IQ			1	0,012	-0,213**
PP				1	0,460***
NP					1

\*p < 0,05 \*\*p < 0,01 \*\*\*p < 0,001

Mathematics and reading show a significant positive medium correlation ( $r = 0,384$ ,  $p < 0,001$ ), as for reading and IQ ( $r = 0,397$ ,  $p < 0,001$ ). Mathematics and IQ show a positive high correlation, which is expected ( $r = 0,512$ ,  $p < 0,001$ ). Positive perfectionism does not show correlations with other assessment, except for a positive medium correlation with negative perfectionism ( $r = 0,460$ ,  $p < 0,001$ ). Negative perfectionism show negative low correlation with reading ( $r = -0,246$ ,  $p < 0,001$ ), mathematics ( $r = -0,257$ ,  $p < 0,001$ ) and IQ ( $r = -0,213$ ,  $p < 0,01$ ).

Table 2 shows the results for partial correlation between negative perfectionism and reading, using IQ as control.

**Table 2:** *Correlation between negative perfectionism and reading and correlation between negative perfectionism and mathematics, controlling for IQ*

	<b>Correlation</b>	<b>t</b>
NP and reading	-0,180	2,143*
NP and math	-0,177	2,102*

\* $p < 0,05$  \*\* $p < 0,01$  \*\*\* $p < 0,001$

After controlling for IQ and positive perfectionism influence, the correlation between negative perfectionism and reading ( $r = -0,180$ ,  $p < 0,05$ ) and the correlation between negative perfectionism and mathematics ( $r = -0,177$ ,  $p < 0,05$ ) are significant.

## 5. Discussion

In this study, we aimed to assess the link between academic performance and perfectionism in a sample of children aged from 10 to 12 years old. Our results showed that a high score on the negative perfectionism scale is linked to a lower performance in mathematics, reading and on 3 IQ subscale tests. One possible explanation for these results is that those tests were administered under time limits and it might be hypothesised that negative perfectionist students do not manage effectively their time. For example, Klibert and colleagues (2005) showed that individual who tend to have a more positive type of perfectionism possessed effective time management skills compare to others. Further studies should investigate this link among children since it could lead to important clinical interventions such as time management skills strategies interventions. Another possible explanation of these results may be that negative perfectionism increased the level of anxiety when confronted with evaluation, thus altering their performance.

The current study has some limitations. First, for perfectionism only, our analysis is based on self-report responses only, which might be subject to social desirability especially that the respondents were in an assessment context for their future high school admission. Second, we have no measure of stress and anxiety. Finally, we used a correlational approach, which can not infer causality. Further longitudinal studies should examine the link between academic performance and perfectionism.

In conclusion, our study shed light on some of the negative outcomes which accompanied negative perfectionism, and which may eventually lead to drop out. It also indicated that it is of importance to intervene among those children by teaching them appropriate coping skills to help them manage the emotional distress and negative outcomes that often accompanied negative perfectionism. Finally, our results shared additional support for a dualistic model comprising of positive and negative perfectionism.

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## A GENERAL OVERVIEW ON PARENTAL EMOTIONAL SOCIALIZATION BEHAVIORS

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### Abstract

Denham, Mitchell-Copeland, Stranderberg, Auerbeck & Blair (1997) define that parental behaviors are predictors of emotional and social competences of children, and they state that parents have a substantial role for the socialization of children, as well. Therefore, this study is focused on parental socialization behaviors, and more specifically this study has evaluated the emotional socialization of parents by considering the emotional competence of children, and an explanatory perspective has been tried to be established with other relevant parental characteristics such as parental goals and practices. Upon explaining the parental emotional socialization behaviors, firstly parental styles, basic concepts, affecting the developmental outputs, as well as the relation between a parent and child (Grolnick, Bridges, & Connell, 1998) have been based. On the other hand, when acted the fact that parental emotional socialization refers to more specific emotion-related behaviors of parents rather than general disciplining styles and parental responses (Denham, et al., 1997), it is obvious that more detailed explanation of parents for emotional socialization. Within this framework, emotional socialization behaviors of parents have been defined in detail and emotional socialization processes/mechanisms have been defined based upon the hypotheses in the literature such as modeling, coaching, parent responses and meta-emotion philosophy. In this stage, how parents respond to children's negative emotions is an important pathway to socialize children's emotional competence (Eisenberg, Cumberland, & Spinrad, 1998) is underlined under the title of contingency hypothesis. The reactions of parents for the negative emotions of children are specifically explained within the scope of supporting and non-supporting reactions with samples. In this study, Le Vine's parental model has been considered for explaining how parental socialization aims and applications affect the emotional socialization behaviors and emotional competence. This study ends with stressing out the significance of emotional socialization behaviors of parents with other parental characteristics as well as with the other factors possibly affecting or contributing to the socialization behaviors. Culture a conceptual factor affecting the socialization of parents' emotions (Kagitcibasi, 2007), complementary behaviors of the family members interns of theory system perspective (Parke & Bruiel, 1998), and within the framework of gender effect and socio-economic level of a family in some certain models have been evaluated in discussion part by considering the emotional competence. In summary, in this study parental socialization behaviors and some relevant themes have been tried to be explained in general concept.

**Keywords:** *Parental emotional socialization, Parental emotional socialization processes/mechanisms, Emotional competence.*

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### 1. Introduction

Denham, Mitchell-Copeland, Stranderberg, Auerbeck, and Blair (1997) define that parental behaviors are predictors of emotional and social competences of children, and they state that parents have a significant role for the socialization of children. Characteristics of parents and the quality of their parent-child relationship are among the most substantial resources that affect the developmental outcomes of children (Grolnick, Bridges, & Connell, 1998). Baumrind (1970), Maccoby and Martin (1983) described the global parenting characteristics with respect to warmth/responsiveness and control of parents as: authoritative, authoritarian, permissive and rejecting-neglecting parenting style. In order to understand the processes through which the parenting style influences child development, three aspects of parenting put forward by Darling and Steinberg (1993). These are; goals toward which socialization is directed, the parenting practices used by parents to help children reach those

goals; and the parenting style, or emotional climate within which socialization occurs. They stated that parenting style is most usefully conceptualized as a characteristic of the parent that changes the efficacy of the parent's socialization efforts by moderating the effectiveness of particular practices and by altering the child's openness to socialization. Therefore, the influence of parenting styles varies depending on the social environment in which the family is embedded. Kagitcibasi (1970) found that authoritarianism was related to higher control in the Turkish culture. Chen and Luster (2002) stated that authoritarian parents could be identified as warm and caring in Chinese culture. These findings can be interpreted as the parenting style does not apply to all cultures. Hence, as proved earlier by some researchers (Paterson & Sanson, 1999); investigating parents' socialization behavior in emotional and social fields was shown to have been very important in explicating the effects of parents on child development.

## **2. Design and Objectives**

The current study is a theoretical review study. The goal of this study is to provide an illustrative framework for summarizing and synthesizing derived from a growing body of studies on parental emotional socialization and processes with regard to emotional competence. An explanatory perspective has also been tried to be constituted that parental goals and practices have effects on socialization and emotional competence. In addition, culture, complementary behaviors of family members, gender of child and socioeconomic level of family is discussed briefly.

## **3. Review of Literature**

The socialization process begins during the early stages of development and continues throughout one's life time. With regard to children's socialization of emotion, the specific parental behaviors that are directed toward children's emotions are named emotion-related socialization behaviors (Eisenberg, Cumberland & Spinrad, 1998). According to Gottman, Katz, and Hooven (1996) parental emotional socialization behaviors indicate to parent's maladaptive and adaptive ideas, emotions and approaches to children's emotions. In broad terms, parental socialization of emotion includes beliefs, goals and values of parents concerning children's experience, expression, and modulation of emotion (Eisenberg, et al., 1998). Specially, parental emotion socialization refers to the parental awareness of child's emotions, parents' admittance of the child's emotions, and the degree to which parents procure instruction to the child on managing his/her emotions (Gottman et al., 1996). It refers to more specific emotion-related behaviors of parents rather than general disciplining styles and includes parental behaviors like modeling, coaching and contingency (Denham, 1998). One process of emotion socialization occurs through modeling. Children learn about emotions, when and where to display them, by watching others' emotional displays (Denham & Grout, 1993). Adults' emotional expressions, responses to their own and others, emotions and their emotional coping styles provide models of emotional behavior for the child to imitate (Rhee, 2007). A second emotion socialization process coaching is characterized by parents who attend to emotions in themselves and in their children, consider their children's negative emotion as an occasion for strengthening the parent-child relationship, as an opportunity to establish sincerity with children, and problem solve with their children by discussing strategies for managing the situation that caused the negative feelings (Gottman et al., 1996). According to contingency hypothesis, as a third mechanism, children learn a great deal about emotions from how others' react both verbally and nonverbally to their own emotional displays (Fabes, Poulin, Eisenberg & Madden-Derdich, 2002) and parents' behavioral and emotional responses to their children's emotions also help the children in differentiating among emotions (Denham, 1998). Tomkins' (1991, as cited in Denham, 1997) theory regarding the socialization of emotions suggests that there are rewarding and punitive contingencies that contribute to emotion socialization in children. Parental responses were conceptualized via parental control and permission in previous studies (e.g. Saarni, 1989).

Although parental control and permission has discussed a substantial part of parental behaviors, Eisenberg and Fabes (1994) suggested that parental responses to children negative

emotions have been overlooked. How parents respond to children's negative emotions is an important pathway to socialize children's emotion understanding, regulation and expression (Eisenberg et al., 1998). Eisenberg and Fabes (1994) identified two aggregations of parental socialization responses to children's negative emotions (PRCNE): a) supportive PRCNE, which include emotion-focused responses, problem-focused responses, and encouraging emotion expression, b) unsupportive PRCNE, which include punitive and minimizing reactions. Supportive PRNCE involve parents' responses reflect to guide and to teach children about emotions (coaching). Parents who cope with children's negative emotions in supportive ways contribute positively to the development of children's social and emotional competence (Eisenberg, Fabes, Schaller, Carlo, & Miller, 1991). On the contrary, nonsupportive responses are those that discourage the child from experiencing and expressing emotions, and thereby are unhelpful in teaching the child to cope with and manage emotions (Kitzmann & Howard, 2011). Some researchers, (e.g. Gottman et al., 1997), have added a fourth factor called "meta-emotion philosophy", specifically named as the adult's "emotions about emotions". The processes of adults' being comfortable in their own and others' emotions, also their beliefs about acceptable ways to express and cope with emotions, their success in helping their children to be emotionally competent were all thought to have contributed to emotion socialization. Protecting the child, providing for the child and preparing the child to be an adult member of the society were addressed as the prevalent parenting goals among different cultures. These universal goals would be helping the child to acquire general skills in emotion competence (LeVine, 1988). In LeVine's model emotion socialization parenting practices change by culture and reflect culturally based emotion-related values and beliefs (Eisenberg et al., 1998). The psychological literature puts forward an additional emotion socialization and culture perspective focusing on the processes by which adults' goals and practices shape the competence of the child. This perspective includes adults' responses to emotion, modeling, teaching, and the influence of meta-emotion philosophies. These would be argued to have been universal emotion socialization processes influencing children's emotional competence. Children's emotional competence is shaped by how adults respond to children's emotions, model emotion-related behaviors, teach children emotion-related skills, and express their own attitudes about emotion. When integrating LeVine's model with the additional perspective, considering the effect processes as a mediator between universal goals and culture specific practices, is one of the ways (Kitzmann & Howard, 2011).

#### 4. Discussion and Conclusion

Although parents' responses to their child's emotional behavior are considered a central mechanism of socialization, it is stated that socialization styles, goals, practices and responses of parents are entitled as a whole, as "parental qualifications" (Coplan, Hastings, Lagace-Seguin, & Moulton, 2002). It also is stated that within the framework of social norms, these qualifications are thought to be utilized as a contribution to the developmental process of children (Collins & Maccoby; Steinberg, Hetherington & Bornstein, 2000). According to psychocultural approach cultural contexts plays a role in creating person's identity and the interaction of child, parent and society affect children's developmental process (Saarni, 1999). However, parental socialization proves mostly came from Western samples and it is unclear whether these findings can be generalized to other cultures (Tao, Zhou & Wang, 2010). When viewing socialization from a family system perspective, maternal responses to children's emotions should be examined in complementary behaviors of other caregivers. For instance, one parent's supportive response to his/her child's distress may have different implications for the child's emotional understanding depending on whether the other parent shows a similar or dissimilar reaction (White & Klein, 2002; McElwain, Halberstadt, & Volling, 2007). Theories also state that parents socialize girls' and boys' emotional competence based on cultural gender roles (Parke & Buriel, 1998). For instance, young girls and boys are encouraged to express their emotions based on their gender. Cultural gender roles and stereotypes also affect child adjustment (Tao, Zhou, & Wang, 2010) and children's coping strategies (Brody & Hall, 2000). Another important consideration in research on emotion socialization, emotion competence is

the role of socioeconomic status of the family. According to family stress model parents living in poverty face with crucial socioeconomic stressors (Conger & Dogan, 2007) and they have been found to indicate less responsive and more punitive parenting styles (Bradley, Corwyn, McAdoo, & Garcia, 2002). Mayer (1997) state that there is no relationship between family income, parental profession, socialization behaviors, highlight parental health, personality characteristics and social skills of parents. It is significant to note, also, that there is variability in parenting quality and emotion socialization among families living in metropolitan cities. Magee and Roy (2008) denote that parents encounter more stress and they have to manage with more psychological and physical health problems in 21<sup>st</sup> century. Hereby, other significant adults in children's emotional socialization are also important. For instance, teachers are admitted as key socializers as a way of demonstrating new skills, providing different and interesting materials, and developing emotional bonds with children in classrooms (Denham, 1998). Therefore, emotion competence can thus be seen as a crucial educational goal and teachers's socialization of emotion also can be examined in different cultures.

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# FAMILY UNPREDICTABILITY AND SOCIAL SUPPORT REPORTED BY FAMILIES IN EARLY INTERVENTION PROGRAMS VERSUS COMMUNITY FAMILIES

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## Abstract

Family unpredictability has been associated with dysfunctional family functioning and with development and behavior problems in children. On the other hand, the presence of social support relations has been associated with positive effects on parenting, particularly in families at risk. We examined in this study the relationship between perception of *family unpredictability* and *social support*, in families in early intervention (N = 60) and community families (N = 100), both with children between 2 and 6 years. The parents filled out the Portuguese version of the *Family Unpredictability Scale* – FUS (Gaspar & Alarcão, 2003), and the Portuguese version of the *Family Support Scale* – FSS (Coutinho, 1999). The mean values of perceived unpredictability was higher in families in early intervention programs, and caregivers of these families reported greater appreciation of the usefulness of formal sources of social support. Reported family unpredictability declines with increased perceived social support, and there is an effect of educational level in both groups (higher education is associated with lower reported unpredictability). Data suggest guidelines for interventions to be implemented in early intervention programs to at risk families with young children.

**Keywords:** *Family unpredictability, Social Support, Early intervention, Young children.*

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## 1. Introduction

Family unpredictability, understood as the lack of consistency in patterns of family behavior, has been associated with family dysfunction as well as a maladaptive functioning in its individual members (Alarcão & Gaspar, 2007; Ross & Hill, 2000). According to Ross and Hill, “family unpredictability occurs when members are unable or unwilling to consistently fulfill their familiar responsibilities, such as providing nurturance (e.g., affection and sustenance). Family unpredictability also occurs when regulatory systems or mechanisms for maintaining expectations break down (e.g., rule violations go unpunished).” (2000, p. 549).

The concept of family unpredictability is based simultaneously on *attachment theory* (Machado, 2007, 2009), and on theory of *learned helplessness* (Hunziker, 2005; Overmier, 2002). Ross and Hill argue that children who grow up in an uncontrollable and unpredictable environment are likely to incorporate their experiences into a belief system that the world is basically seen as unpredictable (beyond control), which has been associated with lower mental health, or problems behaviors (Ross & Wyne, 2010).

Families characterized by greater unpredictability are more likely to experience fewer family routines, less emotional involvement among its members, greater role confusion, more deficient communication patterns and problem solving skills, higher levels of inconsistency in affection and discipline and greater parental disagreement (Burnett, Jones, Bliwise, & Ross, 2006; Ross & Hill, 2000; Ross & McDuff, 2008). Many studies focused on the impact of family unpredictability in children have pointed that live in a chaotic family is associated with poor functioning translated often in emotional, behavior and attention problems, substance abuse and adopting a larger number of risk behaviors (Dwairy, 2010; Hill, Jenkins & Farmer, 2008; Ross & Hill, 2000, 2002; Ross & McDuff, 2008).

In the other hand, the presence of relationships of social support has been associated with positive effects on parental roles, particularly in families at risk (social and/or psychological). Satisfaction with social support (the perception of support as being available when needed and the recognition of its importance) by households may have an impact on

family functioning, particularly with regard to parenting behaviors. The support that parents receive during interactions with members of their support network may have an impact on their behavior, knowledge, attitudes and expectations, reflected in a positive way not only in the functioning of the family but also in child development (Dunst, Trivette & Deal, 1988).

In the field of early childhood intervention, the adoption of ecological, systemic and transactional perspectives encourage programs centered in social support given to the family. Following the suggestion of Dunst and colleagues (Dunst et al., 1988), current programs emphasize the importance of strengthening family functioning, providing resources targeted to the needs of the family and empowering caregivers to parenthood. Considering the importance of early intervention services for families at risk, the analysis of perception of family unpredictability and social support may contribute to planning interventions targeted to the needs of referenced families.

## 2. Objectives

With this study we pretend describe levels of unpredictability of families with children in early intervention programs vs. community families; analyze their perceptions of the availability and usefulness of social support from formal and informal social networks; explore the relationships between perceived social support and the degree of family unpredictability; understand the influence of socio-demographic variables, namely, the education level, marital status and number of children, in family unpredictability and perceived social support.

## 3. Methods

### 3.1. Participants

Two groups of families with children between 2 and 6 years: families supported by early intervention services in the district of Coimbra (ANIP and APPACDM) (N = 60) and community families (N = 100).

### 3.2. Measures

*Portuguese version of Family Unpredictability Scale (FUS)* (Gaspar & Alarcão, 2003) – Self-reported questionnaire directed to parents (or substitutes) of children and youth aged 2 to 18 years. Composed by 22 items, assesses the perceived unpredictability by the respondent in four areas: discipline (unpredictability in establishing and maintaining rules); nurturance (inconsistent responsiveness to the needs of the child); meals (inconsistency in the time and people who share meals); money (financial instability) (Alarcão & Gaspar, 2007). Items are rated on a *Likert* scale of 5 points. Higher scores reflect greater unpredictability.

*Portuguese version of the Family Support Scale* – a 19 item self-report measure, rated on 5 point *Likert* scale (Coutinho, 1999) – Assesses parental (or primary caregiver) satisfaction concerning perceived social support in the concrete situation of caring for a child. Provides information on the size/availability of the respondent's social network as well as their perception of the degree of usefulness of various sources of support (formal and informal).

### 3.3. Results

#### 3.3.1. Family unpredictability

The sample of families in early intervention shows greater unpredictability in financial domain (M=2.2), followed by affection (M=2.02). The domain with lowest reported unpredictability is the meals subscale (M=1.81) (Table 1). Community families follow a similar pattern showing higher unpredictability levels in finances (M=1.99) and less family unpredictability in meals subscale (M=1.66) (Table 2).

**Table 1:** Minimum, maximum, mean and standard deviations for the group of families in *early intervention*

	N	Min.	Max.	M	SD
<b>FUS Total</b>	60	22	73	43.73	13.329
<b>Mean Fus Discipline</b>	60	1.00	3.29	1.95	0.676
<b>Mean FUS Nurturance</b>	60	1.00	3.57	2.02	0.701
<b>Mean FUS Meals</b>	60	1.00	4.00	1.81	0.749
<b>Mean FUS Money</b>	60	1.00	4.00	2.20	0.901

**Table 2:** Minimum, maximum, mean and standard deviations for *community* families

	N	Mi.	Max.	M	SD
<b>FUS Total</b>	100	23	64	39.08	9.951
<b>MeanFus Discipline</b>	100	1.00	3.85	1.76	0.583
<b>MeanFUS Nurturance</b>	100	1.00	4.00	1.77	0.639
<b>Mean FUS Meals</b>	100	1.00	3.40	1.66	0.536
<b>Mean FUS Money</b>	100	1.00	4.00	1.99	0.842

Community families' sample presents lower means scores of family unpredictability than families in early intervention (for the total scale and subscales). However, Mann-Whitney test showed that the differences were statistically significant only for *nurturance* ( $U = 2298$ ,  $W = 7348$ ,  $p = 0.013$ ). Families in early intervention are more inconsistent in nurturance than community families.

We sought to understand whether socio-demographic variables such as marital status, level of education and number of children relate to family unpredictability. Considering all participants in the study ( $N = 160$ ) an effect of educational level on overall family unpredictability and subscales was observed. Unpredictability decreases the higher the level of parental education. There was no significant effect of marital status of respondents in levels of family unpredictability; also there were no associations between the number of children and levels of unpredictability reported by families.

### 3.3.2. Social support

In families in early intervention (Table 3) the utility of perceived support from formal sources is significantly higher than the utility attributed to informal sources of support ( $Z = -6673$ ,  $p = 0.000$ ). In community families (Table 4) were not significant differences between means of usefulness attributed to formal and informal sources of support. The means of two groups show significant differences between them: both groups perceive support from formal support networks as most useful, being the families in early intervention that recognize higher utility to this type of support (differing significantly from families in the community ( $U = 1094.5$ ,  $W = 6144.5$ ,  $p = 0.000$ )).

**Table 4:** FSS: Minimum, maximum, means and standard deviations in early intervention families

	N	Min.	Max.	M	SD
<b>FSS Total</b>	60	24	60	37.85	7.548
<b>Mean FSS Informal</b>	60	1.08	3.67	2.11	0.544
<b>Mean FSS Formal</b>	60	1.20	5.00	3.57	0.754

**Table 5:** FSS: Minimum, maximum, means and standard deviations in community families

	N	Min.	Max.	M	SD
<b>FSS Total</b>	10	12	68	36.11	11.56
<b>Mean FSS Informal</b>	10	1.29	3.69	2.30	0.595
<b>Mean FSS Formal</b>	10	1.00	5.00	2.48	0.956

No significant differences were detected between marital status, education level, and number of children and the utility attributed by families to sources of social support.

### 3.3.3. Relations between social support and family unpredictability

Considering all participants (N=160), Spearman coefficients for the relationship between social support and family unpredictability, shown statistically significant between the degree of usefulness attributed to informal support networks and total FUS ( $\rho = -0.246$ ), discipline ( $\rho = -0.238$ ), nurturance ( $\rho = -0.172$ ) and meals ( $\rho = -0.192$ ). The correlation coefficients are shown all negative indicating the direction of the relationship. Despite its significance, coefficients should be considered low (between 0.20 and 0.40) and even insignificant values (less than 0.20).

## 4. Conclusions

Unpredictability has been identified as an indicator of the vulnerability of the family and its individual members. Growing up in a family system where the events and interactions are unpredictable and uncontrollable has shown a negative impact on family members particularly to the development of the younger elements. On the other hand, the existence of relationships of social support has been associated with positive effects on parental role and hence the behavior and development of children.

When the family is already flagged as being at risk, social support is presented precisely as one of the factors on which we can intervene in order to positively influence the family. When informal supportive relationships are ineffective or nonexistent, the support of formal networks can be presented as key to helping families at risk to adapt to parenthood. This study points the interest of assess the levels of family unpredictability as well as the characteristics of the their support networks with a view not only on its evaluative and "diagnostic" usefulness for families at risk, but also their relevance in terms of intervention, identifying the strengths and weaknesses of the family, so that professionals and families can jointly design solutions for change. We think that the application of FUS upon to signaling families to early intervention and after a significant period of time of intervention could provide interesting data to assess possible effects of the program, and / or family needs.

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## TOXIC ENVIRONMENT: OUTCOMES OF PARENTAL METHAMPHETAMINE ADDICTION ON CHILD PSYCHOLOGICAL HEALTH

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### Abstract

A representative sample of 58 pre-schoolers (mean age = 4.4) and 78 school-age children (mean age = 8.2) from methamphetamine-producing (MP) and non-producing (NP) homes was drawn from a rural community in the southeastern part of the United States, for two separate studies. *Aims:* The major aim of the studies was to assess the psychological outcomes of living in MP homes on pre-schoolers and school-age children. The specific aim was to examine the impact of MP homes on the externalizing (behavioral) and internalizing (emotional) functioning of children who lived with meth-abusing parents in these homes. *Methods:* For each of the studies, the participants in the MP and NP groups were similar in age, gender, and socioeconomic background. Children from the NP homes serve as the comparison group. Both groups were assessed using age-appropriate Behavior Assessment System for Children (BASC) forms. *Findings:* Pre-schoolers from the MP homes showed more externalizing problems than their peers, but were comparable on internalizing problems. For the school-age study, children from the MP homes showed more school maladjustment behaviors than their NP peers. In addition, for this rural sample, the prevalence of internalizing and externalizing disorders, even in children from NP homes, was higher than in population-based norms. *Conclusions:* These findings point to the need for mental health screening when a child is removed from an MP home and accessibility to mental health services for children in rural communities.

**Keywords:** *Preschoolers, School-age children, Methamphetamine, Psychological health, Rural community.*

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### 1. Introduction

The impact of methamphetamine (meth)-lab homes and associated risk factors on the psychological functioning of the children from these homes continue to receive attention. Unlike other illicit drugs, meth is typically produced in homes where children live, for the consumption of the meth addicts (Ostler, Haight, Black, et al., 2007). The fact that there are homes where meth is actually produced exposes children to unique physical and emotional hazards that warrant investigation. The effects of these homes on the mental health of these children must be understood in order to mobilize effective resources for prevention and intervention. For the purpose of this paper, an MP home is defined as a residence in which parent meth abusers (father only, mother only, or both parents) produce the drug for consumption and/or sale. Chronic parental meth abuse has been linked to psychotic behaviors such as intense paranoia, delusions and hallucinations (Meredith et al. 2005), and the “tweaking cycle” of use is considered the most dangerous because of the potential for violence (Sommers & Baskin, 2006). These children may be at higher risk for behavior problems because they may increasingly be exposed to the violence that is often associated with illegal drug activities (Oishi, West, & Stuntz, 2000).

The data on the effect of living in a meth-producing (MP) home on children’s mental health continue to increase (Asanbe, Hall, & Bolden, 2008; Ostler, Haight, Black, et al., 2007). Haight and research team (2005) investigated the impact of parent meth abuse on the development and well-being of school-age children. The researchers interviewed thirty-five adult informants from several rural Midwestern counties in the United States and reported that

the children experienced environmental danger, chaos, neglect, abuse, loss, and isolation. They further described the children as displaying psychological, social, and educational difficulties. Reporting on the same children, Ostler, Haight, Black, et al. (2007) used a mixed-methods design that allowed school-age children to describe what it was like living with meth-involved parents. The children's descriptions were supplemented by standardized instruments that assess their mental health symptoms. The researchers found that many of these children evidenced significant behavioral and emotional problems. Specifically, 65% had significant posttraumatic or dissociative symptoms and 57% showed other emotional and behavior problems. The researchers further suggest that the children reported minimal social resources to help them deal with emotional pain, and some children used avoidant strategies to cope with their home life situations. They added that these children also under reported on mental health assessment, and some relative caregivers were reluctant to admit to problems with the children in their care.

## **2. Objectives**

The objective of this paper is to provide an overview of two studies on children from MP homes and examine how information from both studies may help child welfare agencies in formulating policies and developing new levels of service for this population.

## **3. Hypotheses**

Based on the literature review, we hypothesized that (1) children who lived with meth-abusing parents in MP homes will have higher behavior problems than their NP peers, using the Behavior Assessment System for Children (BASC; Reynolds & Kamphaus, 1992), and (2) children who lived in MP homes will endorse higher emotional symptoms than the NP comparison group.

## **4. Methods**

### **4.1. Participants**

The participants consisted of children from MP homes and those from NP homes. Both groups were recruited from a community-based social services program in a rural community in the southeastern part of the United States. The following were the research eligibility criteria: (1) the preschool child should be between the ages of 4 and 5 and the school-age child should be between the ages of 8 and 9, (2) the child in the MP group was removed from home and living with a relative (mostly grandparents), (3) the child did not have known medical illness, (4) the child did not have a history of prenatal exposure to meth, and (5) the child was removed from a meth-lab home within the previous three months. Those who were removed less than 3 months were excluded to minimize traumatic intervening events that may be associated with their removal, as this could potentially bias the data. For the comparison group, the child met these inclusion criteria but, with no known history of living in a meth-lab home and no history of having been removed from home.

### **4.2. Procedure**

Mothers/legal guardians of the pre-schoolers completed the BASC-PRS-P and the older children completed the BASC-SRP self-report form. Children living with foster parents were not recruited because of issues relating to parental legal status. A licensed professional counselor administered the questionnaires during regular home visitation sessions. Completed questionnaires were computer-scored and analyzed using SPSS statistics program. The study protocol and consent forms were approved by the institutional review board (IRB) of Tennessee Technological University.

### **4.3. Assessment Instrument**

The BASC-PRS-P ( $M = 50$ ,  $SD = 10$ ), is a 131-item questionnaire that asks parents to assess a broad range of behavioral and emotional adjustment of children between ages  $2\frac{1}{2}$  – 5 years. Each parent rates the behavior of the focal child on a 4-point response format. The test

produces four broad domain scores: Externalizing Problems (EP), Internalizing Problems (IP), Behavioral Symptoms Index (BSI), and Adaptive Skills (AS) that are computed from 8 relevant clinical and 2 adaptive scales. The BASC-SRP ( $M = 50$ ,  $SD = 10$ ), is a self-report instrument that is commonly used to assess children between the ages of 8 to 11. The test consists of 152 items that ask children to indicate whether each statement on the test is true or false. The BASC-SRP produces four broad domain (composite) scores: School Maladjustment (SM), Clinical Maladjustment (CM), Personal Adjustment (PA), and Emotional Symptoms Index (EMI). Both measures show adequate reliability and the scales correlate fairly highly with corresponding scales on the Child Behavior Checklist (CBCL; Achenbach, 1991) and the Achenbach's Youth Self-Report (AYS; Achenbach & Edelbrock, 1987).

## 5. Results

The findings indicate that pre-schoolers from the MP homes showed higher aggression symptoms than their peers from NP homes. The school-age children with MP home status showed more school maladjustment behaviors than their NP peers. On specific behaviors, the data indicate that preschoolers in the MP group showed higher aggression symptoms than their peers from NP homes. For the school-age study, children from the MP homes showed more school maladjustment behaviors than their NP peers. The results also indicate that the prevalence of internalizing and externalizing disorders in children from NP homes was higher than in population-based norms. Specifically, the preschoolers showed a higher rate of depression, and the school-age children had higher rates of anxiety and atypical behaviors than their population-based peers.

## 6. Discussion

The findings from both studies suggest that the children in the MP group were vulnerable to behavioral problems. For this school-age sample, children who lived in MP homes appear to have difficulties with school adjustment and they may be particularly vulnerable to negative attitude toward teachers. This finding corroborates previous findings that have reported school adjustment difficulties in children who live in drug environments (Hogan & Higgins, 2001; McKeganey, Barnard, & McIntosh 2002). This finding could have reflected the paradox of living in a chaotic home environment and the expectation of functioning in a structured environment like the school setting. Although some of these children may find school to be a safe and protective place, they may express dislike for the teachers, because they are the authority figures who enforce compliance to classroom and school rules.

For the preschoolers in this sample, nearly 42% of children from the MP homes evidenced clinically significant externalizing (acting out) behavior problems. The researchers found higher aggression in children from MP homes and they also had depression and atypical behavior scores in the at-risk range. This finding corroborates previous findings that have reported increased aggression and delinquent behaviors in children who live in drug environments (Berger & Osborne 2004; Ostler et al. 2007). The social learning theory asserts that children are at greater risk for modeling aggressive behaviors when they are exposed to violence. Children who live in these homes are at higher risks for witnessing conflict-ridden relationships or experiencing violence (Sommers & Baskin, 2006). Children who witnessed parental meth transactions and the attending violence may also have difficulties using negotiations to settle disagreements. These findings should be put in perspective. It is plausible that being removed from their homes was most likely a traumatic intervening event that could have produced this outcome rather than the MP environment. It is also plausible that the aggression outcome may have reflected more troubled home factors, which is why their parents delved into meth in the first place.

With regards to emotional adjustment, the data from both studies suggest that there were no significant differences in reported emotional problems among children from the MP homes relative to the NP comparison group. This finding is contrary to those from other studies that children from meth-involved parents are at greater risk for developing emotional problems when



certain factors such as neglect, trauma, and exposure to violence occur in their lives or environments (Haight et al. 2005; Ostler et al. 2007). For this sample, it is plausible that being cared for by familiar relatives after removal from the MP home may have minimized the experiences of emotional symptoms.

## 7. Conclusions

For a start, it is counterproductive to oversimplify a response to the multitude of issues surrounding MP homes and child welfare. Although children from the MP group in both studies did not live in optimal drug free homes, the data suggests that many of them are not succumbing to significant psychological problems in many areas assessed. In spite of this finding, specific areas of concern exist. Aggression and overall acting out behaviors found in preschoolers may increase the risk for future behavior problems. In addition, the suggestion of vulnerability to depression should not be overlooked. For this population, a better understanding of their behavioral functioning could help mental health professionals and relevant government agencies in formulating policies. For the school-age children, dislike or resentment directed toward teachers and overall school adjustment problems may increase the risk for poor academic performance. If these findings are replicated, they could provide useful information to school psychologists, school counselors, and school social workers in developing appropriate clinical interventions.

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## PARENTAL INVOLVEMENT AND INCLUSIVE CONTEXTS

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### Abstract

Parental involvement is a multifaceted concept that encompasses different contexts and can be presented in various formats. Within the inclusive approach, the collaborative model and partnership of parental involvement provides a frame of reference that can help support professionals, educators and teachers in their contacts with parents of children with disabilities. This study aims to analyze the relationships between the perspectives of parents and teachers of regular education and special education, about parental involvement in school. In this research we constitute two samples, one for parents or caregivers and other of special education teachers, formed respectively by 256 parents of children with and without disabilities and 107 teachers of school clusters that allowed the access to most participant's research. The data were collected in six clusters of schools and also in APPDA (Portuguese Association for Developmental Disorders and Autism) and APCV (Cerebral Palsy Association in Viseu) of the district Viseu, as well as in other places of the same district. The comparative analysis of perceptions of parental involvement between parents and teachers, data shows that the largest divergence occurs between the regular education teachers and parents of students with disabilities. In contrast, the perceptions between special education teachers and parents of children with disabilities do not show significant differences. There are still significant differences between the two types of teachers (regular and special education) about perceptions of parental involvement.

**Keywords:** *Parental involvement, Inclusive education, Disability.*

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### 1. Introduction

Parental involvement in school emerges as a multidimensional construct that encompasses different contexts, family environment until the child's school, and can be presented in various formats. It seems to be consensual in the scientific literature its benefits in child and family development, as well as the work of the teacher and the school context (Englund, Luckner, Whaley & Egeland, 2004; Epstein, 1987, 1992; Grolnick & Slowiaczek, 1994; Swick, 2007; Kohl, Lengua & McMahon, 2000; Villas Boas, 2001).

The participation of parents in activities and tasks related to the school environment has been positively associated not only to academic achievement, school behavior and social competence of children, but also to improving parenting skills and the ability to intentional intervention in child development. In this context, we emphasize the importance of clear and flowing communication between parents and teachers, providing congruence between both contexts in relation to learning activities and the expectations of academic achievement of the child (Swick, 2007).

Among the different models and types of parental involvement, the model *overlapping spheres of influence* de Epstein (1987, 1992) appears as a reference in the field of understanding the relationships between families and the school. In this perspective, the family and school contexts function as spheres of influence that can be disregarded or approximated, in terms of practices and interpersonal forces that exist between the two systems. One of the key ideas of the model is the assertion that learning, development and academic success of the child are important reasons for establishment and collaboration between family and school.

In the framework of inclusive approach, the collaborative model and partnership of parental involvement, mentioned above, provides a frame of reference that can help and support professionals, educators and teachers in their work with parents of children with disabilities.

The model has a positive perspective about the participation of parents and perceives the potential skills of parents, within an educational intentionality towards child development. The current conceptual and legal Portuguese framework, as in the international context, attributes a central role to parents in protecting the educational interests of children as decision-makers participating in the educational process.

The collaborative model of parental involvement (Fine, 1991; Fine & Nissenbaum, 2000) based on a set of core ideas which, in summary, highlight the following aspects: include the parents in decisions related to the child; educate parents to participate in decisions that have to do with the child; focus on the more positive and constructive aspects of family events; support the parents to enable them for a greater participation; promote the empowerment of parents to work actively in the development and wellbeing of children.

Following such model have appeared several lines of research, whose results have generally confirmed the importance of parental involvement in improving interactions with teachers, in child development, parental adjustment and in promoting their empowerment. Parental and family involvement in the education of children and youth with disabilities has become one of the main purposes of professionals working in this area. The benefits in terms of planning and implementation of interventions have been widely documented by several studies (Dunst, Trivette & Deal, 1994; Englung *et al.*, 2004; Epstein, 1987, 1992; Simeonsson & Bailey, 1990; Turnbull & Turnbull, 1990).

## 2. The study (objectives and design)

This study aims to analyze the relationships between the perspectives of parents and teachers of regular education and special education, about parental involvement in school. The study was conducted according to a plan not experimental and correlational.

## 3. Methods

The selection of sample individuals was for convenience and intentional. We constitute two samples, one for parents or caregivers and other of teachers, formed respectively by 256 parents of children with and without disabilities (107 e 149 parents or caregivers) and 107 teachers of school clusters that allowed the access to most participants research (62 special education teachers; 45 regular education teachers). The data were collected in six clusters of schools and also in APPDA (Portuguese Association for Developmental Disorders and Autism) and APCV (Cerebral Palsy Association in Viseu) of the district Viseu, as well in other places of the same district.

The instruments for data collection were the “Parental Involvement in School Questionnaires” (Questionários do Envolvimento Parental na Escola – QEPE); version for parents (VPa); version for teachers (VPr) produced by Pereira, Canavarro, Cardoso e Mendonça (2003), with the theoretical model of Epstein (1987; 1992). We developed psychometric analyzes of the two instruments that reveals high levels of alpha Cronbach:  $\alpha = 0,93$  (VPa) e  $\alpha = 0,96$  (VPr). The application of instruments to parents and teachers took place between September 2011 and August 2012.

## 4. Findings

The comparative analysis of perceptions of the total sample of parents ( $n=256$ ) with those of regular education teachers suggests that although the average parent be higher [ $M=69,56$  ( $DP=12,07$ )], there are no differences with statistical significance ( $t= 1,582$ ;  $p= 0,115$ ). These results do not converge with those of Pereira *et al.* (2003) who found significant differences.

We performed a similar procedure for subgroups of parents and found that there were differences with statistical significance ( $t=3,748$ ;  $p=0,000$ ) between parents of children with disabilities ( $n=107$ ) and regular education teachers [parents are average higher  $M=63,88$ ; ( $DP=13,28$ ) to the teachers  $M=59,70$  ( $DP=14,09$ )], but the same does not occur ( $t=-0,966$ ;  $p=$

0,336) in the case of parents of children without disabilities (n=149). We further note that there are no significant differences between special education teachers and parents of children with disabilities [parents  $M=63,88$  ( $DP=13,28$ ); teachers  $M=64,04$  ( $DP=15,60$ )].

With regard to the differences in perceptions of engagement between the two groups of teachers, found that the average of special education teachers is statistically superior ( $t= 4,565$ ;  $p= 0,000$ ).

## 5. Conclusions

The data suggest that the greatest difference between the perceptions of parental involvement occurs between regular education teachers and parents of pupils with disabilities. Taking as reference the legal framework of the Portuguese context, in particular the Law n.º 3/2008, which provides a greater role of co-responsibility of the regular education teachers in the educational process of students with disabilities, we understand that this goal is not yet a reality or, at least, it is a requirement under construction.

In contrast, perceptions among special education teachers and parents of children with disabilities do not show significant differences and thus, suggest a greater closeness and mutual understanding. This leads us to call into question whether changes taking place that are planned in domain political-legal, in order to build greater proximity of regular education teachers with parents and students with disabilities. Likewise, the perceptions of parental involvement between the two types of teachers reveals significant differences, which confirms to some extent the above reflections and indicate that the work should evolve towards greater convergence and articulation, based on a more solid knowledge about parental involvement, in order to delineate forms of intervention converging and promote a greater parental involvement as part of a collaborative and partnership approach.

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## THE EFFECT OF GROUP COUNSELING EXPERIENCES TO COUNSELOR TRAINEES' GROUP LEADERSHIP CHARACTERISTICS

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### Abstract

**Objectives:** The aim of this study is to construct and to enhance the group leadership characteristics of counselor trainees. **Design and Methods:** This study was held by survey model. The study was conducted with the graduates who studied in Psychological Counseling and Guidance, Dokuz Eylul University, Turkey during 2011-2012 academic year. The sample of this study consists of 18 3rd level volunteer undergraduates. Before group counseling session, debriefing about rationale theories and process of group counseling was given. First, the researcher practiced a sample group counseling session in which the trainees were group members to teach how to manage the group. Afterwards, each trainee has practiced group leadership and managed group session once a week. After all of the trainees completed and experienced group management and leadership, an open-ended questionnaire was applied by the researcher and interviews were made individually. The data were collected from students were analyzed by qualitative analysis techniques. The effects of these experiences were determined. **Findings:** According to the results of the study, group counseling experiences provided following gains to the trainees. Self-confidence to conduct group counseling sessions was developed. Self awareness both to their competencies and to the inabilities or inadequacies of their effectiveness in theory and application was developed. **Conclusion:** As a consequence, group counseling experiences have contributed positively to the group leadership characteristics of counselor trainees.

**Keywords:** Group counseling, Counselor education, Counselor trainees.

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### 1. Introduction

Group counseling offers real promise in meeting today's challenges. Group counseling enables practitioners to work with more clients-a decided advantage in these managed care times-in addition, the group process has unique learning advantages. Group counseling may well be the treatment of choice for many populations. Being a member of a variety of groups can prove to be an indispensable part of your training as a group leader. By experiencing your own cautiousness, resistance, fears, and uncomfortable moments in a group, by being confronted, and by struggling with your problems in a group context, you can experience what is needed to build a trusting and cohesive group. In addition to helping you recognize and explore personal conflicts and increase self-understanding and personal growth group can be a powerful tool. One of the best ways to learn how to assist group members in their struggles is to participate yourself as a member of a group. Yalom (2005) states that a substantial number of training programs require both personal therapy and a group experience for trainees. Training workshops are most useful in helping group counselors to develop the skills necessary for effective intervention. The trainees can also learn a great deal about their response to feedback, their competitiveness, their need for approval, their concerns over being competent, and their power struggles (Corey, 2010). Wittenbaum and others (2004) described the functional approach to groups as a set of theories that explain, predict, and improve group performance. Counseling supervision is central to both counselor education and the ongoing professional development of counselors (Pan et. al. , 2008).

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## 2. Methods

The research was structured as a survey model. In this context, according to the survey model, an open-ended questionnaire was used to collect data from undergraduates. Besides, researcher interviewed with the sample about their opinions about group counseling experiences. The population of the study consists of trainees from Psychological Counseling and Guidance, Dokuz Eylul University, Turkey during 2011-2012 academic year. In the selection of the sample was based on volunteerism. In the sample there were 14 females and 4 males. Before starting the group counseling session, the researcher informed about group counseling' theories and practices. Debriefing took about 6 hours. Then the researcher practiced a sample group counseling session in which the trainees were group members to teach how to manage the group. Afterwards, each trainee has practiced group leadership and managed group session once a week which the trainees were group members. At the end of each session, researcher has been supervised about group process. The group counseling modules, designed to assist counselor trainees, in managing and reducing anxiety, self disclosure, recognition emotions, assertiveness training took time in 90 minutes. In this study, qualitative research technique was used. An open-ended questionnaire was applied by the researcher and interviews was made individually about trainees' opinions. The data have been evaluated using content analysis technique. The data have been coded and conceptualized, concepts were grouped into categories. Then qualitative data have been digitized.

## 3. Findings

According to the results of this study, 17 trainees (% 94.44) thought that they have learned how to manage group. 14 trainees (% 77,77) thought that their self-confidences about being a group leader have increased after group sessions. 13 trainees (% 72.22) thought that this experience has enhanced their non-verbal communication skills (posture, make an eye contact etc.). 12 trainees (% 66.66) thought that this experience reduced their anxieties of being a group leader. 11 trainees (% 61.11) thought that this experience was very delightful for them. 7 trainees (% 38.88) thought that they incorporated the group members into the group process. 7 trainees (% 38.88) have understood the importance of group dynamics. 7 trainees (% 38.88) thought that they would use abilities which they gain in the group sessions in internship and in other courses. 6 trainees (% 33.33) thought their listening skills (reflection of feeling, reflection of content, asking open-ended questions etc.) have developed. 6 trainees (% 33.33) have mentioned that they have been helpful for group members. 6 trainees (% 33.33) thought their awareness had increased about their own characteristics. 5 trainees (% 27.77) have perceived more assertiveness after group counseling sessions. 2 trainees (% 11.11) thought that they have focused here-and-now. 2 trainees (% 11.11) have concluded that they have used self disclosure. 2 trainees (% 11.11) have concluded that they have perceived increased time effectiveness in group counseling sessions. 2 trainees (% 11.11) have stated that this experience had reduced their anxiety about their professional inadequacies. Research findings were shown on Table 1.

**Table 1:** *The Opinions of Counselor Trainees about Group Counseling Experiences*

<b>Counselor Trainee</b>	<b>n</b>	<b>%</b>
Learning how to manage group	17	94.44
Increasing self-confidence about being a group leader	14	77.77
The development of non-verbal communication skills	13	72.22
Reduction of anxiety about being a group leader at the beginning of the experience	12	66.66
Delightful experience	11	61.11
Gaining the ability to incorporate all group members into the group process	7	38.88
Understanding the importance of group dynamics	7	38.88
Using the achievements of internship applications and other courses	7	38.88
The development of effective listening skills	6	33.33



Feeling themselves helpful	6	33.33
Gaining an awareness of their own characteristics	6	33.33
Increasing assertiveness	5	27.77
Focusing here-and-now	2	11.11
Using self disclosure	2	11.11
Using time effective in group sessions	2	11.11
Reduction of anxiety related to professional inadequacies	2	11.11

#### 4. Discussion

It is found to be that the group experience had positive effects on the group members. Group counseling experiences have contributed positively to the group leadership characteristics of counselor trainees. Self-confidence for the conduct of the group counseling sessions was developed. Self awareness both to their competencies and to the inabilities or inadequacies of their effectiveness in counselor theories and applications were developed. This finding is consistent with findings revealed in similar studies. Pan, et al. (2008) studied to examine the effects of reflective counseling group supervision for military counselors. According to this study participants who received the reflective counseling group supervision would show a significant increase in their counseling competences. Four primary categories related to supervisory style, supervisory alliance, self-assessment, and supervising outcomes emerge as prominent and consistent from participants' learning experiences. According to Laux, et.al. (2007), students' participation in training groups as a function of enrollment in a group counseling course is almost a universal requirement in counselor education programs. The skill of screening for group membership is an essential component to the development of effective group leadership. Their study' results suggest that both types of screening methods produce neutral to favorable responses; however, students screened using face-to-face verbal screening methods reported significantly greater satisfaction with the group and the group counseling course. The results were congruent with the research findings Pan and Lin (2004), who examined the rank order of therapeutic factors, the relationships between leader behaviors, group experiences, and therapeutic factors, respectively, and the regression model between the predictor variables (group experiences and leader behaviors) and criterion variables (therapeutic factors). In this study, 32 college students participated and completed a group counseling program in Taiwan. Results concerning the descriptive statistics and rank orders of the therapeutic factors were examined. Analyses have revealed that significant positive relationships between leader behaviors and group experiences. In contrast, the relationships between leader behaviors and therapeutic factors varied. Finally, the linear combination of leader behaviors and a group experiences subscale (feeling toward activity) was able to predict therapeutic factors. Some of the trainees defined that have understood the importance of group dynamics. Many of researchers emphasized group dynamics too. Ohrt (2010), investigated the effects of personal growth groups and psychoeducational groups on counseling students' development. The results indicated the participants in personal growth groups experienced greater levels of catharsis and insight than participants in the psychoeducational groups. Additionally, the results indicated that there was not a difference between the groups at posttest on cognitive empathy, affective empathy, or group leader self-efficacy. Further, neither group experienced a change in cognitive or affective empathy from pre to post. However, both groups did experience an increase in group leader self-efficacy from pre to post. According to Kolk (1985) in leading the group, the counselor has an opportunity to observe and assimilate the dynamics not present in individual counseling. Ohrt (2010) indicated that counselor educators are used a variety of models to meet the experiential component of group training, many of which are psychoeducational in nature. Some of the groups may be designed to teach students about group dynamics or leadership. The qualitative inquiry describes the personal experiences of 15 master's level counselors-in-training who participated in an experiential personal growth group as an adjunct to their group counseling course. This study explored how counselors-in-training make meaning of their personal growth group experiences as well as how they perceive the experience of being members of this specific group. In an effort to bridge experiential

training and counselor practice, implications for educating counselors-in-training are provided based on the clinical and academic experiences reported by the students (Ieva, Ohrt, Swank, & Young, 2009). In other study explored the process and experience of online group counseling using a text-based synchronous program particularly addressing how the process compares to face-to-face group counseling (Lopresti, 2010). On the other hand, Counselor education programs accredited by the Council for Accreditation of Counseling and Related Educational Programs require their students to participate in a group experience as a member for 10 clock hours over the course of an academic term (CACREP, 2009).

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## THE ROLE OF BIG IDEAS IN TECHNOLOGY-MEDIATED CURRICULA

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### Abstract

Several studies point to the fact that many teachers around the world rely heavily on inquiry-based approaches in science. We argue that the devotion many science teachers have for this approach reflects a misguided view of the scientific process: Namely, the notion that scientific ideas are induced from factual data. The approach to science teaching and learning reported on here, termed “realist constructivism,” is based on a view of science that assumes that the regularities turned up by science not only exist in nature but that they can be directly accessed, at least qualitatively, through an act of reasoning known as “abduction.” Metaphor plays a key role in this process. This paper reports on an effort to test the realist constructivist approach in a fifth grade classroom. The authors argue that the realist constructivist approach to science teaching and learning represents a potential solution to the counterproductive on-going argument in education that pits activity-oriented reformers, who take their cue from the child, against their pedagogical counterparts, the more content-oriented traditionalists who focus on objective measures of student learning.

**Keywords:** Science, Technology, Constructivism, Learning, Curriculum.

### 1. Introduction

In the rapidly changing world of the twenty-first century, science literacy is an essential goal for every nation's youth. Through science education, students come to understand the natural world and “see” scientific regularity in many phenomena encountered in their daily lives. The goal we have set in this preliminary project for middle school science education is to begin to examine the role of content and process from a novel perspective. Instead of viewing content as being in service of process (“hands on” or inductive learning), or as the two being equal partners, this study views process as being entirely in service of content. Like the other two approaches, the one examined here views the process of scientific discovery as an imaginative, metaphoric process known as *abduction*. This view, also defined as “inference to the best explanation,” is the brain-child of a philosopher and scientist named Charles Sanders Pierce, a man whose work dates from the second half of the nineteenth century but who is increasingly being seen by highly respected scholars like Susan Haack (1998) and A. I. Miller (1987, 2000) as having a great deal to say in the current debate involving epistemologists and historians about the nature of disciplinary knowledge: The role of knowledge, in this view, is to open our eyes to important regularities in the world which enables us, among other things, to be more fully “in” that world (Prawat, ).

The process of abductive inquiry proceeds as follows: (1) A surprising fact, C, is observed (e.g., midnight is not, apparently, the coldest time of day; sunrise is); (2) but if H were true, C would be a matter of course (e.g., if the earth, especially the oceans and the Great Lakes, stores up energy which slowly dissipates over the night hours, then sunrise would be the coldest time of day); (3) hence, there is reason to suspect that H is true.

Items number two and three above, the second and third part of the process, the truly abductive part, requires the presentation of a “lens” in the form of a metaphor in order for students to begin to see the real regularity that will reconcile the seeming discordant fact(s) presented in step number one; it also requires their recognition of the fact that the regularity accounts for the discrepancy experience in the first phase of the process.

Following step number three, we then introduce the “deductive” phase of the abductive inquiry process as follows, continuing the numbering process: (4) Here students are asked to determine what things would be like if the hypothesis were true (e.g., one thing students might be able to deduce in the example, with some scaffolding from the teacher, is that, if water stores energy more readily than land, the oceans might stay warmer longer during the seasonal change in both northern and southern hemispheres from fall to winter); (5) students next must decide which of the outcomes is most germane to the hypothesis and then examine data that addresses the predicted outcome. Working in groups, they must explain how the data does or does not support the deduction. The final step (6) involves trying to induce other implications from the now tested hypothesis (e.g., the notion that the oceans and lakes play an important role in the “energy disequilibrium” effect which [hopefully] would be presented earlier in the hypothetical unit).

## 2. Model Curriculum Design Based on Abduction (Realist Constructivism)

In the approach being pilot tested in this paper, the science educator starts with an important real world phenomenon. The authors decided that weather would be a good example of such a phenomenon. Once this has been identified, the curriculum development process focuses on the regularities or laws (as ideas) that “open up” or “unpack” the phenomenon. One example of this is the notion of disequilibrium as it relates to energy from the sun. As the term “disequilibrium” suggests, energy from the sun is distributed unequally on earth, a notion that is apparent when one examines temperatures at different times (e.g., at noon and midnight) in the same place, or at the same time in different locations on the earth’s surface (e.g., at the poles versus the equator). The unequal buildup of energy, to continue with the big idea “story line,” creates disequilibrium which results in the movement of energy that we call “weather.” Two additional notions that help explain the unequal distribution of energy on earth relate to the fact that (1) the earth stores and slowly releases energy, and (2) the angle of the sun’s rays hitting the earth varies according to the curvature of the earth and the tilt of the earth in relation to the sun position (i.e., with or at right angles to the earth).

Identifying and sequencing the ideas sets the stage for the development of the three key features of realist constructivist teaching: First, the curriculum developer must figure out how to concretize or instantiate the ideas through the use of *metaphor, visualization, and/or physical enactment*; second, assuming that the metaphor or physical enactment enables students to “see” the regularity in the phenomenon, the curriculum developer must figure out how to scaffold students in the process of *formulating a coherent--and testable--explanation* of it; and, third, the curriculum developer must present options for students to ponder and discuss, one of which represents a *legitimate test* of the students’ explanation against scientific “fact.”

In this paper, we will illustrate how the realist constructivist approach works by focusing on the second big idea (energy storage and release) and the third big idea (the angularity issue) mentioned above. The account provided below, it should be emphasized, is based on preliminary work we have done as a way to think through this model. Apropos idea number two, we predicted that middle school students would identify midnight as the coldest time of day. Accordingly, the lesson relating to big idea two began by asking students the question, “What time of day is the coldest?” Students, working in pairs at wireless laptop stations, were asked to talk among themselves before formulating their response to the question. As predicted, the largest majority of the students (approximately 75%) responded with the predictable answer that, “It is coldest at midnight.”

## 3. Intervention

The intervention began with the teacher, as instructed, ignoring for the moment a “At the end of the night” response that was offered by one of the more science savvy groups. The groups were asked to explain why they thought midnight was the correct response. Six of the 12 groups of pairs gave slightly different versions of the explanation “because that is the middle of the night.” At this point, the teacher illustrated using her own laptop how to access the idea tool

titled “Day/Night Simulation.” This idea exploration tool depicted a small globe with a tiny red figure located somewhere in the Midwestern US. The globe had no tilt to simplify matters and the sun’s rays were depicted as emanating from the right. The students could rotate the globe by using their mouse from noon (where the tiny figure was profiled against the dark black sky, atmosphere being another complication that was eliminated in this simulation), around to sunset (where the figure was lost from view), to midnight (where the figure reemerged on the opposite side from the sun, another departure from reality in the interest of students grasping the idea), to, finally, sunrise (where the figure had barely emerged from the darkness). Associated with each rotation was a factually correct average temperature for the vernal equinox in the Midwest. What students saw, of course, was that it was coldest at sunrise. Our use of technology to present a surprising fact was the *first step* in the technology-mediated abductive process described earlier. The teacher, again as instructed, let the groups discuss this surprising result for a few minutes and then showed them how to access a second important “tool” on their computer.

At this point, the teacher engaged students in the *second* step of the realist constructivist process. This, as indicated, involved the use of a powerful metaphor to trigger the process of abduction. The purpose here was to provide a “lens” which allowed the students to see the regularity that, once grasped, allowed them to convert what was a surprising fact--in this case, the counterintuitive notion that sunrise and not midnight is the coldest time of day--into one that was viewed as a natural consequence associated with the hitherto unimagined regularity. The regularity that we want students to abduct, of course, is the notion that the earth, especially the oceans and the Great Lakes, slowly releases energy built up during the day over the nighttime hours.

To this end, students were presented in side by side boxes with two possible metaphoric “explanations” for the surprising fact that had been called to their attention: On the right there was a light switch which they can manipulate in an on/off position; in the off position, the box immediately darkens. On the left, there was a realistic representation of a pot of water on a gas stove in the process of coming to a boil. When they turned the knob beneath the pot, they turned off the flame beneath the pot. The pot contained a thermometer that showed the temperature slowly dropping when they stopped the source of heat. The question related to this metaphoric visualization tool which they were asked to respond on paper provided to each group was, “Which of these two images do you think fits best with what you have discovered about the coldest time of day? Why?”

The teacher, following instructions, spent a considerable amount of time (10 to 15 minutes) going over student responses with the class. She identified one or two of the most promising explanations, which the two-member groups were asked to incorporate into a revised answer to the question under consideration.

#### 4. Results

Comparison of pre- and post-test achievement scores in the pilot tests provided compelling data that the realist constructivist approach was a viable way to get essential weather content across to students--and in a way that, apparently, combined the *comprehensiveness* of content coverage typically obtained using traditional, text-book based instruction with the *depth of understanding* one associates with more progressive (and labor intense) project- or inquiry-based instruction. This statement necessitates some further elaboration of the kind of data collected in the pre- and post-testing phase of the week and a half long version of the weather unit discussed in this paper. As indicated, we used a middle school grade classroom for the purpose of testing the approach used here.

In the pilot testing, we were able to do a 10-week follow up to see how well students retained content to which they had been relatively briefly exposed (e.g., 30 minutes or less). Students fared well even on items that they had great difficulty with on the pre-test: The question, “Where on earth does nature best store the sun’s energy?” is an example. This item relates to a key idea in weather (not the one highlighted earlier): Namely, that water holds the sun’s energy longer than land. Seventy-three percent of the students selected “deserts” on the

pre-test; the percent opting for this on the post-test was 33% but this percent dropped even lower on the 10 week follow up test. Only 20% chose this option while fully 72% selected the correct choice, “oceans and lakes.” The remainder stuck with the third option, “mountains.”

We obtained a similar pattern for other important test items, including the item that directly assessed the efficacy of the intervention described above. The answer to our “When is it coldest?” question is another example of remarkable retention for such a young group: Sixty-seven percent chose the most obvious choice, “midnight,” on the pretest (see below), while 75% and 68% answered correctly (“sunrise”) on the posttest and on the 10- week follow-up, respectively. Another example of remarkable retention over the ten-week interval was for the item “How does a blizzard form?” On the pretest, 81% of the fifth graders selected “two cold air masses collide” as the answer. Again, after relatively brief exposure to this content, 76% responded to the correct answer: “Warm, moist air from the Gulf of Mexico collides with cold, dry air from Canada.” Fifty-seven percent of the students got this answer right on the follow up test (the third foil was as wordy as the correct one so that apparently was not the determining factor).

## 5. Conclusion

The pilot results reported above suggest that the Realist Constructivist approach examined in this study--which involves teaching big ideas in science through the use of concrete, technology-mediated metaphors, represents a promising alternative to the “hands on,” discovery approach favored by many reform-oriented science educators. It is fair to say at this point that additional research testing the more direct but still inference-based model of science discovery advocated here (e.g., “abduction” vs. “induction”) is in order.

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## **COGNITIVE FEATURES OF STUDENTS WITH DIFFERENT LEVEL OF RESEARCH POTENTIAL AND SUCCESS IN LEARNING**

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### **Abstract**

This article describes methods and results of study of cognitive features of master students with high, medium and low research potential and success in training. These differences revealed in the master students of first and second year in the scientific system of "psychology" and "history" in St Petersburg State University (SPSU). Obtained results are a psychological basis for masters' instruction differentiation, scientific supervision style selection and psychological support of students' individual learning and scientific work organization.

**Keywords:** *Learning, Research potential, Cognitive feature.*

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### **1. Introduction**

Investigation of cognitive features of future specialist researchers and revealing their differentiation in learning is topical and necessary for the following reason. First, students who study in same conditions, on same program, with same teachers succeed in learning and research differently. Secondly, in psychology and practice of research training of future specialists, a lot of attention is paid to their cognitive features to optimize their group and individual learning programs. Nevertheless, as far as we are aware, there has been no research or methodical tools developed for studying students' cognitive sphere as the psychological factor defining differentiation of success of their learning and research activity in the course of training.

### **2. Design**

1 - Define and describe cognitive features of master students of different fields of study ("psychology", "history") in St Petersburg State University (SPSU) with high, medium and low research potential.

2 – Define and describe the differences of cognitive characteristics in master students and their achievements in research activity pairwise between groups with high, medium and low research potential for each field of education (psychologists and historians).

3 - Define and describe differences of cognitive characteristics of all master students (psychologists and historians) in groups with high, medium and low research potential and different level of its implementation in learning.

Participants: master students of Psychology (23) and History (17) departments of SPSU, their scientific supervisors (40).

### **3. Objectives**

The study of cognitive features of master students with high, medium and low research potential, different success in research and achievements in educational programs of different fields.

### **4. Methods**

To study the cognitive features of students we used: Intellect structure test of R. Amthauer, "Thinking style" questionnaire of R. Bramson, A. Harrison (adapted by A.A. Alexeev, L.A. Gromova), Verbal creativity test RAT of S. Mednik (adapted by A.N. Voronin), Latchin's technique "Study of past experience influence on problem solving".

Methods of study students' research potential were developed under my guidance by a group of psychologists and pedagogues at St. Petersburg State University (N. Bordovskaia, S. Kostromina, S. Rosum, N. Moskvicheva, N. Iskra) (Bordovskaia Nina V., 2012). They include 51 questions for estimating motivational, cognitive and behavioral components of research potential, 30% of the questions are of the opposite character, 10-point-scale assessment for each indicator (10 points – the highest). The total score is the sum of assessments for all 51 indicators. We consider three levels of research potential: high, medium, low.

To study the results and efficiency of masters' research activity in learning we conducted a survey among students and their scientific supervisors. To find out the level of students' research potential implementation in learning we use series of indicators: students' participation in research activities: number of scientific publications, number of reports (co-reports) at conferences, participation in research projects, grants (on survey results); scientific supervisor's expert evaluation of student's research potential and level of its implementation in learning and master's thesis preparation (points from 1 to 10).

To process the empirical data we used methods of Kolmogorov-Smirnov, Kruskal-Wallis and Mann-Whitney. After preliminary analyses (mean, SE) were conducted we used methods of Kruskal-Wallis and Mann-Whitney for mean comparison.

## 5. The concept of 'research potential' and an approach to its study

What is research potential? Research potential is an integrative characteristic of a person's abilities which ensures achievement of personally important and socially significant aims in the field of scientific research in the past, present and future (Bordovskaia N.V., 2012).

The content of research potential is a set of qualities which enables a person to demonstrate research activity, to complete successfully the requirements (standards) of research activity and to self-develop as a researcher. The three main components of research activity (motivational, reflexive/cognitive and behavioral/performance) correspond to certain components of RP: specific cognitive needs, values, and cognitive features of the personality, some qualities of self-realization, especially in research, by which we mean the following (Bordovskaia N.V. and others, 2012). Motivational component of research potential contains features such as intolerance to uncertainty, satisfaction of problem solving, intellectual curiosity and intolerance for novelty. Cognitive component provides the knowledge and skills to implement research activity. It includes the flexibility of thinking, critical thinking, logic, speed and originality of thinking. Behavioral component of research potential contains characteristics of self-organization, self-control, adaptability, and assertiveness.

## 6. Results of empirical part of the research

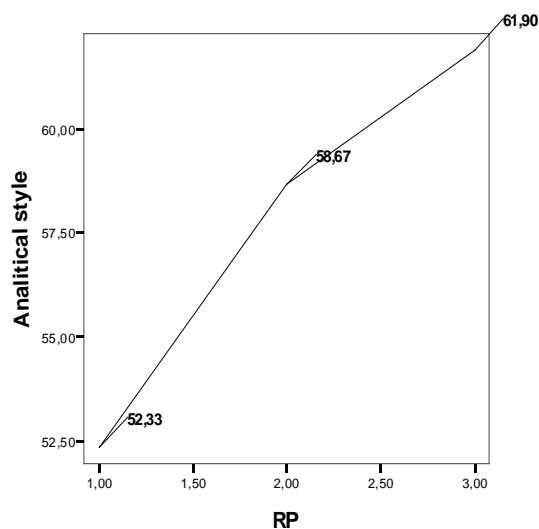
**First task.** We studied characteristics of cognitive sphere of master students' personality such as: convergent and divergent abilities, cognitive styles, conceptual system and features of using concepts, flexibility or rigidity of thinking, creativity, reflexivity.

Simultaneous comparison of three groups (master students with high, medium and low research potential) using Kruskal-Wallis criterion showed that three groups of masters-psychologists were significantly different ( $p \leq 0.05$ ) with the following characteristics: 4 subtest of Amthauer (generalization, level of abstract thinking) ( $p=0.02$ ); theoretical abilities ( $p=0.005$ ); indicators of analytical style ( $p=0.026$ ).

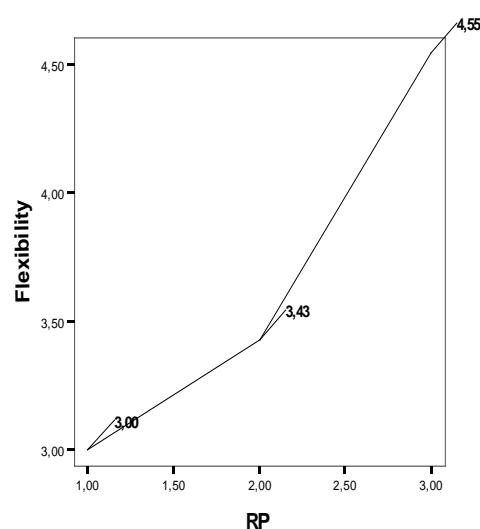
As a tendency we marked differences between the same groups of psychologists in other characteristics: verbal intellect coefficient ( $p=0.053$ ), 1 subtest of Amthauer (ability to correlate the task conditions with the information for its solution) ( $p=0.076$ ), 2 subtest of Amthauer (ability to find common signs and properties of objects or concepts, to compare them) ( $p=0.081$ ). Comparison of masters-historians with high, medium and low research potential using Kruskal-Wallis criterion showed that all three groups were significantly different ( $p \leq 0.05$ ) with only one characteristic - uniqueness index ( $p=0.026$ ). As a tendency we marked differences between three groups of historians in indicators of realistic style of thinking ( $p=0.085$ ) and originality index ( $p=0.095$ ).



**Second task.** Significant differences in indicators of analytic style (mean ranks 2.17 and 8.45 respectively,  $p=0.014$ , Pic. 1) and flexibility of thinking (mean ranks 2.75 и 7.77 respectively,  $p=0.054$ , Pic.2) were detected between groups of psychologists with high, medium and low research potential. Indicators of analytical style rise with increasing expression of research potential of master students. On picture 2 linear changes of flexibility indicators of masters-psychologists with different level of research potential are reflected.

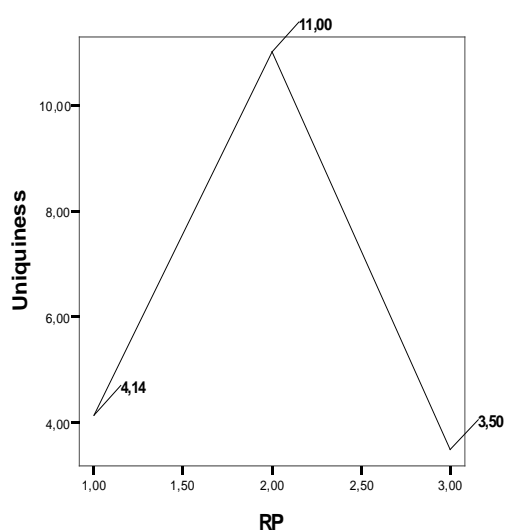


**Pic. 1:** Analytical style of thinking indicators change in groups of masters-psychologists with high, medium and low research potential.

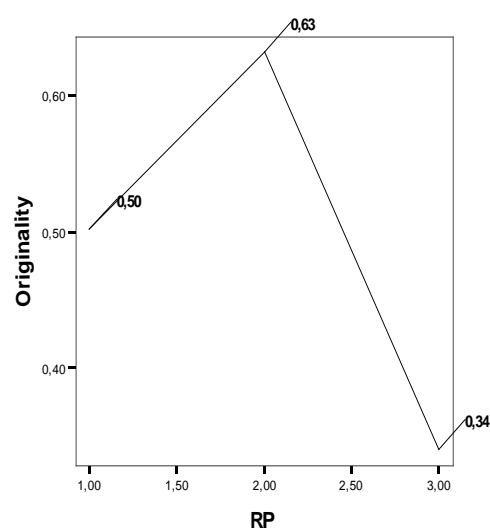


**Pic. 2:** Flexibility indicators change in groups of masters-psychologists with high, medium and low research potential.

Significant differences in intellect structure test of R. Amthauer: by subtest 1 (mean ranks 7.44 and 13.00, respectively,  $p = 0.034$ ), by subtest 2 (mean ranks 7.56 and 12.91 respectively,  $p = 0.040$ ), by subtest 4 (mean ranks 6.44 and 13.82, respectively,  $p = 0.005$ ); indicators of verbal intellect (mean ranks 7.22 and 13.18, respectively,  $p = 0.025$ ) and the theoretical abilities (mean ranks 5.89 and 14.27, respectively,  $p = 0.002$ ) were detected between groups of masters-psychologists with medium and high level of research potential.

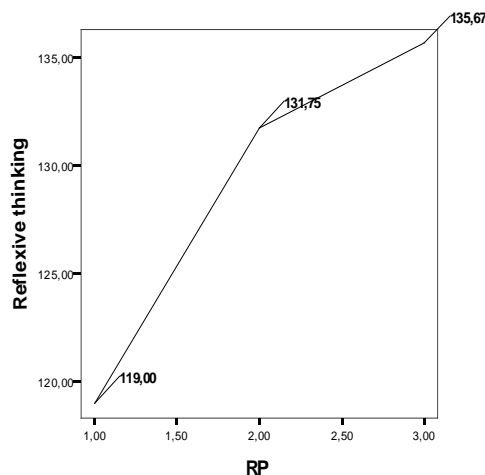


**Pic. 3:** Uniqueness index changes in groups of masters-historians with low, medium and high level research potential.



**Pic. 4:** Originality index changes in groups of masters-historians with low, medium and high level research potential.

As a tendency we identified differences in indicators of analytic (mean ranks 3.00 and 7.67, respectively,  $p = 0.051$ ) and pragmatic (mean ranks 9.67 and 5.44, respectively,  $p = 0.079$ ) style of thinking between groups of masters-psychologists with low and medium research potential. Significant differences between groups with low and medium research potential in future historians were detected in uniqueness index in problem solving (mean ranks 4.14 and 9.25, respectively,  $p = 0.013$ ).



**Pic. 5:** Indicators of reflexive thinking change in groups of masters-historians with low, medium and high research potential.

As a tendency - between groups of masters-historians with medium and high research potential (mean ranks 4.50 and 1.50, respectively,  $p = 0.064$ ) (Pic.3). Pic.4 shows that indexes of originality of masters-historians have also nonlinear changes, depending on intensity of research potential, during the transition from low to high level of research potential they increase significantly, and from medium to high they decrease abruptly.

We found differences in index of originality (4.50 and 1.50 respectively,  $p=0.064$ ) between groups of masters-historians with medium and high levels of research potential (Pic.4); in reflexive thinking (5.39 and 9.83 respectively,  $p=0.064$ ) and realistic style of thinking (4.14 и 8.00 respectively,  $p=0.078$ ) - between groups with low and high levels of research potential (Pic.5). Indicators of reflexive thinking increase with the intensity of research potential of masters-historians.

**Third task.** According to scientific supervisors' expert evaluation of students' research potential and level of its implementation in learning we allocated 3 groups of master students: 1 group – low level (3-6 points) - 21,2% , 2 group -medium level (7-8 points) - 33,3% , 3 group – high level (9-10 points) - 45,5%.

Simultaneous comparison of three groups using non-parametric Kruskal-Wallis criterion showed significant differences ( $p \leq 0.05$ ) in indicators of students' participation in research projects and conferences, number of scientific publications and scientific supervisors' expert evaluation of students' research potential. Pairwise comparisons of groups (1 and 2, 2 and 3, 1 and 3) using Mann-Whitney test showed that 1 and 2 groups differ in characteristics of the analytical style ( $M \pm SE = 56.6 \pm 4.84$  and  $62.28 \pm 4.46$ , respectively,  $p = 0.038$ ). Differences in indicators of participation in conferences, publications and scientific supervisors' expert evaluation of research potential were found in 1 and 3, 2 and 3 groups. In the first group (with low scientific supervisors' expert evaluation) master students have no scientific publications and do not participate in conferences. In the second group master students do not have scientific publications but participate in 1-2 conferences in average. In the third group (with high scientific supervisors' expert evaluation) master students have 3-4 publications an average and participate in four conferences. Moreover, we found differences in level of manifestation of abstract thinking in research tasks solving between 2 and 3 groups in 4 subtest of Amthauer ( $M \pm SE = 94.87 \pm 10.70$  and  $86.27 \pm 10.14$ , respectively,  $p = 0.036$ ). For masters-historians we identified significant differences in publication activity between groups with low and medium

(5.61 and 10.13, respectively,  $p = 0.042$ ) and medium and high (5.50 and 2.00, respectively,  $p = 0.028$ ) research potential. We identified significant differences in participation in conferences between groups with low and medium research potential (5.50 and 10.38  $p = 0.028$ ).

## 7. Discussion

In psychology there were noted the attempts to link intellect and productivity of learning and research activity of students (D.B. Ushakov (2003), Berry, Broadbent (1995), Taraban R.; Logue E. (2012) and others). However, psychologists are oriented mainly on study of intellectual abilities. We have been studying differences between cognitive characteristics of master students depending on level of their research potential as we agree with the opinion of a Russian psychologist M.A. Kholodnaya (2002). She states that the task is efficiently solved not by those who lacks the abilities but by those who misses the mechanisms of constructing the subjective representation, of the internal mental vision of the task. Unlike R.G. Sternberg (2002) who studied only stylistic features of gifted students' intellect, we have been studying the same features in all master students with different potential and unequal achievements in their research work.

## 8. Conclusions

1. It has been found that masters in the fields of "psychology" and "history" of the SPSU with different levels of research potential have different cognitive characteristics. Moreover, with the increasing intensity of the research potential in masters-psychologists their indicators of analytical style of thinking and flexibility increase and historians have increasing rates of reflexive thinking.

2. It has been found that cognitive characteristics of master students are in the system of complex nonlinear relationships independently of educational field, which is consistent with results of M.A. Kholodnaya, O.G. Berestneva (2005).

3. Masters-psychologists' success in research depends on intellect structure development, theoretical abilities, verbal intellect, analytical and pragmatic style of thinking. Masters-historians' success in research depends on reflexivity and dominance of realistic style of thinking, and also on creativity – uniqueness and originality in problem solving.

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## ASSOCIATIONS OF UNHEALTHY BEHAVIORS AND DEPRESSIVE SYMPTOMS WITH SCHOOL DIFFICULTIES AND ROLE OF SOCIOECONOMIC FACTORS IN EARLY ADOLESCENCE

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### Abstract

**Objectives:** Unhealthy behaviors such as alcohol, tobacco, cannabis and hard drugs uses and depressive symptoms are common in early adolescence and they are well known to affect physical, mental and cognitive functions. These factors can thus favor persistent school difficulties. Socioeconomic factors are known to favor unhealthy behaviors and depressive symptoms as well as school difficulties. This study assessed the associations of unhealthy and depressive symptoms with learning difficulty, low school performance, and school dropout ideation, and the confounding roles of socioeconomic factors in early adolescence. **Design:** Cross-sectional study. **Methods:** The sample included 1,559 middle-school adolescents from north-eastern France (mean age 13.5, SD 1.3), who completed a self-administered questionnaire including gender, birth date, socioeconomic factors (father's socio-occupational category, family structure, parents' education, parent death, nationality, family income, and social supports), last-30-day alcohol, tobacco, cannabis and hard drugs uses, depressive symptoms (Kandel scale, score >90<sup>th</sup> percentile), learning difficulty, low school performance (last-trimester mark <10/20), and school dropout ideation at 16 years (school is compulsory until this age). Learning difficulty was measured using an 8-item scale including lesson comprehension, concentration/lesson learning, keeping up the pace/constraint, relaxing/rest, class atmosphere, home learning atmosphere, teacher pressure, and parent pressure; Cronbach alpha coefficient 0.81, score >90<sup>th</sup> percentile). The school difficulties were chosen to measure various difficulty levels. Data were analyzed using logistic models to compute gender-age-grade-adjusted odds ratios (OR<sub>1</sub>) and the contributions of socioeconomic factors. **Findings:** Learning difficulty, low school performance, and school dropout ideation affected respectively 14.1%, 8.2%, and 3.8% of students. These school difficulties were linked with alcohol use: OR<sub>1</sub> 1.72 (95%CI 1.26-2.33), 1.51 (1.03-2.21), and 3.43 (1.96-6.01), respectively. Higher OR<sub>1</sub> were found for tobacco use: 3.82 (2.64-5.52), 5.81 (3.83-8.82), and 6.31 (3.53-11.28), respectively; cannabis use: OR<sub>1</sub> 3.61 (2.23-5.86), 4.12 (2.41-7.04), and 6.89 (3.45-13.76), respectively; hard drugs uses: OR<sub>1</sub> 6.37 (3.41-11.89), 5.05 (2.53-10.08), and 10.85 (4.99-23.55), respectively; and depressive symptoms: OR<sub>1</sub> 7.21 (5.06-10.27), 1.84 (1.16-2.93), 3.14 (1.64-6.03), respectively. The socioeconomic factors considered explained respectively <4%, 15-37%, 10%-31%, 20%-43%, and 20%-68% of the associations of school difficulties with alcohol, tobacco, cannabis, and hard drugs uses and depressive symptoms. **Conclusions:** Unhealthy behaviors and depressive symptoms were strongly associated with school difficulties. Socioeconomic factors highly confounded their associations. Public policy to improve school achievement, and thus community participation in adulthood, should focus on unhealthy behaviors and mental disorders, especially among students with socioeconomic difficulties. Causal relationships could not be advanced (study cross-sectional nature).

**Keywords:** Adolescents, School difficulties, Substance use, Depressive symptoms, Socioeconomic factors.

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### 1. Introduction

School difficulties are common across countries (Pech, 2010). To attain school achievement students need social, material, physical, and mental resources, but they are often

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lacking. School difficulties are an imbalance between learning conditions and student capacity to deal with them. School difficulties often appear early and may generate school disengagement over time. We suspect that unhealthy behaviors such as alcohol, tobacco, cannabis and hard drugs uses and depressive symptoms that are common in early adolescence may play high roles because they are well known to affect physical, mental and cognitive functions as well as working performance (Chau, 2012; Kalmijn et al., 2002; Nelson et al., 1994; Raphael et al., 2005).

Many adolescents early experience a number of socioeconomic difficulties which are well known to favor unhealthy behaviors and depressive symptoms as well as school difficulties (Chau, 2012; Legleye et al., 2010). Furthermore, mental disorders and school difficulties of people with socioeconomic difficulties are less likely treated (Chau, 2012). Because unhealthy behaviors and depressive symptoms are modifiable they can be prevention targets against school difficulties in early adolescence. The knowledge of the mediating/moderating roles of socioeconomic factors in the associations of unhealthy behaviors and depressive symptoms with school difficulties is important as it identifies most vulnerable students who need more helps. Unfortunately these issues have remained partially documented.

This cross-sectional study assessed the associations of unhealthy behaviors and depressive symptoms with several school difficulties levels measured by learning difficulty, low school performance, and school dropout ideation, and the roles of a wide range of socioeconomic factors (father's occupation, family structure, parents' education, death, nationality, family income, and social supports) in early adolescence.

## 2. Methods

The study population comprised all 1,666 students attending middle schools in an area of the Nancy urban area in north-eastern France. The population studied included all students from all the middle schools (two public and one private) in this area which included 63 classes. The investigation was approved by the regional education authority and the *Commission Nationale de l'Informatique et des Libertés* (national review board). Respondent written informed consent was obtained. The study protocol included: an application to participate transmitted to parents/guardians via students and data collection using an anonymous self-administered questionnaire during an 1h-class period, under the research team supervision (2010). The questionnaire was put in a sealed envelope by the subject. The questionnaire included socioeconomic factors, unhealthy behaviors, and school difficulties. Among the 1,666 subjects included in the population studied, 2 refused and 89 (5.3%) were absent when the data collection was carried out (for motive independent of the survey). In total 1,575 completed the questionnaire, of which 10 were of unknown gender or age, 9 were not completed appropriately, leaving 1,559 questionnaires (93.6%) for statistical analysis. The health-related issues of the sample were close to those of the whole France (Chau, 2012).

Seven father's occupational groups were considered (international classification of occupation, ISCO): professionals and managers (reference category); craftsmen, tradesmen, and firm heads; intermediate professionals; service workers/clerks; manual workers; other active people, and inactive people (unemployed/retirees). For perceived income, subjects were asked whether their family financial situation was: comfortable or well off, earning just enough, coping but with difficulties, or getting into debt; low income was defined by coping, but with difficulties, or getting into (Hibell et al., 2004; Swahn et al., 2012). Poor social support was measured with a 9-item scale: 'During the last 12-month were you satisfied with support from your:' father, mother, father/mother-in-law, brothers/sisters, grand-parents, other family members, parents adoptive, host family, and friends (unsatisfied/indifferent vs. satisfied/non-concerned). The Cronbach's alpha was satisfactory (0.57), allowing a single score to be calculated as the number of positive responses. It was categorized into: 0, 1-2, and  $\geq 3$  (90<sup>th</sup> percentile value).

Last-30-day use of tobacco, alcohol, cannabis, and hard drugs uses were assessed with the questions (Hibell et al., 2004; Swahn et al., 2012) 'During the last 30 days': 'did you smoke cigarettes?', 'how many times have you had alcohol drinks (beer, cider, champagne, wine,

aperitif?', 'how many occasions have you used any form of cannabis?', and 'how many occasions have you used any form of other illicit drugs (mushrooms, ecstasy, LSD, ...)?' (any vs. none). Depressive symptoms were measured with the Kandel scale (Kandel & Davies, 1982; Swahn et al., 2012). The Cronbach's alpha was satisfactory (0.84) allowing a single score to be calculated. Depressive symptoms were defined by a score  $\geq 17$  (90<sup>th</sup> percentile value).

Learning difficulty was defined by a 8-item scale: 'Since the beginning of the school year, do you have difficulties for': 'comprehension of lessons', 'concentration and learning of lessons', 'to follow school pace and constraints', 'to relax or rest', 'class atmosphere', 'home learning atmosphere', 'teacher pressure, and 'parents pressure' (none=1, rarely/sometimes=2, often=3). The Cronbach's alpha was satisfactory (0.81), allowing a single score to be calculated as the sum of the responses (range 8-24). Learning difficulty was defined as a score  $\geq 18$  (90<sup>th</sup> percentile value). Low school performance was assessed with the question 'What is your average school-mark for the last-trimester?' ( $<10/20$ ). School dropout ideation at 16 years was addressed in the question 'Do you wish to continue your study after middle school?' (at university, vocational training, school dropout at 16 years).

To assess the associations of unhealthy behaviors and depressive symptoms with school difficulties, and the contribution of socioeconomic factors, two logistic models were performed: a basic model (model 1) measured the associations adjusting for gender, age, and grade, and then with further adjustment for socioeconomic factors (model 2). The contribution of socioeconomic factors to the explanation of their associations was estimated by the change in the odds ratios i.e. explained fraction calculated by the formula:  $(OR_{model1} - OR_{model2}) / (OR_{model1} - 1)$  (Lynch et al., 1996).

### 3. Results

Learning difficulty, low school performance, and school dropout ideation were common: 14.1%, 8.2%, and 3.8%, respectively. The characteristics of subjects are shown in Table 1. These school difficulties were strongly linked with alcohol use: gender-age-grade-adjusted odds ratios ( $OR_1$ ) 1.72, 1.51, and 3.43, respectively. Higher  $OR_1$  were found for tobacco use: 3.82, 5.81, and 6.31, respectively; cannabis use:  $OR_1$  3.61, 4.12, and 6.89, respectively; hard drugs uses:  $OR_1$  6.37, 5.05, and 10.85, respectively; and for depressive symptoms:  $OR_1$  7.21, 1.84, and 3.14, respectively. All socioeconomic factors also related to school difficulties with  $OR_1$  up to 8.0. Table 2 evidences that the socioeconomic factors considered explained respectively  $<4\%$ , 15-37%, 10%-31%, 20%-43%, and 20%-68% of the associations of school difficulties with alcohol, tobacco, cannabis, and hard drugs uses and with depressive symptoms.

### 4. Discussion

This original study in early adolescence in France shows that this crucial age period exposes many students to persistent school difficulties measured with learning difficulty, low school performance, and school dropout ideation, and that these were strongly associated with unhealthy behaviors and depressive symptoms. This finding was consistent with our hypotheses that alcohol, tobacco, cannabis and hard drugs uses and depressive symptoms are common and may affect physical, mental and cognitive abilities as well as working performance (Chau, 2012; Kalmijn et al., 2002; Nelson et al., 1994; Raphael et al., 2005).

Our study reveals that socioeconomic factors including father's occupation, family structure, parents' education, death, non-European immigrant, income, and social supports played high mediating/moderating roles in the links of unhealthy behaviors and depressive symptoms with school difficulties. These results may be explained by the fact that all behavioral, mental, and school difficulties are more common and less likely to be solved over time among students in low socioeconomic groups.

**Table 1:** Associations of unhealthy behaviors, depressive symptoms and socioeconomic factors with school difficulties (N=1559): gender-age-grade-adjusted odds ratios and 95% confidence intervals

	N (%)	Learning difficulty		Low school performance		School dropout ideation	
UNHEALTHY BEHAVIORS AND DEPRESSIVE SYMPTOMS							
Last 30-day substance use							
Alcohol	549 (35.2)	1.72***	1.26-2.33	1.51*	1.03-2.21	3.43***	1.96-6.01
Tobacco	174 (11.2)	3.82***	2.64-5.52	5.81***	3.83-8.82	6.31***	3.53-11.3
Cannabis	87 (5.6)	3.61***	2.23-5.86	4.12***	2.41-7.04	6.89***	3.45-13.8
Hard drugs	43 (2.8)	6.37***	3.41-11.9	5.05***	2.53-10.1	10.85***	4.99-23.5
Depressive symptoms	208 (13.3)	7.21***	5.06-10.3	1.84**	1.16-2.93	3.14***	1.64-6.03
SOCIOECONOMIC FACTORS							
Boys	778 (49.9)	1.18	0.88-1.57	0.97	0.67-1.40	3.47***	1.89-6.38
Age (year)							
12-	603 (38.7)	1.00		1.00		1.00	
13	373 (23.9)	1.28	0.76-2.16	1.59	0.78-3.24	1.29	0.53-3.14
14+	583 (37.4)	2.46**	1.27-4.77	3.33**	1.44-7.69	1.77	0.57-5.46
Grade in middle school							
1 <sup>st</sup> year	405 (26.0)	1.00		1.00		1.00	
2 <sup>nd</sup>	393 (25.2)	0.70	0.44-1.12	1.06	0.53-2.12	0.86	0.38-1.95
3 <sup>rd</sup>	389 (25.0)	0.53	0.27-1.02	1.03	0.43-2.48	0.86	0.28-2.62
4 <sup>th</sup>	372 (23.9)	0.33**	0.15-0.70	0.57	0.22-1.52	0.35	0.09-1.39
Family structure							
Intact	982 (63.0)	1.00		1.00		1.00	
Reconstructed families	231 (14.8)	1.76**	1.19-2.60	2.60***	1.57-4.29	1.88	0.84-4.22
Divorced/separated parents	160 (10.3)	1.63*	1.03-2.57	3.77***	2.25-6.33	4.91***	2.43-9.89
Single parents	102 (6.5)	2.00**	1.19-3.38	3.46***	1.87-6.41	2.64	0.96-7.26
Others	84 (5.4)	2.04*	1.17-3.59	3.27***	1.65-6.50	6.85***	3.11-15.1
Parent(s)' death	47 (3.0)	2.97***	1.57-5.62	2.69**	1.25-5.79	1.86	0.55-6.29
Insufficient income	276 (17.7)	2.85***	2.07-3.92	1.78**	1.18-2.71	1.97*	1.09-3.53
Non-European immigrants	47 (3.0)	1.90***	1.42-2.55	1.76***	1.24-2.49	1.87**	1.19-2.93
Father's occupation							
Professionals/managers	439 (28.2)	1.00		1.00		1.00	
Craftsmen, tradesmen, and firm heads	314 (20.1)	1.36	0.85-2.17	3.01**	1.43-6.32	2.64	0.96-7.27
Intermediate professionals	156 (10.0)	1.11	0.60-2.04	1.53	0.56-4.23	2.76	0.87-8.74
Service workers/clerks	144 (9.2)	1.24	0.68-2.27	3.18**	1.34-7.53	1.83	0.51-6.65
Manual workers	273 (17.5)	2.53***	1.64-3.92	5.98***	2.99-12.0	4.77***	1.83-12.5
Other active people	116 (7.4)	2.45**	1.40-4.27	7.52***	3.44-16.4	3.81*	1.19-12.2
Inactive people	117 (7.5)	2.52***	1.45-4.38	7.68***	3.57-16.6	8.00***	2.85-22.5
Low parents' education (primary school)	759 (48.7)	2.59***	1.90-3.52	5.19***	3.27-8.23	2.69***	1.51-4.79
Poor social support							
Score 0	720 (46.2)	1.00		1.00		1.00	
1-2	602 (38.6)	2.12***	1.50-3.00	1.77**	1.15-2.71	1.36	0.75-2.48
3+	237 (15.2)	4.44***	2.98-6.61	2.38***	1.44-3.95	2.42*	1.21-4.83

\*p&lt;0.05, \*\*p&lt;0.01, \*\*\*p&lt;0.001. N: number of subjects.

**Table 2:** Associations of unhealthy behaviors and depressive symptoms with school difficulties and contribution of socioeconomic factors (N=1559): odds ratios (OR) and 95% confidence intervals (CI)

	Learning difficulty			Low school performance			School dropout ideation		
	OR	95% CI	% <sup>a</sup>	OR	95% CI	% <sup>a</sup>	OR	95% CI	% <sup>a</sup>
<b>Model 1: gender-age-grade-adjusted odds ratios (OR<sub>1</sub>)</b>									
Last 30-day substance use									
Alcohol	1.72***	1.26-2.33	100	1.51*	1.03-2.21	100	3.43***	1.96-6.01	100
Tobacco	3.82***	2.64-5.52	100	5.81***	3.83-8.82	100	6.31***	3.53-11.3	100
Cannabis	3.61***	2.23-5.86	100	4.12***	2.41-7.04	100	6.89***	3.45-13.8	100
Hard drugs	6.37***	3.41-11.9	100	5.05***	2.53-10.1	100	10.85***	4.99-23.5	100
Depressive symptoms	7.21***	5.06-10.3	100	1.84**	1.16-2.93	100	3.14***	1.64-6.03	100
<b>Model 2: Model 1 + socioeconomic factors(OR<sub>2</sub>)</b>									
Last 30-day substance use									
Alcohol	1.69**	1.21-2.35	4	1.56*	1.04-2.35	-10	3.94***	2.17-7.15	-21
Tobacco	2.78***	1.84-4.21	37	5.11***	3.17-8.23	15	5.34***	2.76-10.3	18
Cannabis	2.80***	1.64-4.78	31	3.82***	2.08-7.01	10	5.86***	2.69-12.7	17
Hard drugs	4.06***	2.02-8.17	43	4.26***	1.90-9.54	20	8.57***	3.42-21.5	23
Depressive symptoms	5.94***	4.04-8.73	20	1.27	0.75-2.14	68	2.31*	1.12-4.77	39

\*p&lt;0.05, \*\*p&lt;0.01, \*\*\*p&lt;0.001. N: number of subjects.

<sup>a</sup> % = Reduction of OR computed with the formulae: (OR<sub>1</sub> - OR<sub>2</sub>)/(OR<sub>1</sub> - 1).

Our findings may inform policy makers and people around students that prevention to limit school difficulties should focus especially on unhealthy behaviors and depressive symptoms, and among students in low socioeconomic groups.

Limitations and strengths had to be mentioned. This study was based on self-reported data which are widely used to study adolescent living conditions, mental health, and unhealthy behaviors (Chau, 2012; Hibell et al., 2004; Legleye et al., 2010; Swahn et al., 2012). The participation rate was high (94%). Various measures have been used elsewhere (Hibell et al., 2004; Swahn et al., 2012). The prevalence of health/behavior outcomes was similar with that of French adolescents. All were made to guarantee students' anonymity. For this purpose birthday, birth place, residential town, school name, and precise class were not gathered.

## 5. Conclusions

Unhealthy behaviors and depressive symptoms were strongly associated with school difficulties. Socioeconomic factors highly confounded their associations. Public policy to improve school achievement, and thus community participation in adulthood, should focus on unhealthy behaviors and mental disorders, especially among most vulnerable students with socioeconomic difficulties. However causal relationships could not be advanced because of the cross-sectional nature of the study.

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## EXPANDING BORDERS: TEACHERS MOTIVATION

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### Abstract

Based on theoretical fields who are composed by *Motivational Process*, emphasizing the conceptualization of motivation, as a process who involves external/extrinsic and internal/intrinsic components; achieved during many moments with of no explicit organization (at home, at trips, at socialization processes) and organizations like in schools or universities, ore courses with includes *Teaching and Learning Processes*, in constant moments of interactions and reflections, enhancing for knowledges, abilities and attitudes/affect who lead to the capability to learn to learn, as a constant process between a teacher and a student, the most of the time at an educational setting, in constant *Interpersonal Relationships*, planned as an educational intervention, who gives a possibility to establish positive interactions. Our qualitative research, with testimonies from 26 teachers of three schools, about their pedagogical practice, motivation, aspects of his/her malaise and well being, reflections about their self-image and self-esteem, autonomy and cooperation for motivation in education, and the data of notes of qualitative recorded in field diaries, and speeches with observations obtained in the meetings with these teachers, analyzed by Content Analysis Technique and the categories we found are: a) Initial conceptions that subjects bring on the subject motivation; b) Relation between malaise/well being and teacher's motivation; c) Relation between self-image, self-esteem and motivation; d) Cooperation for motivation in the profession. We stress the need and importance of conducting positive aspects related to the subjectivity aspects of the teacher and students relationships, remembering that the three components (knowledge, skills and attitudes/affect) interact constantly, and we still see that our field research needs to be expanded, with a view to providing continuing education for the teachers (also students and parents), to make them aware of the importance of motivation and his/her well-being.

**Keywords:** *Motivation, Teaching/Learning processes, Interpersonal relations, Self-esteem.*

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### 1. Introduction

By analyzing the educational reality, it is observed that the situation in the classroom often reveals a lack of motivation, both students and teachers. In dialogic relationship between learning with education, motivation, lack of enthusiasm, lack of curiosity or loss of stimulus pose a risk to student's school failure.

Realize these obvious transformations and transport them into the institution it is essential to point out that teach.

Therefore, as good teachers we must pass a road a little beyond simple awareness teaching, in order to overcome patterns for effective educational practice and motivating, to compose with more clarity references of each educator and knowledge stemming from their experiences as well as understand and embrace the knowledge that each student already has and can continue to build.

### 2. Theoretical Field

Our Theoretical Field basically adopted the theories of teaching and learning, specifically focusing on cognitive theories of motivation, in the following directions: motivational processes and their complexity, tangible concepts to teaching and learning and reflections on interpersonal relationships in everyday life, remembering the lifespan approach.

#### 2.1. Motivational Process

Understanding that motivation is linked to human behavior is one of the factors to be investigated to better understanding the educational context.

Huertas (2001) warns us well that it is difficult to conceptualize motivation. Based on his studies, he says that motivation can be understood as a process that precedes human action, sometimes inherent in the human body (in the prefrontal region of the brain corresponding to interest the task with an end in itself and not as a means to achieve a goal), sometimes extrinsic (when attention to the task is related to the achievement of the goal, the task seen as a means).

Motivation can be defined also as a motivational process.

Extrinsic motivation objective a result, the stock price is subject to this result. If so, there are more chances of repeating the task and therefore tolerance to perform the actions is linked to the likelihood of successful outcome.

In intrinsic motivation, the goal is the action itself and the result is seen as a natural secondary. Success is always expected, but in case of failure, the attempt would have been valid as experience and interaction with people/environment.

However, the motivational process has relations with the origin of the reasons that precede a goal and consciousness we have of them. In every situation in which an individual act, is an implicit target, which can refer to many different individual intentions, for example, the improvement in our education, the achievement of something y desire, among others.

The goals in this sense can be characterized as affective, cognitive, personal relationships, organizational subjective or even related to the actual task to which they are intended

## **2.2. Teaching and Learning Process**

In the interaction of the processes of teaching and to learning, referring to the overall development of the subject, teaching is important to promote motivating situations in which the student learns to learn, enhancing his/her learning meaningful through the teacher proposes and assists, social educational process /socializing, in which both teachers and students (both subjects of their own learning) go through processes of cognitive development, where there is interchange with the medium in which they are inserted and acting.

These processes should be seen as a production shared between the two (teacher and student) and along with the content, in contextualized situations. In an educational interaction, both play distinct roles but equally are essential and fully interconnected, considering that teachers help his/her students in the process and vice versa, when students also helps his/her teachers.

In the educational setting, in which a variety of characteristics are revealed both by students and by teachers, motivation may constitute also an insurmountable 'problem' if the teacher does not have a conceptualization about your own motivation or also when not understand how these process happens at teaching and learning (Vygotsky, 1989, Piaget, 1987; Coll, 2004).

## **2.3. Interpersonal Relations**

Human relationships are constituted in and by the interactions of people with each other through shared diversified activities in daily life.

Vygotsky (1989) states that each subject is not only active, but interactive, building knowledge, skills and affect from intra and interpersonal relationships.

It is the exchange with others (and himself) that may be possible to internalize information, social roles and functions. It is a process that occurs from the social and interpersonal relationships via individual plan to a effective internal intrapersonal relations.

The school routine is constituted within the framework of social, affective and cognitive sets, turning into a favorable environment for the establishment of 'good' interactions between people, and through them, supported in an educational planned intervention, in order to trigger learning fundamental processes, on what motivates learning is the desire to learn, their effects and results, which can and should be promoted by education.

The motivational process occurs (also) in the classroom when the student finds reasons and meanings, says Huertas (2001). Therefore it is necessary to know the causes and the reasons why students learn. As in detective fiction, there are reasons that lead us to a reading, to unravel

it. Thus, learning is always necessary to seek reasons to overcome the inertia of not having to learn.

### 3. Research

The research we will read about is a qualitative study about the testimonies from 26 teachers of three schools of Porto Alegre-BR, about their pedagogical practice, their motivation, aspects of teacher's malaise and well being, reflections on their self-image and self-esteem, autonomy and cooperation for motivation in education.

The overall goal of the research was to analyze and describe aspects of teacher motivation within their pedagogical context, assessing levels of motivation and workshops promoting self-awareness, then to disseminate thoughts on the subject.

According to Stake (1998, p. 29), "in a qualitative research project, the themes appear, grow and die".

### 4. Data Analysis

Our qualitative research, with data of notes of qualitative recorded in field diaries, and speeches with observations obtained in the meetings with the teachers, were analyzed by Content Analysis Technique, according to Bardin (2004), and the categories we found were these:

(1) Initial conceptions that subjects bring on the subject motivation, where teachers confirmed certainties, by claiming that motivation is essential for human life, it is internal and is related to life goals.

Thus we can see that these ideas are associated with initial concepts presented by the authors who study motivation, and doubts, which expressed almost in full, the interest in knowing how to motivate their students, or looking for a method to develop the motivation of their students. With these ideas, it appointed to the need for individual and group experiences, consisting of different educational moments, helping to compose new concepts about personal motivation, reflecting on his student development needs and possibilities.

(2) Relation between malaise/well-being and teacher's motivation, in which the three institutions one can see that teachers have a high index of malaise professional aspects already, studied by Was (2004) and Jesus (2007).

We found that this led teachers to search for simplistic solutions and effective to be applied in the classroom.

In addressing the topic malaise in teaching, we can't forget the links between historical moments, political and personal experiences, as says Esteve (2004), they may provide further explanation of dynamics and levels of final causes of this malaise.

We believe that all teachers are more aware of the need to better understand their social reality and their own personal development, to go better in a well being direction.

The development themes on self-awareness workshops facilitated reflections on these aspects of malaise, when they experience group activities, new ways of perceiving themselves, promoting aspects in the development of well-being and health motivation.

Modernly we believe on the aspects of Health Psychology and Positive Psychology.

(3) Relation between self-image, self-esteem and motivation, which are the result of both interpersonal relationships and intrapersonal established throughout its existence. People who interact in different environments: family, school and society.

Thus, the affective dimension is not genetically determined, because the person is not born with a self-image and self-esteem formed, only with interactions they are formed in the environment they live in, says Vygotsky (1989).

We note, in the workshops offered, that teachers have initially difficulty to stop and reflect and expose him/herself.

The interactions provided self-knowledge and new insight from their peers, and interpersonal relationships become more positive.

Thus, we believe that positive interpersonal relationships in the workplace, favor the construction of positive self-image and self-esteem, since it is one of the social indicators of real self-concept, a summary table that makes you the 'person you want to be and you are' (ie the view that has about yourself).

The self-image is characterized in a dynamic photography that comes from telling us, then it follows from self-recognition, connected directly, and self-image develops from as we say, after our learning in contact with the examples, suffering severe inter-influence with / in the experiences in the context who one lives, stressed by Mosquera (1984) and Mosquera & Stobäus (1984).

(4) Cooperation for motivation in the profession, detached from the workshops of self-knowledge, in which cooperative work in which some teachers had difficulties in accomplishing a cooperative work, manifesting incompatibilities to work together with colleagues, without reaching a consensus for complete the task and proposed designs.

However other participants demonstrated they can ease deal with colleagues and consequently became involved with the activity, being positively motivated.

## 5. Final Considerations

Compose motivational teaching practices from cooperative work presents no special 'formulas', 'ready recipes' for either a distinguished educational process.

But comprises the consciousness that we can also compose meaningful learning cooperatively, recognizing the many opportunities to participate actively in each pedagogical practice, proposing participation and inclusion of all, with simple changes and procedural rules and structures, as well as each game or each teaching process.

From the work done, we realize the need and importance of conducting aspects related to the subjectivity aspects of the teacher and his/her students relationships, remembering that the three components (knowledge, skills and affect) interact constantly, and we still see that our field research needs to be expanded, with a view to providing continuing education for the teachers (also students and parents), to make them aware of the importance of motivation and his/her well-being.

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# EMOTIONAL COSTS AND COPING DURING REEMPLOYMENT<sup>1</sup>

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## Abstract

The main goal of the study was to investigate the emotional costs of occupational reintegration and their influence on a person. The study was conducted among individuals who are especially vulnerable for negative effects of reintegration, namely returning to work after long-term unemployment. The sample consisted of the reemployed (n=88) who voluntarily agreed to participate in the study. Questionnaires battery was administered in two waves (T1 and T2) in the first month of reemployment and after 3 months. Personal characteristics, as self-efficacy and sense of coherence, and social factors, as unethical behaviors in the workplace and their association to coping with reemployment emotional costs were analyzed. The significant increase of unethical behaviors experienced by the reemployed and decrease of problem-focused coping have been observed. In accordance, regression analysis showed significant relation between unethical behaviors and escape-focused coping. We assumed social support as an important environmental factor during reemployment. The results indicate direct and moderation effect of received social support and its adequacy.

**Keywords:** *Emotional costs, Coping, Reemployment.*

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## 1. Introduction

Reemployment outcomes are usually considered as e.g. number of job interviews, reemployment speed, and reemployment status or job satisfaction based on comparison between last and current job (Wanberg et al. 1999; 2002; Van Hooft & Noordzij, 2009); also return-to-work (RTW) approach traditionally examines e.g. worked hours, income, or work absenteeism for evaluating RTW outcomes (Steenstra et al, 2012; Huijs et al. 1999). However, employees regarded their productivity, job satisfaction, work-home balance, and the social relations in the workplace as much more significant (Wanberg & Kammeyer-Mueller, 2000). Thus, occupational reintegration success does not only imply finding a job, but foster long-term reemployment.

The existing research on the transition from unemployment to reemployment mainly focuses on job search behaviors. In fact, most research has focused on antecedents and outcomes of the job search process (Wanberg, 1997, Saks & Ashforth, 1999), whereas there is a relative lack of evidence involving predictors of reemployment success. Klehe and colleagues (2012) reviewed past research that underlines importance of employee involvement, communication, and fair organizational procedures in dealing with employee's insecurity. In such circumstances, the issue of employees' emotional well-being plays important role in understanding and supporting the reemployment success.

Entering a new organization is often accompanied by some degree of disorientation, reality shock, and a need to make sense of the new environment. The newcomers who enter the organization attempt to clarify the new environment and his or her place in it (Bauer & Erdogan, 2011). Unfavorable working atmosphere primarily affects in particular the newcomers, especially persons who have been previous unemployed and get a new job. The consequence of the unfavorable factors experienced by the reemployed might even lead them to the occupational re-exclusion. Since unemployment influence a person in a specific manner organizational reintegration could be particularly difficult for newcomers previously unemployed. Most of the unemployment research has focused on describing the experience of

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unemployment. Different studies (Feather & O'Brien, 1986; Paul & Moser, 2005) have shown that from the individuals perspective unemployment causes undesirable psychological consequences; correlates with negative psychological effects, provides to worsening of mental health, self-esteem and shifts toward more external locus of control. Unemployment leads often to decreases in perceived competence, as well as real lack of qualification, decreases in activity, and life satisfaction and increases in depressive affect. From this perspective, coping with difficulties within the workplace faced by the reemployed becomes crucial. Coping can be described as ongoing changes of behavioral and cognitive efforts to manage the demands of both internal and external transaction (Albion et al., 2005). Individuals adopt different coping strategies to deal with difficult situation, however not all of them are effective in long term. Albion et al. (2005) indicate for instance that people who use emotion-focused strategies in longer perspective are more likely to report the negative symptoms than persons who are more instrumental problem-focused.

## 2. Objectives

The present study assess psychosocial variables, such as self-efficacy (GSE), sense of coherence (SOC), unethical behaviours provided by co-workers or superiors as predictors of emotional costs after reemployment. In follow, the relationships between personal traits, social factors and emotional costs of reemployment are examined here in relation to coping with difficulties appearing during the occupational reintegration. Received social support was examined here as moderating the analysed relations. A theoretical model was developed in which personal resources (self-efficacy and sense of coherence) and social resources (social support and unethical behaviors within workplace) will be related to fewer emotional cost and better coping during the first working period.

## 3. Study Design

### 3.1. Participants and Procedure

The sample comprised the 88 reemployed who have voluntarily agreed to participate in the project. The study was designed as longitudinal. Questionnaires battery was administered in two waves (Time1 and Time2). Respondents were asked to fill out the questionnaires at the first measures point (T1). Three months after T1, all participants completed the questionnaires for the second measures point (T2). The 3-month follow-up was chosen for reasons that were both, theoretical (e.g., this time frame allowed for the longer term consequences of the coping behaviours reported at T1 to be observed) and practical (e.g., to maintain the engagement of respondents). The differences in level of unethical behaviors, emotional costs experienced by newcomers, coping and received social support in both groups have been examined.

The sample consisted individuals classified as reemployed; 50% of the sample were male subjects, the mean age was 34.5 years ( $SD=10.5$ ; range = 21-57). The average length of unemployment before getting the job was 16 months ( $SD=9.03$ ), what classified them as long-term unemployed.

### 3.2. Measures

*Emotional costs questionnaire* (Chudzicka-Czupala, 2010) includes 18 items corresponding to feelings appearing in the workplace, such as depression, apathy, frustration etc., rated on a 5-point scale ranging from 1 (not at all) to 5 (very often).

*Unethical behaviors scale* (Chudzicka-Czupala, 2010) to recognize the unethical behaviors in the workplace from the victim perspectives. Consists of 20 items corresponding to different forms of violence at work, (such as ignoring, belittling, isolation) rated on 3-point scale (never-often).

*Social support* (Ślebarska, 2009): the scale developed for the current study contains questions on four kinds of support (emotional, valuable, informational, and tangible) available from different sources (formal and informal). Participants were asked to report the amount of support they receive from others, using a 5-point rating scales from *not at all* to *a great extent*.

*The Coping Strategy Indicator (CSI)* (Amirkhan; polish version, Chudzicka-Czupala, 2004) examines coping strategies (problem solving, seeking support, avoidance). Respondents determine the extent of certain coping strategies responding to 33 items; 11 for each subscale. Problem solving is denoted by items such as "tried to solve the problem"; seeking support: "confided your fears and worries to a friend or relative"; and avoidance: "daydreamed about better times".

*SOC* (Antonovsky, 1987): Polish version of Antonovsky's original 29-item sense of coherence, including three subscales – comprehensibility, manageability and meaningfulness.

#### 4. Results

The data supported the predicted positive relationship between the unethical behaviors experienced by the reemployed in their new workplace and emotional costs ( $r=.53$ ;  $p < .01$ ). The correlation analysis (T2) also showed reemployment emotional costs as significantly and negatively correlated with GSE ( $r=-.22$ ;  $p < .05$ ), SOC ( $r=-.40$ ;  $p < .01$ ) and its dimensions: Comprehensibility ( $r=-.23$ ;  $p < .05$ ), Manageability ( $r=-.38$ ;  $p < .01$ ), and Meaningfulness ( $r=-.42$ ;  $p < .01$ ). The assumed relation between direct effect of emotional costs on coping activity were not significant.

Problem-focused coping was however significantly correlated on with self-efficacy ( $r=.25$ ,  $p < .05$ ) and SOC ( $r=.29$ ;  $p < .01$ ) on T1. The relationship between avoidance and both, SOC ( $r=-.23$ ;  $p < .05$ ), and unethical behaviors ( $r=.33$ ;  $p < .01$ ) were found on T2.

The Paired-Samples T test analysis showed significant mean difference of the extension of experienced unethical behavior at work and coping on T1 and T2. The higher level of unethical behaviors and lower level of problem-focused coping could be observed on T2.

The predicted effect of psychosocial variables (Unethical Behaviors, SOC, GSE and Social Support) on coping were tested using regression analysis and the relation between unethical behavior and avoidance was found to be significant ( $\Delta R^2=.10$ ;  $p < .01$ )

In the last step we analyzed the assumed moderating effect of social support and its adequacy on the relation between emotional costs and coping. Although emotional costs experienced at T2 was not significantly correlated with coping, the inclusion of the interaction terms did significantly add to the prediction of avoidance ( $\beta=-1.36$ ,  $p < .01$ ), indicating the presence of a moderation effect, that is, that the influence of emotional costs on coping (avoidance) varied significantly according to the adequacy of emotional support received by the respondents.

#### 5. Discussion

Strong correlations were found between the unethical behaviors experienced at work and emotional costs after reemployment. The correlation analysis (T2) showed SOC and its dimensions (Comprehensibility, Manageability and Meaningfulness) as significantly and negatively correlated with reemployment emotional costs. The focal variable was also negatively correlated with general self-efficacy.

The Paired-Samples T test analysis showed significant mean difference of experienced unethical behavior in the workplace and problem-focused coping between T1 and T2. The higher level of perceived unethical behavior provided by co-workers or superiors and lower level of problem-focused coping could be observed on T2 (repeated measures after 3 months). In accordance, unethical behaviors analyzed in the study increase tendency to avoidance. Although emotional costs were not significantly related to coping, the moderation effect of social support on this relationship has been analyzed. In follow, the emotional support adequacy decreases avoidance despite higher level of emotional costs experienced by the reemployed.

The study shows the role of psychosocial context of occupational reintegration that may help in coping in the first period of reemployment. Especially the role of unethical behavior, from the working network and kinds of social support received by newcomers, has been observed. Also, the mean differences observed between T1 and T2 provides useful knowledge.

Following, obtained data would allow to develop the follow up intervention study, designed to help reemployed person to better adapt in the new workplace.

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## STUDENTS' DROPOUT REGARDING ACADEMIC EMPLOYABILITY SKILLS AND SATISFACTION AGAINST UNIVERSITY SERVICES

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### Abstract

**Objective:** With the Lisbon and Bologna processes, studies completion and sustainable employability of students became priorities for European universities. For the Council of European Union, the share of 30-40 year olds with tertiary educational attainment should be at least 40% by 2020. The young Luxembourg University needs to understand why some students choose to leave without a diploma. Our aim was to analyse the relationships between self-perceiving of the academic employability skills (AES), self-related global quality of life (GQoL) and satisfaction towards against university services (SUS) among persisting and non-persisting students. **Design:** All freshmen (947) from the three Faculties of Luxembourg University (Sciences & Technology, Law & Finances and Social Sciences) were invited to participate to a cross-sectional survey that took place at beginning of the second semester. **Methods:** The persisting students were requested to complete an online questionnaire and those who had dropped out during the first semester (non-registered for the second semester) were contacted to responding at the same questions including socio-demographics characteristics: age; sex; nationality (yes/no); work (yes/no); father's and mother's occupational level and education. A discriminant analysis was undertaken using: the AES scale-6 items (Cronbach's alpha 0.81); the level of GQoL (1 item, values from 1 "very bad" to 5 "very good") and the SUS scale-3 items (Cronbach's alpha 0.74). **Findings:** 99 persisting students and 68 dropouts have responding. There's no significant age difference between these 2 groups (mean 21.12 years old). Dropouts are more likely young men (55.9% vs. 39.4% persisting,  $p = 0.036$ ) and have a job (58.2% vs. 3.6% persisting,  $p = 0.000$ ). Their GQoL is higher (83.3/100 vs. 78.1/100 persisting,  $p = 0.032$ ), but their AES are lower (55.2/100 vs. 67.3/100 persisting,  $p = 0.000$ ). Among them, AES and SUS are positively correlated (correlation 0.414;  $p = 0.000$ ). **Conclusions:** Contrary to what described in literature, dropouts are not older than persisting students. They've a poorer perception of their employability skills, they're less satisfied with university services (*like reputation of university, of faculty and teaching quality*). However, they've a better quality of life and much of them have a gainful work. These findings are in line with recent studies suggesting that perceptions of quality of higher education have an impact on students' satisfaction and behavioral intentions. Further researches will determine nature of links between academic services, employability skills and dropout.

**Keywords:** *Academic employability skills, Satisfaction against university services, Students' dropout.*

### 1. Introduction

Under the Lisbon and Bologna processes, studies completion and sustainable employability of students became priorities for Higher Education. European universities are encouraged to implement a student-centered learning system able to help learners to develop the competences they will need in a changing labour market. Moreover, institutions have to provide adequate conditions for the completion of their studies (Conference of European Ministers Responsible for Higher Education, 2009) so the share of 30-40 year olds with tertiary educational attainment should be at least 40% by 2020 ("Council conclusions on a strategic framework for European cooperation in education and training," 2009).

#### 1.1. Students' sustainable employability: a new challenge for universities

The Bologna working group on employability has defined employability as "the ability to gain initial meaningful employment, or to become self-employed, to maintain employment,

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and to be able to move around within the labour market” (Bologna working group of European Higher Education in a Global Setting, 2009, p. 5). The Working Group recommends that students acquire during their studies generic skills, transferable to a work situation, such as problem solving, team working, and ability to work independently or without specific instructions, adaptability, reflexivity, capacity to learn and use new technology, foreign language practice, and so on. It highlighted the importance of collaboration between universities and companies to identify how courses and programs of study can support students in developing employability skills.

Assessing student's employability is uneasy, so it's usually quantified a posteriori by measuring the employment rate, x months after the graduation. Moreover, the data don't take in count the kind of work they do (Is it a job directly connected to the university curriculum? Is the position in the company worth the diploma?) and, if this factors are taken into consideration, what kind of influence has the university training? This remains unknown! One more possibility is to measure the employability skills learned at university by appreciating the implementation in an objective way (that is to say in action). Such studies are less possible, so the surveys are more based on student's perception of their employability skills (Amara, 2012).

### **1.2. Students' satisfaction level and retention rate: two criteria of quality for universities' ranking**

With the increasing importance of University Governance and of the quality evaluation systems, the students tend to be considered as customers and the assessment of their satisfaction is strongly recommended. In the same time, the development of the European area of higher education and the raising international competition (Cubillo-Pinilla, 2009; Zaharia, 2005) conduce institutions to focus on the views of students concerning the services they provided. It appears that students' satisfaction is strongly related to the educational issues and in particular the quality of teaching (Ceyhan, 2004).

More and more of foreign students choose their university for their place in the international rankings (OCDE, 2011) which are nowadays, for a large part, based on the universities reputation. The evaluation is made by survey in the population (*Times Higher Education World University Ranking*, 15% of the total scoring) or among peers and companies in different countries (50% of scoring in *QS World University Rankings*). The number of non-graduated students is integrated in the notation (4.5% in the *Times Higher Education World University Ranking*). In addition, poor retention rates are also associated with funding issues for the institutions which are facing the negative effects of students' dropout on their image (Rowley, 2003). So the potential attractiveness of a university is linked on one hand on the students' satisfaction and, on the other hand on the studies completion rate.

## **2. Objective**

In this context, the young Luxembourg University needs to better understand why some students choose to leave without a diploma and how these "dropouts" are different from those who continue their studies, here called "persisting students". So, the aim of our research was to analyse the relationships between self-perceiving of the academic employability skills, self-related quality of life, and satisfaction over university services among persisting and non-persisting students.

## **3. Design and methods**

All freshmen (947) from the three Faculties of Luxembourg University (Sciences & Technology, Law & Finances and Social Sciences) were invited to participate to a cross-sectional quantitative survey that took place at the beginning of the second semester. The persisting students were requested to complete an online questionnaire and those who had dropped out during the first semester (non-registered for the second semester) were contacted by phone for responding at the same questions.

Topics were academic employability skills acquired at university (AES), satisfaction of university services (SUS) and general quality of life (GQoL):

- The AES scale consists in six items measuring skills in writing, critical thinking, solving problems, working effectively with others, lead/supervise others, ability to learn and apply new technologies (Baumann, 2011). Each level was estimated on a four point scale from “*not very good*” to “*excellent*” (Cronbach’s alpha 0.81).
- The self-perceived level of QoL is assessed by one item, noted with values from 1 “*very bad*” to 5 “*very good*”.
- The SUS scale (Cronbach’s alpha 0.74) includes three items concerning satisfaction with the reputation of their university, the reputation of their faculty and the teaching quality, scored in a range from “*very dissatisfied*” to “*very satisfied*”.

Socio-demographics characteristics as age, sex, nationality (Luxembourgish or not), gainful work (yes/no), father’s and mother’s occupational level and education were also gathered.

For each variable, a means comparison test between the answers of the two groups (dropouts and persisting students) was performed. A discriminant analysis was undertaken using the AES scale, the self-perceived level of QoL and the SUS scale.

#### 4. Findings

A total of 99 persisting students and 68 dropouts have responding to a questionnaire (Table 1). There’s no significant age difference between these two groups. Occupational and educational levels of parents are nearly the same. Most of them are Luxembourgish and are/were registered for full time studies.

**Table 1:** *Demographics characteristics of persisting and non-persisting students*

	persisting students N = 99	non-persisting students N = 68	p
mean age	20.9	21.7	0.178
[min ; max]	[17 ; 50]	[17 ; 36]	
	%	%	
men	39.4	55.9	<b>0.036*</b>
women	60.6	44.1	
Luxembourgish	60.6	70.6	0.185
full time studies	99.0	94.1	0.069
gainful work	3.6	58.2	<b>0.000***</b>
father’s educational level ( $\leq$ bac)	63.4	74.6	0.152
mother’s educational level ( $\leq$ bac)	68.8	74.6	0.445
father’s occupational level (worker/employee)	62.4	59.7	0.736
mother’s occupational level (worker/employee)	76.3	76.2	0.982

p-value : \*p<0.05, \*\*p<0.01, \*\*\*p<0.001

Dropouts are more likely young men, more than half of them have a job. Their reported quality of life is higher than persisting students, but their AES score is lower and for each of the skills (writing, critical thinking, solving problems, working with others, supervise others, ability to learn and apply new technologies), their level of perception is lower (Table 2).

**Table 2:** *Self-perceived Quality of Life, Satisfaction over University Services and Academic Employability Skills of persisting and non-persisting students*

	persisting students N = 99	non-persisting students N = 68	p
	average / 100	average / 100	
general Quality of Life	78.1	83.3	<b>0.032*</b>
Satisfaction of University Services (SUS)			
- reputation of university			
- reputation of faculty	59.3	46.7	<b>0.000***</b>

- teaching quality	53.3	41.3	<b>0.001**</b>
SUS score	57.7	41.7	<b>0.000***</b>
Academic Employability skills (AES)	56.7	43.3	<b>0.000*</b>
- writing	66.7	54.7	<b>0.001**</b>
- critical thinking	72.0	56.2	<b>0.000***</b>
- solving problems	73.0	64.8	<b>0.000***</b>
- working effectively with others	69.8	57.0	<b>0.001**</b>
- lead/supervise others	54.5	43.2	
- ability to learn and apply new technologies	60.5	43.2	<b>0.002**</b>
AES score	66.1	50.9	<b>0.000***</b>

p-value : \*p<0.05, \*\*p<0.01, \*\*\*p<0.001

Among the non-persisting students, AES and SUS score are positively correlated (correlation 0.414;  $p = 0.000$ ) (Table 3).

**Table 3:** Relationship between AES score and SUS score & GQOL level (bivariate tests)

Scores	Academic Employability skills (AES) score			
	persisting students		non-persisting students	
	N = 99		N = 68	
	<i>rho</i>	<i>p</i>	<i>rho</i>	<i>p</i>
Satisfaction of University Services (SUS)	0.033	0.296	<b>0.414</b>	<b>0.000***</b>
Global Quality of Life (GQoL)	- 0.043	0.740	0.198	0.108

p-value : \*p<0.05, \*\*p<0.01, \*\*\*p<0.001

## 5. Conclusions

It is usual to believe that people who drop the university has poor intellectual skills, that they have difficulties to understand the teachings and, therefore, that they are delayed in their schooling and so tend to be older than the average student. In the survey we carried out, instead what is described in literature, dropouts are not older than persisting students. Perhaps should we look elsewhere for reasons to this withdrawal? The study also shows they've a poorer perception of their employability skills; they're less satisfied with university services like the reputation of their university, faculty and the teaching quality. However, they've a better quality of life and much of them have a gainful work. Moreover, for this group, satisfaction level and self-perceived employability skills level appear to be interconnected.

A survey conducted among 17000 former students of British Columbia universities and institutes concludes also that development of employability skills is related to the overall level of satisfaction. But, it highlights that those who are employed are not more satisfied than the others, except if this job was directly related to their training (BC College & Institute Student Outcomes, 2003). This suggests that efforts should be undertaken to accustom students for the job market. Design of programs, training process, and teachings should help learners to improve their skills, their attitudes and their behaviour to obtain "a good job", that is to say matching their degree and their field of studies. But others in the academic life also have a role to play: by giving information on working life, advising choice of training places, supporting or counseling students. Finally, many universities are already offering services to help students coping with many practical, learning or psychological difficulties they are facing. For institutions it is also important to promote these activities and better inform students on how they can be assisted during their academic studies.

For the quality of life, the difference between dropouts and persisting students is perhaps that those who left the university are no longer subdued by the stress of university life. This possibility shows the need to consider the psychological well-being of students during their academic career (Baumann, 2011).

These findings are consistent with recent studies suggesting that perceptions of quality of higher education have an impact on students' satisfaction and behavioral intentions (Douglas, 2008). By focusing on high quality programs, and particularly creating opportunities for students to develop their employability skills, universities should promote and maintain high level of satisfaction. Moreover a high quality instruction in a supportive environment, and the creation of opportunities for students to develop their analytical skills, could also help institutions to maintain high levels of student satisfaction, and so encourage other to select their institution. Further researches will aim to determine the nature of the links between academic services, employability skills and dropout.

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## REFLECTION ON CAREER COUNSELLING IN TURKEY: FROM PAST TO FUTURE

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### Abstract

With the prominent effects of globalisation in the last 20th century, the field of vocational guidance and career counselling services has gained importance on a global scale. This study aims to examine the background of vocational guidance and career counselling in Turkey and attempts to provide an overview of the process of its development from the past to present. Although Turkey has a 50 year background of knowledge and ever-growing experience, there is a need to consider such aspects as shifts in paradigm, use of technology in provision of services and training of adequate numbers of experts.

**Keywords:** *Vocational guidance, Career counselling.*

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### 1. Introduction

With the effects of globalisation becoming significantly prominent in the last quarter of the 20th century, vocational guidance and career counselling services has become a socio-political tool on a global scale (European Centre for the Development of Vocational Training [CEDEFOP], 2008; Herr, 2003). “Vocational guidance and career counselling” is the point of origin of psychological and guidance services and the most important function expected of psychological counsellors in schools is to provide support to students in their decisions, preferences and preparations concerning their careers. In our current day, however, this is not a function which is only utilised by students; these are services have gained importance for adults also. It is for this reason that vocational guidance and career guidance services are not utilised only in schools, but is a lifelong need (Yeşilyaprak, 2010). This study was conducted in the form of a review; an investigation of the history and current situation of vocational guidance and career counselling in Turkey was carried out and attempts were made to develop recommendations for the future. Data for the review was obtained from related literature, legislation published by public institutions, screening of reports and statistics of public and other institutions and organisations and interviews held with experts in the field.

### 2. Historical and Current Vocational Guidance and Career Counselling Services

As the expectation of psychological guidance and counselling services is the important function of “supporting the selection of a vocation suited to the interests and abilities of the individual”, the history of psychological guidance and counselling services can be considered to be the history of vocational guidance and career counselling services. The development of psychological guidance and counselling services in Turkey can be reviewed in three separate periods, as given below (Yeşilyaprak, 2012).

#### 2.1. Beginning Period: Pioneering Steps (1953-1975)

Guidance services in Turkey started after American experts came to Turkey in 1950's and some Turkish educationists travelled to the U.S. to receive further training and returned to Turkey. The Test-Research Offices and Guidance Centres established by the Turkish Ministry of National Education (MoNE) functioned to develop and implement techniques and tools to assist students' orientation in their vocation and careers (Tan, 2000). In this period, the guidance services established in all secondary education schools, with also the additional objective of supporting the process of vocation selection. However, the lack of sufficient number of experts,

the services were not of an adequate level. Important first steps in this period towards these services in the education system can be considered to be the establishment of the Research and Guidance Centres, the first undergraduate program of Ankara University, the first graduate program offered by Hacettepe University and the “Guidance and Counselling” subject included in the teacher training program of the Gazi Education Institute (Tan, 2000). In this same period, another important development besides the education system was the establishment of the practice of “matching” within “employment-job placement” services in the scope of vocational guidance by the Turkish Employment Agency (İŞKUR) with the aim of support employment and job placement for the unemployed (Akkök, 2006).

## **2.2. Searching Period: Undecided Steps (1976-1994)**

Within these years, the priority policies of the State became “vocational education” and test and inventory developments and adaptations were rapidly undertaken to ensure students could be provided with suitable vocational guidance. For example, the “Kuder Interest Inventory” and the “Edwards Personal Preference Schedule” was adapted to Turkish by Özoğlu (1977) and Kuzgun (1989), respectively, while the “Self-Assessment Inventory” and the “Guide to Universities, Higher Education Programs and Vocations (1989)” was published. Also in this period, computer aided vocational information/guidance systems began to be used, however the use of the systems remained limited (Yeşilyaprak, 2010). Guidance became an accepted field in education by the National Education Summits in this period and a significant development was the widespreading of undergraduate programs in universities for the training of experts in psychological guidance and counselling. Furthermore, the “Turkish Psychological Guidance and Counselling Association” was established as a professional organisation to conduct activities in vocational guidance. In regards to vocational guidance of adults, “Work and Vocational Advisory Offices” were established in 5 provinces and related staff was trained by German experts. Also established in this period was the Vocational Advisory Committee (MEDAK), which was an important step in defining the related necessary data base for the defining of jobs and vocations and the related qualifications and standards. The first “Vocational Advisory Centre” was also established in this period (Akkök, 2006).

The actions mentioned above under the related headings concerning vocational guidance and career counselling cannot be considered to be systematic and showing great development, however, the quests and trials ensured knowledge and experience which served as a basis for the next period.

## **2.3. Development Period: Systematic Steps (1995-2012)**

In this period, a paradigm shift was experienced in vocational guidance and aspects as “vocational development processes” and “vocational development tasks” began to be discussed (Yeşilyaprak, 1997; Yeşilyaprak, Güngör & Kurç, 1995; Erkan, 1995; Nazlı, 2008). Psychological counsellors began to be employed in primary education schools and the guidance provided at the end of 8th grade was accepted as the follow on to “guidance class” in the first year of high school. Vocations first began to be introduced in this year. It was this period that the guidance lessons were introduced to the curriculum and vocational guidance activities and activity workbooks were developed (Nazlı, 2008; p.110). Applied thesis studies in the field of vocational guidance and career counselling at university level and developments in testing scales and efforts to adapt existing tests gained significant speed, while applied programs and textbooks specific to this area were also developed (Yeşilyaprak et al., 1995; Kuzgun, 1999; Erdoğan, 2003; Kuzgun & Bacanlı, 2006; Özyürek, 2008; Erkan & Kaya, 2009). In order to ensure a regular systematic approach for the activities of İŞKUR, the staff of İŞKUR underwent 8 months of training in the scope of a project funded by the World Bank (Varçın, 2007). With the support of the European Vocational Education and Development Centre, a report was prepared by F. Akkök and T. Watts (2003) to ascertain the current situation of Turkey which emphasised the legal basis, current implementation and the aspects which need further development in the field of vocational knowledge and vocational guidance and counselling services (OECD, 2004; Akkök, 2006; CEDEFOP, 2008). In this period, the “Private Employment Bureaus were opened under the supervision of İŞKUR (Official Gazette, 2 August

2004). Again in this period, another systematic step was the establishment of “Vocational Qualifications Agency (VQA)” to identify the national and international vocational standards (MYK, 2010).

During these years, the number of psychological guidance and counselling programs in universities increased. Currently, there are psychological guidance and counselling undergraduate programs in 52 universities, 41 being state and 11 being private universities which provide over 4,000 graduates. In addition, there are close to 30 graduate programs and 15 PhD programs in the field of psychological guidance and counselling. Ankara University is the only university with a graduate program in the field of career counselling. It is also observed in this period that the psychological guidance and counselling centres of universities and “Career Centres” also established in other universities provide vocational guidance and career counselling services in a systematic way and provide examples of best practice (Akkök, 2006). Another example of an important development in this period is the 360 hour vocational and career training provided by İŞKUR to university graduates. In this scope, 2,817 persons successful in the sufficiency exams were assigned as vocational and career counsellors (İŞKUR, 2012). An assessment of guidance teacher needs in educational institutions showed that the Ministry of National Education announced the need for guidance teachers for the year 2012 as 19,120. Furthermore, psychological guidance and counselling is at the top of the list of most required teachers within the next 10 years (MoNE, 2012). These figures and projections show that there is a high demand for guidance teachers and, thus, schools are not able to adequately provide vocational guidance and career counselling services. An important development in the field of vocational guidance can be considered to be the establishment of the “web-based vocational information system (MBS)” developed with the support of a project funded by the World Bank.

Investigation of current problems facing vocational guidance and career counselling services, it is difficult to say that it is of a systematic or developed level. When schools which established the beginning of services in this area are examined, it can be seen that there are many schools that require guidance teachers. While the ratio of guidance teachers to students should be 1 to 250 in schools, this ratio in Turkish primary education schools are 1 to 941, and 589 in secondary education schools. In some provinces, this figure is as high as 4,000 (Akkök, 2006; TürkPDR, 2012). Some of the problems faced in this area are that one fifth of students are placed in a university, unemployment and the score-based “preference guidance” provided by private tutoring centres. Information systems providing current information concerning vocations and the business world systematically is not sufficiently developed and computer-based programs are only now being developed. Data for efficient services provided by İŞKUR or institutions of the Turkish Ministry of National Education is accessible as there is no evidence-based system (Akkök, 2006; Akkök & Watts, 2003). Since the early stages of psychological guidance and counselling services in Turkey, in general, they have taken example of the American model. Although all resources and approaches are from the U.S. (where the most developed services can be found), models emerging from Europe have been considered in recent years. But, in fact, no European country is more equipped or experienced in comparison with Turkey (Akkök & Zelloth, 2010; CEDEFOP, 2008; Sultana & Watts, 2007).

### **3. The Future of Vocational Guidance and Career Counselling Services**

The average age of the population of Turkey is 30.1. While the percentage of the population of the working age is 67.6%, the percentage of the population in the 0-14 age group is 24.9%. Additionally, the rate of unemployment for the year 2012 was 9.1% and the youth unemployment rate is 18.1% (TUIK, 2012). These statistics show that vocational guidance and career counselling will continue to be in demand in the future. Although the Turkish Employment Agency (İŞKUR) has assigned 2,800 employment and vocational counsellors, it is expected that there will be a need for higher numbers of counsellors in the future. In addition, career counselling services of the Private Employment Bureaus shall be required in the future, which will work in cooperation with İŞKUR. In order for the actions undertaken in this field,



collaboration between İŞKUR and education institutions should increase and activities should be implemented in coordination.

For the development of the field of vocational guidance and career counselling, there is no doubt that academic studies must also develop. Thus, there is a need to offer graduate and PhD programs in vocational guidance and career counselling, to conduct empirical and non-empirical studies, publication of books and studies which investigate the current situation and offer suggestions regarding policies for the future. The paradigm shift in the field should also be considered when planning the future of vocational guidance and career counselling services. New paradigms in career counselling such as ensuring individual-environment matching, focusing on career development tasks and self-recognition, supporting lifelong career development, encouraging the development of individual potential, focusing on local and global labour force demand, establishing alternatives, taking personal responsibility, career background and undertaking a holistic approach should be considered. These new paradigms in the field of vocational guidance and career counselling are necessary for training of experts in this area, for the implementation of practices and its reflection in all fields (Herr, Cramer & Niles, 2004; Isaacson & Brown, 1997; Kummerow, 2000; Yeşilyaprak, 2008). Although various approaches and models have been developed (Niles, Amundson, Neault, 2011; Zunker, 2006) in the field of vocational guidance and career counselling, it is still difficult to say that these services are conceptualised or that there is adequate understanding of the paradigms in the case of Turkey (Yeşilyaprak, 2008). It is for this reason that models and programs appropriate for the cultural and social characteristics of Turkey need to be developed. In addition to having the potential to realise significant developments in the career development with 50 years of experience, Turkey should monitor the current paradigms in the field of vocational guidance and career counselling to support planning for the future.

#### 4. Conclusion

The aim of this study was to review the past, current and future of vocational guidance and career services in Turkey. It was found that the services gradually developed in time; however, it is not considered to be at an adequate level. It is predicted that the current need for career counselling at the national and global level shall increase in the future; thus, the training of experts in this area, ensuring lifelong career development, conducting academic studies and adapting to the shift in paradigm is considered to be necessary.

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## ACTION SIMULATION AND INDIVIDUALS' EVALUATION OF PROTAGONIST

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### Abstract

**Objectives:** Thus far, head movements (e.g., Wells & Petty, 1980), arm flexion vs. arm extension (e.g., Neumann & Strack, 2000), dominant vs. non-dominant hand (Briñol & Petty, 2003), facial posture (Strack, Martin, & Stepper, 1988), and standing vs. recumbent body posture (e.g., Petty, Wells, Heesacker, Brock, & Cacioppo, 1983) were shown to influence attitude formation. The current study was designed to extend these findings in several ways. First, it assesses the role of other bodily responses (leg position and leg movements) in formation of attitudes. Second, it investigates whether the “body-attitude compatibility effect” occurs only when individuals evaluate ideas in the message (e.g., Lang, Bradley, & Cuthbert, 1990) and process the language about themselves (Stepper & Strack, 1993), or whether it also occurs for evaluation of the protagonist. Finally, it examines whether engaging in real body movement influences attitudes to the same extent as merely preparing the body for movement. **Method:** A total of 38 individuals ( $M_{\text{age}} = 23.03$ ,  $SD_{\text{age}} = 5.53$ ) participated in the first experiment (10 male, 26 female, 2 did not indicate gender). Participants were randomly assigned into one of the two conditions and their bodily positions and movements were manipulated. Participants in the control condition read the text while standing erect in front of the computer screen with the two feet together. Participants in the advanced facilitation condition first exercised on a stationary bike for a minute. Then, they read the text from the computer that was on the height-adjustable rostrum while standing erect in front of the computer screen with their lead leg advanced forward (40 centimeters from the follow leg). Finally, when participants finished reading the target text, they were asked to fill in the questionnaire regarding protagonist's competence and activeness skills. Participants in both conditions (control and advanced facilitation) filled in the questionnaire standing with the two feet together. A total of 37 individuals ( $M_{\text{age}} = 22.84$ ,  $SD_{\text{age}} = 5.61$ ) participated in the second experiment (13 male, 22 female, 2 did not indicate gender). The procedure was identical to that for Experiment 1, with the exception that participants in the basic facilitation condition did not exercise on the bike prior to reading the text. **Results and Conclusion:** Results showed that participants in the basic facilitation and advanced facilitation conditions scored protagonist's competence and activeness skills significantly higher than participants in the control condition. These results lend support to a theory of social embodiment which suggests that reenactments of perceptual, motor, and introspective states represent knowledge (Barsalou, Niedenthal, Barbey, & Ruppert, 2003).

**Keywords:** Attitude, Body feedback, Social embodiment.

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## **DIFFERENT LIFE OF MUSLIM MESKHETIANS (MESKHETIAN TURKS) IN GEORGIA AND IN USA**

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### **Abstract**

The Muslim Meskhetians (or Meskhetian Turks) refer to a local population historically living in Samtskhe-Javakheti region of Georgia. The Muslim Meskhetians converted to Islam in the 16-17<sup>th</sup> century, during the Ottoman occupation of South-West Georgia. In the 40's of 20<sup>th</sup> century, as a result of Stalin's social policy to clean the southern border of the Soviet Union from "undesirable peoples", the Muslim population, predominantly comprised of the Turkish-speaking Meskhetians, was deported from the Caucasus to the Central Asia (Kyrgyzstan, Kazakhstan and Uzbekistan). Since 1944, they have lived far from their homeland Georgia. The Muslim Meskhetians had to overcome many obstacles in order to return back to their homeland. Only a small part was able to return back, a significant part still resides outside Georgia. Muslim Meskhetians After the deportation to the Fergana Valley were afterwards forcefully relocated to Russia, during several years they did not have either citizenship or passports. In 2006 the government of the US made a decision to shelter Muslim Meskhetians. Today, a repatriation of the Muslim Meskhetians to Georgia is on the agenda of the Georgian Government. It is important to study issues connected to the integration of the Muslim Meskhetians into the local communities. This research is an attempt to study influence of the new environments on the lives of the Muslim Meskhetians. It is important to understand how the new environments influence their lives. The research envisages observing the lives of Muslim Meskhetians in two different countries, Georgia and the USA. How the lives of these people, who belong to a very traditional communities change under the influence of the new environments. This article includes an analysis of the in-depth interviews. A differing degree of acceptance and adaptation, similarities and dissimilarities in two different counties have been observed. It is important to study traditions that survived, those which are changing or are born in the new social environment. The new environments influence the Muslim Meskhetians. The research analyses effects and influences of the new environments on the lives of the Muslim Meskhetians in Georgia and the USA.

**Keywords:** *Migration, Deportation, Gender, Influence, Environment.*

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### **1. Introduction**

The Meskhetian Turks were deported to the Central Asia, along with seven other ethnic groups in the Soviet Union during World War II. Whilst other deported people, Chechens, Ingush, Balkars, Karachais and Kalmyks were rehabilitated after Stalin's death and allowed to resettle in their pre-deportation territories, three groups were not permitted to return [1].

According to Georgian historical sources, a majority of Muslim Meskhetians are Georgians who were forced to live under the Turkish occupation for three centuries, as a result of which, their lives, religion and language changed [2].

The Meskhetian Turks or Muslim Meskhetians. Some researchers call them Meskhetian Turks, but let me call them the Muslim Meskhetians, because they are Muslim people from Meskhetia (Meskheta is a region in South-West Georgia).

The traditional and closed society, such as the Muslim Meskhetians, is a society, where a behavior of individuals is determined by historically defined models in this society and basic rules of social behavior are passed from a generation to a generation and are saturated by ritual actions [3].

Results of previous studies confirm [4] that despite their traditions and customs practiced for years, different social environments can influence their lives differently. It is also well-known that time is necessary for a change to occur. A society changes according to the social environment in which these people live.

Results of the studies undertaken in 2004-2006 [5] revealed that some traditions and customs survived among Muslim Meskhetians in all countries irrespective where they resided. These are traditions and customs related to marriage and funeral.

In general, Muslim Meskhetians live extended families, where different generations live together. Functions in the families are delegated according to Parsons' Functional Fit [6]. Attitudes with regards to education are gender-segregated. According to 57 years old Muslim Meskhetian man living in Georgia for the last 30 years, 4 years of education is absolutely enough for a woman.

The Muslim Meskhetians speak an Anatolian dialect of Turkish, which they call "Meskhuri". After the deportation, those who received secondary and high education (in the Soviet Union, education was obligatory for everyone) learned a language of the republic where they were forced to reside. For the first generation of the deported Muslim Meskhetians, Georgian was familiar, but younger generations used the Anatolian dialect of Turkish as the language of communication, as the language spoken at home, 'taken from the motherland', which had to be safeguarded [7].

In the Muslim Meskhetian family, marriage is not taking place without parents' consent. Parents are key figures in choosing a spouse for their children. This custom is absolutely accepted inside the Muslim Meskhetian communities. Another important factor is that the Muslim Meskhetian marries only the Muslim Meskhetian.

My research interest was to study an impact of two different and new environments on the lives of the people, (1) who after the deportation to the Fergana Valley were afterwards forcefully relocated to Russia, were still deprived of the possibility to return back to their homes and as a consequence, now reside in the USA as refugees (Muslim Meskhetians move to USA in 2006) and (2) who have returned to Georgia on their own expenses, when Georgia still did not have a law on repatriation (the law on repatriation was adopted last year). Research issues:

- Do they adopt rules dictated by the new living environment and how different are these rules/changes in these two countries?
- An impact of the technological achievements and new social environment on the lives of these people.
- Common and different important changes for the Muslim Meskhetian communities in these two countries. I underlined several issues which are important and tried to demonstrate similarities and differences in the following areas: the composition of the families and functions, economic support, education, language, marriage and funeral. This paper attempts to give an overview of some aspects of the Muslim Meskhetians new life in new environments.

## 2. Design

In-depth interviews conducted with the Muslim Meskhetians living in Pennsylvania state, USA (Lancaster and Philadelphia cities) and the Muslim Meskhetians living in the village of Abastumani, Georgia. Both groups have migrated to these places in 2005. The interviews were carried out in the USA and Georgia in 2012.

## 3. Participants

30 Muslim Meskhetians (18 women and 12 men) living in Lancaster and Philadelphia, as well as 19 respondents/Muslim Meskhetians (14 women and 5 men) living in the village of Abastumani participated in this research. The respondents were distributed proportionally in 15-25, 26-45 and 46-< age groups as the different age groups may have felt the impact differently.

#### 4. Methods

- Desk Review – In the research the legislation related to the repatriation and migration of Muslim Meskhetians to the USA and Georgia was explored. In addition, various reports and findings on the Muslim Meskhetians were analysed.

- Field Study – In-depth interviews with the resettled Muslim Meskhetians in the USA (Pennsylvania state) and in Georgia (Samtskhe-Javakheti region) were conducted.

The questions (25 questions) in the in-depth interview questionnaire were about demographic details (5), economic issues (4), migration issues (life after migration) (5), education (3), and gender issues (3), social network (3) and identification (2).

#### 5. Discussion

An analysis of the in-depth interviews: particular attention is paid to the following issues: family finances, distribution of the work in the family, language and education, wedding and funeral.

##### 5.1. Family finances

*USA* - Income of the Muslim Meskhetian families in the USA is always under control and precisely decided where, when and how to spend it. In the majority of the interviewed Muslim Meskhetian families finances are collected and kept in one „piggy bank” by an elder. Money is mainly “managed” by a mother together with a father. Decision how to spend money is taken together: house is to be renovated, car is to be bought, or one of the child’s tuition fee is to be paid. It is customary that by the end of the week, on a salary day, received money must either be kept in the “piggy bank” or put on a family bank account. *Georgia* - The main breadwinner in families of the Muslim Meskhetians living in Georgia is a man who is working out of the family. Finances are mainly managed by the women, the men go out of the house to earn and bring money to the family; the women decide and distribute money. However, there is not much to spend, food is mainly produced at home and for the rest not that much money is needed.

##### 5.2. Distribution of the work in the family

*USA* - In the Muslim Meskhetian family everyone who is able to work, is working. Even the housewives who stay at home receive money for “taking care of the elder”. These elders are their parents: mother, father, mother-in-law, or father-in-law. According to the laws of various US states, if one takes care for their elder family members, this is considered as a job and it is paid by the state. *“We do not choose or select jobs; when we find any job, sometimes of course quite hard one, we are still happy that it is possible to find job opportunities here and that we can work. We didn’t have any rights in Krasnodar, here there are jobs and we all try to work, otherwise we would not have what we have”* (F, 45 years old). The Muslim Meskhetian women in the USA are employed, have their own salaries and contribute to the family budget. The majority of the Muslim Meskhetian women drive a car. They drive to work, pick up children or take them from a school and if needed, drive them to the gym or other places. Their husbands support their wives in learning driving and receiving driving licenses. The parents of young girls are also interested in and want their children learn driving. *Georgia* - In the Muslim Meskhetians families living in Georgia only the men are working. Due to a lack of Georgian language skills they are mainly employed in Turkish companies or are working in different towns where the Turkish companies operate: Batumi, Gori or Kutaisi. Only the men are the breadwinners in the families. The women stay at home, take care of “Kana” – small land where they have gardens to grow vegetable and fruits for the family and for sale. They have small farms, keep cows and sheep to have enough milk and cheese for the family. Among my informants, only one woman was employed, she was divorced and worked for a local non-governmental organization.

### 5.3. Language and Education

**USA** - The Muslim Meskhetians were hosted by various organizations when they arrived to the USA. They were offered 6-8 months-long language courses, but not everyone could attend these courses as after the arrival they immediately tried to find jobs to support their families. The women and new generation were more flexible and could better overcome language barriers. Children were attending secondary schools and they could easily master the language in the new environment. Those who wanted to study were supported by the parents, they entered universities and were financially supported by their families, the whole extended family tries to stand by them. It also a very interesting fact that in the USA the Muslim Meskhetians try to educate women; the fathers, as well as husbands, are motivated to finance girls' studies at colleges and universities. The Muslim Meskhetians try to talk Turkish at home so children don't forget the Turkish language. The whole day they watch Turkish TV programs, news, as well as soap operas. However, children prefer to watch American cartoons and adventure movies, consequently, they start to talk English-Turkish. Young parents also try to teach children English together with Turkish. **Georgia** - In Georgia, support for the Muslim Meskhetians with language courses was provided by the non-governmental organization "Toleranti". As a rule, the Muslim Meskhetian women do not speak Georgian at all. The exception is the mixed families with the wife either from Semtredia or Ozurgeti – these are women whose parents repatriated to Georgia during the first wave of repatriation in 1980's, they studied 6-8 grades at the school in Georgian, are fluent in Georgian and also help their own children in their studies. Others mainly speak Turkish or Russian. The lack of the language skills greatly hinders their communication with the local community. After a certain period of time, the Muslim Meskhetian women learn some Georgian words and start interacting with their neighbors. As for the men, the newly arrived Muslim Meskhetian men easily find jobs in the Turkish companies due to their proficiency in Turkish language, thus learning Georgian is not essential. They also communicate in Russian.

### 5.4. Wedding

**USA** - In the USA, the Muslim Meskhetian parents do not arrange weddings for their children anymore, but accept the choice of their children. There are different cases as well, when young people find each other via social networks. If they like each other, they talk, sometimes date secretly from parents and at the last moment inform the parents, but the family's role is still very important. For example, if the family doesn't like the other family (girl's or boy's family), the wedding can fail. However, more young people say: *"It is my life and I have to live with her, and they do not have any right to prohibit anything to me"* (F, 26 years old). **Georgia** - The Muslim Meskhetians leaving in Georgia resettled mainly from Azerbaijan where the old custom of marriage is still practiced.

### 5.5. Funeral

**USA** - When a person passes away the funeral service transports the body to the service building where it is kept until the burial. It means that, the Mullah performs traditional prayer ceremony at service building. **Georgia** - The custom of the funeral has not changed in Georgia. Everything is done as in old times.

## 6. Conclusion

As presumed, the resettlement of the Muslim Meskhetians in the new environment influenced their socio-economic conditions and their life styles. The influence was reflected in the interviews and tests about their daily lives.

Based on the analysis of the in-depth interviews and observation it could be concluded that the issues of family finances, distribution of the work in the family, language and education, wedding and funeral changed, they are now different, as the Muslim Meskhetians themselves note when they tell stories of their past and compare them with the present situation. Also, differences



are observed in the lives of the Muslim Meskhetians living in Georgia and the United States. This is reflected in the following areas: dynamics of a change in the relations between the spouses. Stereotypes about gender roles are undergoing modification, which is reflected in the fact that the men and the women now share equal responsibility for the family. This difference is more observed in the United States than in Georgia. In Georgia women stay more at home, they don't speak Georgian well and men are predominantly establishing communication with the external world.

Compared with the old times attitudes towards education have changed. In the USA, more emphasis is put on education and special attention is paid to women's education. The same is not observed in Georgia. The active role played by the parents in wedding their children have changed in the USA, which is not the case for Georgia.

The rituals related to the funeral have also changed in the USA. As for Georgia, the rituals are the same as they have been historically and traditionally. There are certain rites, which are maintained in both countries, they endured time and space, such as respect for adults (the son does speak in the presence of his father, the woman wears headscarf in the family of her husband, living in extended families, joint management of family finances and provision of joint financial support to family members and paying their tuition fees).

Differences in the economic and political situation in Georgia make the social environment in Georgia less favorable for the adaptation of the Muslim Meskhetians. The changes and rules of behavior are stipulated and determined by the social environment where the Muslim Meskhetians live. Economic situation in the USA is different from the one in Georgia and therefore, behaviors also differ. The adaption to the new rules require adopting certain rules of the behavior. Muslim Meskhetians, who live today in the USA, are US citizens and don't plan to relocate or move from their place of residence. They adopt the rules dictated by the society and environment with some modification, but at the same their traditions and rituals also change. The same cannot be said regarding the Muslim Meskhetians living in Georgia. They don't live so scattered in Georgia, on the contrary, they live in one settlement and this contributes to retaining their rituals and traditions.

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## MEDIA IMPERIALISM AND BODY IMAGE PERCEPTION IN KUWAIT

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### Abstract

Mass Media has a long-standing reputation of influencing perception and affecting behavior. And in the age of globalization investigating its influence in different cultural contexts has become increasingly relevant. Perpetuating unrealistic standards of body types is just one way mediated messages are said to influence negatively an audience. By way of TV, magazines and movies, the media imperialism of the United States is having a strong presence in small countries like Kuwait. The same media effects, on body image and identity, that are found in the US should also be observable. Furthermore, the social comparison theory states that an individual evaluates their own opinions by comparing themselves to others. Exposure to US media, in this case US television shows, offers individuals characters to whom to compare themselves. This study examines how US media imperialism and the social comparison theory through media affects body perception by examining how often college-age young adults watched shows with prominent thin television characters compared to shows that had a diversity of body types in the core cast. Being exposed to programming with only thin characters is expected to correlate positively with body dissatisfaction. The study included distributing 286 preliminary surveys to discover what were the most popular shows being watched by college students (mostly 18 to 25 year old). After the most popular shows were identified, surveys were circulated to a sample of 240 college-age young adults (120 males and 120 females) to determine if any correlation could be made between their television show preferences and their body dissatisfaction, or lack thereof.

**Keywords:** *Body image, Media imperialism, Cultural imperialism, Social comparison theory, Kuwait.*

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## 1. Literature review

### 1.1. Cultural and media imperialism

Cultural imperialism is a mode of thought that asserts that foreign culture invades countries through the dissemination of primarily American entertainment and news content. The American mass media is vastly imported to other nations and the fear is that these countries will have their own cultural values and traditions eroded and replaced with American mores and viewpoints. Critics say that American values and the American point of view is becoming dominant across much of the world due to the exportation of Hollywood films, TV shows and international news based out of the United States. Case in point, is US exported news coverage about regions such as South America, who are often portrayed as being involved with drug trafficking and revolutions, as these are issues that primarily affect US interests and US audiences. In many countries US media has displaced or/and eroded the local media, which are unable to compete with the demand and marketing dollars of US entertainment. To this extent, many countries who see the danger of cultural/media imperialism have placed media quotas on US entertainment content to help offset the damage done to their own domestic media industries and to hinder possible cultural influence and degradation (Dominick 2009).

Petras (1994) asserts that cultural imperialism has two main goals: to gain an economic foothold on foreign markets and the other being political and to shape audiences through cultural hegemony. Cultural imperialism consciously works to separate the audience from their own cultural heritage and traditions. In his article, Petras makes the point that audiences are largely working class who see US media as a way of assimilating a desirable modern lifestyle. The author postulates that the message is often directed toward young people who are more susceptible to the influences of mediated messages. The youth are the primary market of US media imperialism not only because they are the most lucrative demographic, but because they are the most attracted to US consumerism and ideas of individualism (Petras 1994).

However, there isn't a popular consensus on the definition of media imperialism (Fejes 1981). In his article Fejes, articulates that media imperialism emerged from the dependency model as opposed to modernization theories. Modernization revolves around the development of social values, while the dependency model focuses on the relationship between developed and underdeveloped nations, and the problems that arise from that link: underdeveloped nations are at a disadvantage in a political and economic system that favors developed nations. Modernization theorists view the developing countries as evolving social ideas and ideals on a continuum with western industrial nations as the archetype of where this evolution will eventually culminate.

No matter the definition, the influence of media imperialism especially on body image is prevalent and empirical. A wide body of studies has deduced strong causal relationships to substantiate its influence (Wykes & Gunter 2005; Fedorak 2008).

### **1.2. Body image**

Body image dissatisfaction is the theory that individuals are unhappy with how they look in relation to their body. Researchers have been holding the media responsible for the rise in body image dissatisfaction in accordance with the sociocultural theory, which posits that people learn from social interaction. In the article, "Striving for Bodily Perfection? An Exploration of the Drive for Muscularity in Canadian Men" (2003) the findings of the study concluded that there was a strong correlation with fitness magazines showcasing ideal male body types and comparisons to universal standards of the idealized male form, with the strength of dedication of the respondents' to attain muscularity.

Moreover, when one speculates how the media emphasizes unrealistic and aesthetic ideals, an image of a tall thin woman with perfectly groomed hair with unblemished skin often comes to mind, but studies have revealed that there has been an increase in emphasis on male aesthetic ideals in the media. In their paper, Jamie Farquhar and Louise Wasylkiw (2007) argue that since the 1980's the image of the male body has evolved to one that has been about the male form as a process, to where a man's physical appearance has now become an object. The authors construed that since the 1970's there has been a steady and strong increase in the trend of conceptualization of men's body as an object, with a consistent surge in discrete male body parts across the sample of magazines.

In the past, the majority of research on body image dissatisfaction has focused on females who have consistently shown dissatisfaction with their bodyweight (Harrison 1997). However, research has been increasingly focusing on males' body dissatisfaction (Morry, Staska 2001; Agliata, Tantleff-Dunn, 2004; Hobza, Walker, Yakushko, Peugh 2007). Though studies have discovered that both males and females do experience discontent with their body image, they have also given light to the differences in how males and females evaluate their physical appearance. The studies also show that the predictors and effects of body dissatisfaction differ for males and females. One result of body dissatisfaction is eating disorders. Eating disorders have been established to be affected by exposure to various mediated messages resulting in body dissatisfaction. When audiences are exposed to thin ideal body images, they are at higher risk of becoming dissatisfied with their bodies (Harrison 2000; Hobza, Walker, Yakushko, Peugh 2007).

Evidence supports the idea that exposure to mediated aesthetic ideals have an effect on behavior and attitudes (Anschutz, Van Strien, and Engels, 2011; Farquhar et. al. 2007). Furthermore, research revealed that exposure to media that depicts the thin-ideal body is associated with body image dissatisfaction, internalization of the thin body ideal, eating behaviors and to a general sense of body image dissatisfaction in women (Garbe and Ward 2008).

### **1.3. Gender differences**

How the media influences men and women differently has emerged through numerous studies. One example is an investigation by Marian Morry and Sandra Staska (2001). The study's findings surmise that for women reading magazines also predicted self-objectification and for men reading fitness magazines with a tendency towards internalizing, predicted body

shape dissatisfaction but not eating problems, but when men read fitness magazines while being already dissatisfied with their body type, eating problems were present (Morry, Staska 2001; Stice, et. al., 1994).

Other studies further show that when men are exposed to media images depicting muscular-ideal characters these messages definitively lowered their muscle satisfaction (Hopkins, Morrison, Morrison 2003; Hargreaves, Tiggermann 2009). Interestingly, though men's body-esteem is affected by exposure to muscular body types, their self-esteem was not affected (Hobza, Walker, Yakushko, Peugh 2007). However, certain studies says that when men are exposed to ideal image advertisements they become depressed, indicating that more research in the area is needed to reach a consensus on the subject (Agliata, Tantleff-Dunn, 2004). Case in point, when males are exposed to media ideals that emphasize performance attributes, it can contribute to self-evaluation (Farquhar & Wasylikiw, 2007).

Internalization has been found to be an important factor in mediating body dissatisfaction in individuals (Morry, Staska 2001). Culture is indicated also to take a back seat to internalization, according to a study done on Asian-American women that deduced that those who internalized media messages on ideal body types reported lower self-esteem (Lau, Lum, Chronister, Forrest 2006).

#### **1.4. Arab Body Image**

This study attempts to investigate how common body dissatisfaction is in Kuwait and taking from studies done on other countries that are part of the Gulf Cooperation Council. Countries in the GCC are culturally very similar and have experienced similar economic booms because of their reliance on oil wealth; therefore perusing research that was done in those countries can shed light on how Kuwaitis feel about their bodies. Thomas, et al. (2010) explored the pervasiveness of onerous eating habits among female Emirati college students in the United Arab Emirates and the connection between these habits and heightened body image issues. The study indicates that disordered eating attitudes amongst the UAE young female population is comparable to countries like the US, where eating disorders have been present for years.

Another research study conducted on Saudi Arabian schoolgirls (Al-Subaie 2000), examines the dieting behavior of female Saudi teenagers. More than one in six scored positively on the Drive for Thinness subscale. However, the intriguing part is the effect of predictors of dieting behavior; sixteen percent of the school girls from the study who were found to be above the pretest evaluation for the drive to be thin, had previously lived in the west for at least six months. The authors Soh et al. (2006) interpreted the findings as an indicator of exposure to western culture. The limitation here is that traveling to a western country or speaking a western language can result from coming from an affluent or well-educated household and so other variables could be affecting the results (Al-Subaie, 2000; Soh, Touyz, Surgenor 2006).

#### **1.5. Social comparison theory**

The social comparison theory posits that individuals compare themselves to others in order to evaluate or to enhance some aspects of the self. The media is a primary agent of the social comparison theory. Researchers who examined this theory postulate that when individuals compare themselves with universal standards of body image, negative effects on their own body image were often found (Morrison et al., 2003; Suls, Martin & Wheeler, 2002). Frisby (2004) and Thornton and Moore (1993) examined how much race played a role, if any, in body image self-evaluation. As anticipated, the men and women exposed to the highly attractive models of the same race as their own reported high-levels of body dissatisfaction (Morrison et al. 2003). The present study is investigating the media's influence on male and female body image dissatisfaction in an Arab country with a high prevalence of US media. The following are the hypotheses that we will prove in our research:

- 1) The more respondents watch US TV shows, will lead to greater appearance evaluation.
- 2) Comparable effects of TV shows on body dissatisfaction found in Western studies will be observed in our study in Kuwait.
- 3) Watching TV shows with skinny characters will lead to greater body dissatisfaction.
- 4) Female respondents will report greater body dissatisfaction than male respondents.

- 5) Respondents viewing shows with average body types will report less body dissatisfaction than those watching shows with skinny characters.

## 2. Method

A paper-and-pencil cross-sectional survey (N = 233) has been conducted in several classes of a liberal arts college in Kuwait. More than three-quarters of the student sample (75.9%) reported they were Kuwaiti citizens, while the rest reported being nationals of other countries (one respondent did not report his/her nationality). About a half of the sample (48.9%) reported they were males. Seven respondents did not report their gender. Slightly over half of the respondents (50.4%) were from 21 to 24 years old; 46.1% reported they were 18-20 years of age, and 3.4% didn't report their age.

Questionnaires were distributed in a number of classes to ensure higher response rate. The survey was administered in English, which is the official language of the university where the study was administered.

## 3. Discussion

The results of our data analyses show that total TV show viewing is positively correlated with appearance orientation, appearance evaluation, general internalization, pressure, and information. The results also showed that the effect of viewing Western TV shows was more significant than the effect of viewing Arabic TV shows when measuring overweight preoccupation, information, pressure, and general internalization.

We can surmise from these results that media, both Arab and Western images, positively correlate with how respondents in our sample view their body image. This reinforces our hypotheses that watching TV shows will lead to greater body appearance evaluation. As the adolescents in our study consume TV it appears many are using both western images and Arab images as the barometer of the ideal body type. The biggest impact here is overweight preoccupation. Our study finds that Western media images may be eroding the traditional cultural norms of what is considered overweight, with TV shows often depicting thin female models or athletic males. This transmission is also more readily available from Western programs than Arab shows because Arab shows often feature characters dressed in cultural attire, which precludes displaying the body. Furthermore on many variables such as preoccupation, information pressure and internalization Western shows have a greater impact on the body image of the respondents as well. Since in many cases the results of the Western images were more significant than those found from Arab shows such as the pressure to achieve a certain ideal body type, and then we can deduce that effects of media imperialism on body image are indeed present in our study. It appears in cultures such as Kuwait where there is tendency to view the west as being more progressive and setting trends, that the citizens, especially the youth, are turning to western media images. In countries like these where leisure time and disposable income is high, the population often turns to the west as the trend setter of where they should be shopping, how they should be dressed, where they should vacation, etc. To facilitate this they often turn to TV shows where their favorite characters are clad in the latest designer clothes, drink the latest cocktails, and drive the latest trendy car. As Kuwait is a collectivist society with limited individualism citizens and residents may depend on these characters as an outlet and seek to imitate their way of life. Through the social comparison theory people may be asking "What I am missing?" "Why don't I have that?" or "Why don't I look like that?" Along this line, the body itself is a commodity that these TV shows are explicitly or implicitly selling to the audiences in Kuwait. Western images now represent the archetype of beauty, thinness, and athleticism.

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# MIGRATE? STAY? RETURN? THE REASONS FOR THE MIGRATION PROCESS IN BLACK AFRICAN FRENCH SPEAKING POPULATIONS

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## Abstract

This study is a part of a research program aimed at understanding the reasons French-speaking Sub-Saharan African nationals settle in Europe and particularly in France. We decided to use metaphorically, the definition of motivation proposed by Vallerand and Thill (1993) to create an anonymous questionnaire to collect data on the construction of the migration process. All participants (N: 318) are French-speaking Africans, citizens of Sub-Saharan African Francophone countries, aged between 14 and 56 years old. For the analysis, we created two groups: participants who reside in their home country (n: 164), and the migrant population (n: 154). In cases where it was relevant, we subdivided the group of migrants into three sub-groups to facilitate the understanding of migration dynamics. Participants were contacted through social networks and professional and personal relationships in Europe and Africa. The group analysis (Migrants vs. Non-Migrants) shows a predilection for economic reasons as reason to migrate and to settle; the return is explained in terms of economic stability and the ability to provide knowledge and the means of development in the home country. These results confirm those of our 1<sup>st</sup> study (Velandia Torres and Lacassagne, 2012), in respect of the main factors determining the migration process. Despite the progress of this study, it remains one based on a qualitative approach, which does not seek to establish generalities applicable to all Africans wishing to migrate or in a migration process. Rather, it is the understanding of the reasons for migrating in a specific population, allowing access to underlying psychological phenomena. The results of our work provide three main objectives for future study: a) further the understanding of the contents of stereotypes about Africa, present in French society, b) determine more precisely the importance of reference point in explaining the grounds of the migration process and c) advance the understanding of relations between nationals of sub-Saharan Africa and the French population, thanks to the use of the RepMut<sup>1</sup> questionnaire to measure racism and discrimination, among other phenomena.

**Keywords:** *Social representation, Migration, Motivation, Africa, Europe.*

## 1. Introduction: Foreign and immigrant population in France

The French population is estimated by the INSEE (2012)<sup>2</sup> at 65.350000 for January 1st 2012, which is divided into three groups: French, foreigners and immigrants. According to 2012 data, foreigners in France number 3714504, of which 41% (1523505) are citizens of African countries. In more detail, the foreigners from sub-Saharan Africa total 441477 (50.2% M, 49.8% F) and 300407 of this population are between 18 and 59 years old. We can also add 11% of French citizens who are direct descendants of one or two immigrants (6500000 people), and among children of immigrants who are between 18 and 30 years old, half are of African origins<sup>3</sup> (Borrel & Lhommeau, 2010). These statistics reveal a diversification of migration since 1974, with a decrease in the number of immigrants from Europe in contrast to an increase in immigrants from Asia and sub-Saharan Africa.

The relationship between "ethnic" groups has long been a taboo subject, beyond the clichés about the integration of the French North African and Black populations (Caribbean or African descent) in France. Nonetheless, the issue of the integration of newcomers and French

<sup>1</sup> RepMut is a tool developed by the laboratory SPMS (UB) with Synerginov funding (Castel, Velandia Torres, Mangin, Peteuil, & Lacassagne, 2012).

<sup>2</sup> *Institut National de la Statistique et des Etudes Economiques*. Data available on January 29<sup>th</sup> 2013. 2013-census began on January 17<sup>th</sup> 2013.

<sup>3</sup> To circumvent the difficulties in gathering information on the ethnic origins of the French population as a result of the decision of the Constitutional Council (15/11/07) which considers unconstitutional ethnic statistics, existing statistics asked respondents to indicate the nationality of the parents to infer the assumed belonging to one/more ethnic groups.

citizens of immigrant descent continues to be a relevant topic. We saw the opening in July 2004 of the National City of the history of immigration and the creation of the Ministry of Immigration, Integration, National Identity and Solidarity Development in May 2007 (although it was removed in 2010) or the increased number of votes garnered by the “Front National”<sup>4</sup> (Conseil Constitutionnel, 2012).

Regarding the measurement of racism (and more broadly the measurement of discrimination), a TeO survey (2010) traces the panorama of discrimination experienced by immigrants and their descendants in France. This information was ratified by the CERD<sup>5</sup>, which in 2010 published the consideration of reports submitted by the French government, speaking on topics of concern, such as the holding of political speeches of a discriminatory nature and the recent increase in manifestations and acts of racist and xenophobic discrimination experienced by people of immigrant or ethnic groups which obstruct their integration into French society as well as the multiplicity of functions of civil rights defender who, in the multiplicity of their functions, run the risk of neglecting the fight against racial discrimination.

## 2. Method

### 2.1. Objective

This study is a part of a research program aimed at understanding the reasons French-speaking Sub-Saharan African nationals settle in Europe and particularly in France. To do this, we decided to use metaphorically, the definition of motivation proposed by Vallerand and Thill (1993, p. 18.) for whom motivation is a "hypothetical construct used to describe the internal and/or external forces producing the release, the direction, the intensity and the persistence of behavior" to focus on the reasons for migration, for remain in the host country or return to the home country.

### 2.2. Participants

All participants ( $N: 318$ ) are French-speaking Africans, citizens of Sub-Saharan African Francophone countries, aged between 14 and 56 years old ( $M: 27.85$ ,  $SD: 7.84$ ). For the analysis, we created two groups: a) participants who reside in their home country ( $n: 164$ ), aged between 15 and 54 years old ( $M: 26.54$ ,  $SD: 7.42$ ) and b) the migrant population ( $n: 154$ ), aged between 14 and 56 years ( $M: 29.23$ ,  $SD: 8.07$ ). For participants who do not reside in their home country, time spent abroad is between 1 and 35 years ( $M: 10.08$  years,  $SD: 9.17$ ).

### 2.3. Instrument and procedure

On the basis of a questionnaire prepared for a preliminary phase, the questionnaire<sup>6</sup> used consists of 12 questions<sup>7</sup>. Participants were contacted between April 2011 and September 2012 through social networks and professional and personal relationships in Europe and Africa. They responded to a computerized version of the questionnaire.

### 2.4. Data Processing

We calculated Cronbach's alpha and averages. Subsequently, we performed repeated measures ANOVA in an exploration by group (Migrants and Non-Migrants). In cases where it was relevant, we subdivided the group of migrants into three sub-groups: African residents living in a country different from their own ( $n: 48$ ) Africans living in France ( $n: 74$ ) African European residents living in countries other than France ( $n: 32$ ).. For data analysis, the threshold of 0.05 was chosen for the probabilities referring to a particular group and the threshold of 0.01 for the probability in relation to all participants.

<sup>4</sup> Right-wing political party, recognized by its anti-immigration discourse. According to the Declaration of April 25<sup>th</sup> 2012 on the results of the first round for the Presidential elections in France ([www.conseil-constitutionnel.fr](http://www.conseil-constitutionnel.fr)) a total of 36584399 voters (17.55% of voters, 6421426 people) voted FN.

<sup>5</sup> *Comité pour l'élimination de la discrimination raciale.*

<sup>6</sup> For a full explanation of variables and explanatory factors, as well as view factor analysis of the questionnaire, please refer to the article Velandia, C. R., and Lacassagne, M. F. (2012).

<sup>7</sup> Only three questions will be taken into account for the purpose of this communication: the reasons for departure (Q5), the reasons for staying in Europe (Q7) and the reasons for going back to Africa (Q8). We use a 0 to 20 scale.



### 3. Results

*The reasons for departure:* In this study three factors explain these reasons: a) economic reasons and the search for favorable conditions for the immigrant and his/her family, b) war and instability in the special relationship with fear and perceived danger and c) security and access to rights as the element that makes possible plans for the future. The group analysis (Migrants vs. Non-Migrants) shows a predilection for economic reasons<sup>8</sup>. The repeated measure ANOVA showed that there was no interaction effect, so we can assume that the results confirm (for each group, as well as in general) that participants associate departure with seeking economic conditions and that this reason is significantly more important than the other two factors. (economic factors:  $M: 10.58$ ;  $SD: 5.79$ ,  $F(2.632) = 162.89$ ,  $p < .00000$ ,  $\eta_p^2: .340$ ; war and instability:  $M: 5.761$ ;  $SD: 4.994$ ; and security and human rights:  $M: 9.864$ ;  $SD: 6.042$ ).

Sub-dividing Migrants by differentiating according to their respective countries of residence (African country, France, other European countries) also reveals an important role for the same factor, even if the subgroup of migrants who are residents in Africa emphasizes an important role played by reasons related to safety and rights. It is pertinent to mention that the reasons related to a search for better living conditions (economic factors, security and rights) are higher in the non-migrant group. This would seem to indicate a change of opinion related to the migration process itself. The reversal of the trend for reasons related to war and instability would therefore be affected by this change.

*Reasons for staying in Europe:* these reasons were categorized into three factors: a) the advantages of living in Europe, b) the disadvantages of living in Africa, and c) economic conditions, referring mainly to the ability to plan for the future and help the family. The analysis of group averages presents the economic conditions<sup>9</sup> ( $M: 11.90$ ;  $SD: 5.87$ ) as the most frequently cited factor to justify the establishment of the migrant in the host country for the two groups and for the three subgroups that constitute the migrant group with values above average (for African residents:  $M: 11.270$ ,  $SD: 6.684$ , for residents in France  $M: 10.468$ ;  $SD: 5.825$  and European residents living in a country other than France  $M: 10.572$ ,  $SD: 6.505$ ).

The analysis for all participants shows that the difference between factors is significant ( $F(2.632) = 257.32$ ,  $p < .00000$ ,  $\eta_p^2: .448$ ) compared with the other two factors, the advantages in Europe ( $M: 7.127$ ;  $SD: 5.838$ ) or disadvantages in Africa ( $M: 6.109$ ;  $SD: 4.876$ ). However, the ANOVA showed interaction effects. These interactions would seem not to address the reasons for the factor "economic conditions" but the other two factors. Indeed, "advantages Europe" and "disadvantages Africa" seem to be two sides of the same situation at different times of the migration process, considering our results in a temporal perspective. Thus, we consider that it may be a change of reference point which would serve to focus attention on the benefits of being foreign (non-migrants) or the disadvantages of staying in the home country (migrants).

In addition, we consider the hypothesis that these results represent for the migrant participants the expression of a kind of disillusionment produced by the gap between expectations and the stereotypes about Europe, widely shared in developing countries, and the reality of the migration process, which is subject to more restrictions and control by the European authorities.

*Reasons for returning to the home country:* Explained by four factors: a) stability and the possibility of contributing something to the home country, b) insecurity and the failure of the migration process, c) obligations and family problems, and d) separation from the country and family. The results explain the return in the two groups in terms of economic stability and the ability to provide knowledge and the means of development in the home country. For migrants this is considered the only valid option for returning home. In detail, the averages for each subgroup are also higher for this factor than the others. Overall, return is considered by the participants as a possible contribution to the stability and development of the home country ( $M: 13.20$ ;  $SD: 5.19$ ;  $F(3,948) = 110.65$ ,  $p < .00000$ ,  $\eta_p^2 = .259$ ) in a significant way, more

<sup>8</sup> Economic factors include reasons touching on the seeking of the satisfaction of personal and family needs, giving the opportunity to help the family or the avoidance of problems (unemployment/unpaid work).

<sup>9</sup> Economic conditions include reasons that correspond to opportunities for finding a job and satisfactory and stable situation, possibly with a higher standard of training, and the opportunity to help the family.

important than the other reasons: distance ( $M: 8,636$ ;  $SD: 5,468$ ), insecurity and failure ( $M: 8,635$ ;  $SD: 5,624$ ) or family ( $M: 8,793$ ;  $SD: 5,517$ ).

However, the ANOVA data on this issue shows an interaction effect, which limits the progress of our study. This interaction may be explained mainly by the overlapping factors “obligations and family problems” and “separation from the country and family”.

Indeed, these two factors may express a change related to the temporality of the process that makes possible a differentiated regarding view of contact with family. For non-migrants, it would be appropriate to discuss the responsibilities and the need to count on the support of the migrant as a reason for requesting the presence of the people living abroad. For migrants, being abroad, it seems more useful to interpret the same situation as a desire to return (not an obligation), while affirming their commitment to family and the feelings of lack produced by the migration process.

#### 4. Interpretation of Results, Limits and Others ways of Research

This study was designed to account for the reasons which determine the migratory movement of citizens of sub-Saharan Africa at three different times: departure, settling into the host country and the possibility of return.

*Reasons for leaving:* this study updates the reasons participants leave their countries of origin, mainly due to economic conditions. Three elements seem relevant to review: a) the first concerns the relationship between economic and security reasons and access to rights because the scores awarded by participants are similar. It is conceivable that these two elements are complementary as a reason to migrate, but our approach does not allow us to examine more closely the relationship between these two elements. Thus, these elements must be verified subsequently. b) We note the weak results of the war and instability factor, which may be explained from a classical social desirability standpoint, as the evocation of the negative elements of one's country undermines the social identity of the migrant and c) finally, the highest scores for non-immigrants. This seems to indicate that the stereotypes associated with the migration process and life in Europe, have greater impact in the African continent are less important once travel has already taken place.

*Reasons for staying in Europe,* the results of this study, as well as those presented in a previous publication (Velandia Torres & Lacassagne, 2012) confirm the significant choice of economic conditions as the most important reason to settle down on the European continent. In light of the complex relationship established between the factors "the advantages in Europe" and "disadvantages in Africa", we advanced the interpretation that this dichotomy represents the two sides of a single situation, which refers to identification of the role of reference point in our study.

*Reasons for returning to the home country:* the results strongly consider a return with the economic means and the opportunity to contribute to the country's development. This preference expressed by migrant participants seems consistent with the reasons for leaving or staying in Europe and is, as we have already noted, the only socially rewarding way to return to the home country. Responses citing separation from the country and family, as well as obligations appear to play a much smaller role, and could be explained as avoidance of any manifestation of weakness or return without success.

Finally, and despite the progress of this study, it remains one based on a qualitative approach, which does not seek to establish generalities applicable to all Africans wishing to migrate or in a migration process. Rather, it is the understanding of the reasons for migrating in a specific population, allowing access to underlying psychological phenomena. The results of our work provide three main objectives for future study: a) further the understanding of the contents of stereotypes (Bourhis & Gagnon, 1994; Bourhis & Leyens, 1999; Castel, 2007) about Africa, present in French society (from the analysis of different corpora of written communication), b) determine more precisely the importance of reference point in explaining the grounds of the migration process and c) advance the understanding of relations between nationals of sub-Saharan Africa and the French population, thanks to the use of the RepMut

questionnaire to measure racism and discrimination (Dovidio, Gaertner, & Kawakami, 2010; Légal & Delouvée, 2008), among other phenomena.

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## Appendix

**Table 1:** Results by groups in terms of the reasons for departure, staying in the host country and going back to the home country

Reasons for:	Factors	Non Migrants (164)	Migrants (154)	TOTAL	$\alpha$
		M (SD)	M (SD)	M (SD)	
Departure	Economic factors	11.864 (5.251)	9.22 (6.04)	10.586 (5.79)	.8731
	Security and Rights	11.141 (5.625)	4.50 (4.51)	5.761 (4.99)	.8301
	War and instability	6.945 (5.149)	8.50 (6.19)	9.865 (6.04)	.7387
Staying in the host country	Economic conditions.	12.991 (5.249)	10.74 (6.21)	11.90 (5.84)	.8218
	Advantages in Europe.	9.233 (5.516)	4.88 (5.33)	7.13 (5.84)	.8617
	Disadvantages in Africa.	6.946 (4.793)	5.22 (4.82)	6.11 (4.88)	.8203
Going back to the home country	Stability/contribution to the home country	14.173 (4.765)	12.17 (5.45)	13.20 (5.20)	.8108
	Insecurity/failure of the migration process	10.515 (5.199)	6.63 (5.38)	8.64 (5.62)	.7917
	Obligations and family problems	10.692 (4.989)	6.77 (5.34)	8.79 (5.52)	.8085
	Separation from the country and family	8.983 (5.073)	8.27 (5.85)	8.64 (5.47)	.8018

## **‘HAMAS PRACTISES ITS RIGHT TO RESIST THE OCCUPATION’: NEGOTIATING CULPABILITY FOR THE PALESTINIAN/ISRAELI CONFLICT**

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### **Abstract**

*Objectives:* Previous discursive social psychological research conducted in the political context of the Palestinian / Israeli conflict has studied how speakers construct and argue for their preferred versions of identities, actions and outcomes to the conflict. Little research, however, has examined how particular categorizations of self and others are used to account for potentially culpable actions and to blame others for the ongoing conflict. The aim of this paper is to explore how leaders of Hamas, a major party to the conflict often neglected by researchers, use membership categorizations to justify Hamas ‘actions, and to resist and to attribute blame in this context. *Design:* The data were drawn from a series of journalistic interviews that were conducted with three senior figures from the Palestinian Hamas political movement in the months leading up to the invasion of Gaza by Israel in December 2007. *Method:* We used membership categorization analysis to examine the membership categories and category-bound attributes that news interviewers used in questions to Hamas leaders about responsibility for potentially culpable actions, and how the interviewees take up, challenge, or rework these categorizations in presenting their own versions of groups, actions and events. *Findings:* The news interviewers deploy categories that are bound up with terrorism while the interviewees develop alternative categorizations of resistance. Interviewers construct Palestinians as victims of Hamas’ actions while interviewees construct them as victims of Israeli aggression and international indifference. In warranting their alternative versions, the interviewees align current Palestinian actions with those previously taken by Western nations in resisting illegitimate occupations and contrast current behaviors of the international community with those of the past. *Conclusions:* The membership categorizations and category-bound attributes found here allow the interviewees to justify their actions and to hold Israel as morally culpable for past and ongoing events in the conflict. At the same time, they function to attribute to the wider international community responsibility for addressing the events of the ongoing conflict. Moreover, by drawing upon shared historical understandings, the speakers produce categorizations that are designed to resonate with the political concerns of an international audience.

**Keywords:** *Discourse, Membership categorization analysis, Culpability, Palestinian/Israeli conflict, News interviews.*

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### **1. Objectives**

Previous discursive social psychological research conducted in the political context of the Palestinian / Israeli conflict has studied how speakers construct and argue for their preferred versions of actions, identities, and outcomes to the conflict. For example, in relation to possible actions, Kuzar (2008) notes that even apparently straightforward terms such as the Palestinian’s ‘right of return’ can be used in different ways for speakers to argue for very different outcomes to the dispute. Similarly, research into identities has shown how these become bound up with ongoing events. Witteborn (2007), for example, points out that Palestinians construct an identity that is bound up with the notion of resistance, appealing to notions of a common humanity in arguing for social actions that will bring about change. In the broader context of the Middle East more generally, other research has examined how different actors seek to legitimize national and international violence. Amer (2009), for example, in a study of New York Times op-ed articles notes that the authors of articles relating to the Second Palestinian Intifada constructed the events in question in ways that worked to de-legitimize them. Alternatively, Gavriely-Nuri

(2008) has shown that potentially controversial actions can be transformed into part of everyday life, as in Israeli political discourse about the Second Lebanon war.

Although these and similar findings offer some understanding of elements of the Palestinian/Israeli conflict, little research as yet has been conducted into how the actors involved in the conflict categorize themselves and their actions. This lack of research is especially discernible in relation to one of the parties involved, Hamas, whose voice has almost invariably been omitted from previous work. Here, we examine Hamas leaders' accounts of the political situation between Hamas' attaining power in Gaza in 2006 and the subsequent invasion of the Gaza strip by Israel in December, 2007. These accounts are especially important in developing an understanding of the Palestinian / Israeli conflict, in view of the stance adopted by Hamas that Palestinian land should be protected by jihad as a religious duty and that all Arab states should support Hamas mujahideen (jihad fighters) (Schanzer, 2008). This study examines how Hamas leaders categorize the parties involved in the Palestinian / Israeli conflict and how such categorizations attribute, challenge and resist accountability for potentially culpable events occurring in the course of the conflict.

## **2. Design**

The data were drawn from a series of journalistic news interviews that were conducted with three senior figures from the Palestinian Hamas political movement in the months leading up to the invasion of Gaza by Israel in December 2007. These articles were identified through searches of online news archives for freely available items written in English that appeared in the period between Hamas coming to power in Gaza on 25th January 2006 to immediately prior to the Israeli airstrikes and subsequent invasion of Gaza begun on the 27th December, 2008. Articles were limited to those involving individuals that were recognized as having the credentials and entitlements to speak for Hamas in offering an authoritative position in the media. This resulted in a final data set of five interviews conducted with one of three individuals widely regarded as leaders of the Hamas movement: Khaled Meshaal, President of Hamas, Mahmoud al-Zahar, co-founder of Hamas, and Mousa Mohammed Abu Marzook, deputy chief of the Hamas political bureau.

## **3. Method**

We analyzed the data using discourse analysis (McKinlay & McVittie, 2008), drawing in particular upon recognized principles of membership categorization analysis (Sacks, 1992; Schegloff, 2007). The focus of analysis was on the categories that participants invoked, resisted and otherwise attended to in the course of their talk, and the category-bound attributes and activities associated with these categories. Particular attention focused on the membership categories and category-bound attributes that interviewers used in their questions about responsibility for culpable actions and on the ways that these constructions were taken up by interviewees in their responses. We examined also the categories and category-bound attributes that interviewees produced in their responses, and how these functioned to justify the actions of the interviewees and of their supporters and to criticize others for their actions in the Palestinian / Israeli conflict.

## **4. Findings**

The news interviewers deployed categories that were bound up with terrorism while the interviewees developed alternative categorizations of resistance. Interviewers constructed Palestinians as victims of Hamas' actions while interviewees construct them as victims of Israeli aggression and of international indifference. In warranting their versions, the interviewees aligned Palestinian actions with those previously taken by Western nations in resisting illegitimate occupations and contrasted current behaviors of the international community with those of the past.

We see such categorizations in action and their effects in the exchange in Extract 1. This extract comes from an interview with Khaled Meshaal conducted at an unspecified location by Jeremy Bowen, Middle East editor of the BBC (Bowen, 2006). This extract follows a discussion of potential changes to the Hamas charter.

*Extract 1*

- |    |         |  |
|----|---------|--|
| 1  | Bowen   | Hamas has been democratically elected but Hamas is an organisation that is     |
| 2  |         | listed by the Americans and the EU as a terrorist group. So they will continue |
| 3  |         | to put more pressure on you, we can assume, than they put on the Israelis. So  |
| 4  |         | what are you going to do about it? Will you want to stick with your truce or   |
| 5  |         | are you going to go back to attacks on Israelis?                               |
| 6  |         | This is not our problem. This is the problem of the international community    |
| 7  | Meshaal | and the nations that deal with the Israeli-Palestinian                         |
| 8  |         | conflict.  |
| 9  |         | Hamas won an election. It acquired the legal mandate through voting and at     |
| 10 |         | the same time Hamas practises its right to resist the occupation.              |
| 11 |         | Now the international community faces a contradiction. It considers Hamas a    |
| 12 |         | terror organisation and this is an unfair description of Hamas because Hamas   |
| 13 |         | does what the British and French did when they were up against the Nazi        |
| 14 |         | occupation.  |
| 15 |         |  |

Bowen's question in Extract 1 relies on category ascriptions and category-bound activities in introducing the issue of accountability for violence. Bowen categorizes Hamas as a group that has been 'democratically elected' but also as 'a terrorist group' and introduces also the category of 'the Americans and the EU' who respond to Hamas' activities by applying 'pressure'. This category environment makes for two possible future actions, with Hamas either 'stick[ing] with your truce' or returning to 'attacks on Israelis'.

Here, Meshaal in response reworks Bowen's suggested category descriptions by describing any inconsistency in categorization as a 'problem' of 'the international community and the nations that deal with the Israeli-Palestinian conflict'. He ascribes to Hamas a different category membership comprising legitimate activities that are inconsistent with the activities of a 'terrorist group', namely that Hamas 'won an election' and that it 'acquired the legal mandate'. These provide the grounds for his claim that 'Hamas practises its right to resist the occupation', consistent with legitimate activities. Meshaal's further category of 'the British and French' again suggests morally acceptable behaviour that can be contrasted with actions of the category 'Nazi' and its culpable action of 'occupation'. These categorizations warrant Meshaal's description of Hamas as people carrying out democratic and morally acceptable activities. Thus Bowen's categorization of Hamas as 'a terrorist group' becomes 'a contradiction' and 'an unfair description', with any problem falling to be addressed by international actors rather than by Hamas.

Thus, in Extract 1, we see Meshaal challenge Bowen's proposed categorization of Hamas and its activities and offer instead his own version. This however leaves open a further ground for criticism of Hamas' actions, namely that even if justified they result in suffering for the Palestinian people. We see this potential criticism taken up in Extract 2.

Extract 2 is taken from an interview with Mousa Mohammed Abu Marzook conducted in Damascus by Gabriela Keller of Spiegel Online (Keller, 2006). This extract follows a discussion of possible agreement between Hamas and Fatah on the establishment of a Palestinian state.

*Extract 2*

- |   |         |   |
|---|---------|---|
| 1 | Keller  | After the abduction of the soldier, Israel began to bomb Gaza. Would        |
| 2 |         | that not suggest that such actions only lead to violence against            |
| 3 |         | Palestinians?   |
| 4 | Marzook | The Israeli aggressions will never stop anyway. In the last two weeks       |
| 5 |         | alone, 11 Palestinian children have been killed in attacks. Now it is about |
| 6 |         | one soldier who was taken in combat. And suddenly the whole world           |
| 7 |         | risers up and demands that he be set free. At the same time there are more  |
| 8 |         | than 400 Palestinian children in Israeli jails. No one asks about them.     |
| 9 |         |   |

Extract 2 begins with a question in which Keller describes an action ‘the abduction of the soldier’ that she associates with negative consequences for the Palestinians in that ‘Israel began to bomb Gaza’. Her formulation that ‘such actions only lead to violence’ constructs the abduction of the soldier as more morally culpable than the consequent actions of Israel and she treats Marzook as responsible for dealing with this criticism.

Marzook’s response that ‘the Israeli aggressions will never stop anyway’, takes up the category ‘Israel’ introduced by Keller but reworks the actions of category members as proactively violent rather than being predictable reactions to Hamas’ activities. Marzook seeks to warrant this claim by introducing the category of ‘Palestinian children’, a categorization that makes relevant the defenceless status of those who belong to the category. Marzook argues that members of this alternative category suffer as a result of the culpable actions of members of the ‘Israeli’ category, stating that some have ‘been killed in attacks’ and that ‘there are more than 400 Palestinian children in Israeli jails’. The rhetorical effect is heightened by reference to the timescale involved, namely ‘the last two weeks alone’. He also emphasises the suffering of ‘Palestinian children’ by contrasting the numbers involved (‘11 Palestinian children’, ‘more than 400 Palestinian children’) with ‘one soldier’, and by contrasting external responses to the events in that ‘the whole world’ responds to the action involving the soldier and ‘no one’ about Palestinian children. Thus, Marzook constructs Palestinian children as victims, not of reprisals resulting from the actions of Hamas but instead of proactive violence committed by Israel and of the lack of response from the international community.

## 5. Conclusions

The membership categorizations and category-bound attributes found here allow the interviewees to justify their actions and to hold Israel as morally culpable for past and ongoing events in the conflict. Moreover, by drawing upon shared historical understandings, the speakers produce categorizations that are designed to resonate with the political concerns of an international audience. These ‘media templates’ (Kitzinger, 2000) provide ready-made sets of associations that are immediately recognizable by a media audience and offer up frames of reference within which the responsibility for previous and ongoing violence in the Palestinian / Israeli conflict can be located, and the consistency of response (or lack of response) by the international community can be viewed. It is within this category framework, carefully designed to orient to audience concerns, that Meshaal’s claim that ‘Hamas practises its right to resist the occupation’ falls to be understood. Thus, the categorizations and category-bound attributes in play function (i) to legitimize Hamas’ actions in the conflict, (ii) to present Israeli actions as constituting proactive violence and thereby as morally culpable, and (iii) to criticize the wider international community for apparent indifference and to hold them responsible for addressing the events of the ongoing conflict.

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## PSYCHOLOGY OF POLITICAL CULTURE OF CONTEMPORARY RUSSIAN YOUTH

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### Abstract

Political culture is a foundation for the building of real politics. In this regard studying youth political culture proves to be especially important as the youth, being in the general context of social and political changes, has a special status that is determined by its social and political diversity. Our investigation showed that psychological originality of youth political subculture in Russia is revealed itself in phenomena of «a valuable dissonance», «a social extraversion», political apathy against the expressed social activity. The youth political subculture is characterized by the potential of political activity which can be realized at change of a political situation in the country. Character and form of manifestation of such activity will depend to a certain extent on the concept of the state youth policy and ways of its realization.

**Keywords:** *Psychology of political culture, Youth political subculture, Political consciousness, Political behavior, Youth policy in Russia.*

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### 1. Introduction

Ways that nation takes in order to find answers to vital questions of being are mostly determined by its political culture. Political culture is a foundation for the building of real politics. Cognition of the psychological component in political culture opens prospects for political forecasting, making specific political managerial decisions and effectively implementing them not only in our country, but in the whole world under conditions of rapidly increasing cultural and economic globalization. Having a specific political and cultural «genotype», Russia has been developing under the conditions of permanent conflict between various subcultures during last centuries. Representatives of these subcultures speak different languages and practically don't understand each other. And while political culture of the Western Europe gives subjects of political life an opportunity to coordinate their interests avoiding fierce conflicts, Russian political culture still hasn't stored essential potential. Therefore, we need to find common language to arrange a dialogue between representatives of different subcultures. Solution of this urgent problem demands enlarging the space of general political senses and studying individual and group «value portraits» in order to determine their points of contact. In this regard studying youth political culture proves to be especially important as the youth, being in the general context of social and political changes, has a special status that is determined by its social and political diversity. As Russian political leaders point out during press conferences, we should pay intent attention to youth as a main resource of society that will influence political decisions very soon.

### 2. Design

#### 2.1. Objectives

The purpose of the conducted investigation (2006, 2012) is to research of psychology of youth political subculture.

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Research problems:

- to conduct theoretical and empirical research of youth and «adult» political subcultures and to make their comparative analysis;
- to reveal a psychological originality of youth political subculture;
- to develop recommendations about formation and implementation of youth policy in

Russia.

Subject of research is psychological component of political culture.

## **2.2. Objects of research**

Representatives of two dominating in the society of political subcultures: subculture of young people and subculture of adults.

In research of 2006 the experimental group was made of representatives of student's youth of humanitarian faculties of St. Petersburg State University and the St. Petersburg state engineering and economic university. Age of respondents – from 18 to 25 years, the number of people is 100: (43 % from them-men and 57%-women).

The control group was made by adults aged from 40 till 60 years, having the higher education and socially included in significant professional activity of a technical and humanitarian profile, in number of 70 people (40% of them are men, 60% of them are women).

Students of humanitarian faculties of St. Petersburg State University took part in research of 2012. Age of respondents – from 18 to 25 years, the number of people is 100: (37% of men, 63% of women).

## **3. Methods**

Within political psychology the psychological component of political culture is presented by such categories as political consciousness and political behavior (Yuryev A.I. 1992, 1996; Solovyeva M.A., 2006). For empirical research of these categories we made the special package of psychological techniques.

For research of political consciousness the techniques possessing complex diagnostic opportunities were chosen:

- Technique «Meaning of life orientations» by D.A. Leontiev (Leontiev D.A., 1992);
- Technique «Valuable orientations» by V.A. Yadov (Yadov V.A., 1979);
- S. Schwarz's test directed on studying of values dominating in culture (see Lebedeva N.M., 2000);

- «Cultural and Valuable Orientations» test by J. Tausend (see Platonov Yu.P., 1995)

- Author's questionnaires by M.A. Solovyeva (Solovyeva M.A., 2006) were used for empirical research of political behavior:

- Questionnaire «Types of political behavior»;
- Questionnaire «Form of political behavior».

The empirical data obtained as a result of research were subjected to primary statistical processing, research on reliability of distinctions, to discriminant and cluster analyses, and also the comparative analysis and psychological interpretation.

## **4. Results and Discussion**

### **4.1. Political consciousness**

Higher level of intelligence of life ( $p \leq 0,01$ ) and more rational approach to life ( $p \leq 0,01$ ) is peculiar to young people, than for adult. They are satisfied with the existence as a whole, focused on emotionally positive perception of life and creating activity. In addition, young people show existence of the long-term vital goals and the expressed aspiration to their realization that allows to speak about the general activity and vital force, characteristic for them.

The valuable sphere of political consciousness of youth is characterized by a contradiction is signified as «a valuable dissonance». This phenomenon consists in aspiration of young people to reach the values-purposes traditional for the Russian culture directed on preservation and development of society, with assistance of values- means of individualistic

orientation. It testifies to updating of system of values-means in consciousness of young people that it is possible to consider as search by youth of a way of adaptation to changing socio-political conditions in the country. However such contradiction can complicate the relations of the young man with society and with itself.

Structural features of the valuable sphere of political consciousness of youth are signified by us as «a social extraversion». This phenomenon is that they strive to reach the value-purpose (existential categories) with assistance of values- means having a pronounced social vector and assuming high degree of social activity. Adult people are distinguished by «a social introversion», i.e. existence of a reflection, concentration on an inner world and spiritual experiences.

The signs discriminating youth subculture from «adult», are the values connected with active search of meaning of the life and the vital purposes, with self-determination and achievement of success in society. Thus, being guided by own vital purposes and plans, young people don't correlate them to the public purposes, and own future with the country future. For young people the values connected with searches of spirituality and internal harmony aren't priority. All this can be considered as elements of political and cultural immaturity of youth.

Estimating modern Russian culture, young people showed eclecticism, found in it elements of all three types of cultures: traditional, modern and dynamically developing. This assessment corresponds to a real situation in society as the modern Russian political and cultural space is characterized by extreme degree of heterogeneity and the uncertainty complicating self-determination of youth (overcoming of crisis of identity).

#### **4.2. Political behavior**

Young people from all types and forms of political behavior, first of all, are focused on political activity. It means that they are interested in policy, analyze political processes and estimate decisions of political leaders.

So, for example, 68% (2006) and 74% (2012) of respondents have the view of political problems and ways of their permission, and 22% (2006) and 17% (2012) students even expressed readiness to be engaged in political activity professionally. Let's note that 66% (2006) and 62% (2012) young people belong with interest and respect for traditions of the country and feel a civil liability for destiny of relatives. The accurate and consistent state policy of rather national values and the priorities forming and formulating the purposes and ideals of modern Russia is actively demanded by students.

Despite the expressed interest to policy, the youth doesn't show political activity that it is possible to explain as political apathy. For example only 4 % (2006) and 5 % (2012) respondents participate in meetings and demonstrations and only 5% (2006, 2012) young people consist in political party or political movement. Unlike youth, representatives of the elder generation are characterized not only the expressed interest to policy, but also essential by higher level of political activity ( $p \leq 0,001$ ).

### **5. Conclusions**

The youth political subculture possesses a psychological originality, which is revealed itself in phenomenon of «a valuable dissonance», «a social extraversion», political apathy against the expressed social activity.

Being guided by own vital purposes and plans, young people don't correlate them to the public purposes and their own future with the country future.

The youth political subculture is characterized by the potential of political activity which can be realized at change of a political situation in the country. Character and form of manifestation of such activity will depend to a certain extent on the concept of the state youth policy and ways of its realization.

On the basis of the obtained empirical data can be formulated recommendations about application of the received results at design and realization of the state youth policy in the Russian Federation:

1. within the concept of the state youth policy the measures directed on resolution of conflicts in the valuable sphere of youth, and also on coordination of the public and personal purposes have to be provided ;
2. it is necessary to be guided by conviction and proof methods at realization of strategy of youth policy concerning formation of youth values system, avoiding thus manipulative ways of impact on youth audience;
3. developing state standards of higher education in a cycle of humanitarian, social and economic disciplines it is necessary to include the subject matters which helping young people to be guided with political and cultural space of society for the purpose of achievement by them a political and cultural maturity.

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## INTEGRATION BETWEEN “SUBJECTIVE” AND “INTERSUBJECTIVE” MEASURES FOR THE ASSESSMENT OF WORK-RELATED STRESS RISK

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### Abstract

This study aims to address the issues of negative affectivity (NA) and common method variance in relation to the exclusive use of self-report measures for evaluating work stress. In particular, it has two main objectives: (a) evaluating the role of NA in the assessment of work stress; (b) verifying the efficacy of an integrated approach that combines self- and hetero-evaluation for assessing work stress. Two instruments were administered to 1750 workers of a services organization: the Q<sub>u</sub>-Bo Test, for workers' self-evaluation of both stressors and strain, and the V.I.S. Method for the hetero-evaluation of risk factors by the organization's stakeholders, including the occupational physician. Results show that NA moderates the relationship between the Interpersonal Conflict risk factor and work stress in terms of Cardiovascular Symptoms and Job Satisfaction. High NA workers display higher Cardiovascular Symptoms associated with an increase in Interpersonal Conflict, while low NA individuals present lower Job Satisfaction in case of higher Interpersonal Conflict. With reference to the second objective, results show that the integrated approach allows prediction of job satisfaction, proving its superiority over self-evaluation, as it can contain both common method variance and NA.

**Keywords:** *Work stress, Common Method Variance, Negative Affectivity, Integrated Approach, Risk Assessment.*

### 1. Introduction and objectives

Traditionally, work-related stress risk assessment makes use of subjective measures to detect stressors as well as consequences in terms of strain (Nagami, Tsutsumi, Tsuchiya, & Morimoto, 2010; Sein, Howteerakul, Suwannapong, & Jirachewee, 2010). In keeping with the guidelines in the psychological literature of reference, it would be difficult to disregard self-report measures, considering the individual nature of the perception of the sources of stress as well as their consequences in terms of strain (Cox, Griffiths, & Rial-González, 2000; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Spector, 2006; Di Sipio, Falco, Kravina, & De Carlo, 2012).

However, many studies have criticized the exclusive use of self-report measures to detect both antecedents and consequences within the same research design (Grebner, Semmer, & Elfering, 2005; Liu, Spector, & Jex, 2005). Self-report measures are considered "subjective", and thus more susceptible to distortion than those deemed more "objective", such as assessments carried out by an external evaluator or supervisor (Semmer, Zapf, & Greif, 1996; Falco, Kravina, Girardi, Dal Corso, Di Sipio, & De Carlo, 2012). According to Cox, Griffiths, and Rial-Gonzales (2000), subjective measures alone, despite their evident centrality and importance, are insufficient. In particular, these authors identified two main issues related to the use of self-report measures, namely the influence of negative affectivity and common method variance (Girardi, Falco, Dal Corso, Kravina, & De Carlo, 2011).

This study has two main objectives: (a) evaluating the role of NA in the assessment of work stress; (b) verifying the efficacy of an integrated approach that combines self- and hetero-evaluation for assessing work stress.

## 2. Design and Methods

The survey was conducted in a service industry operating in Northern Italy. In the first phase, in the presence of a doctor and a work psychologist, the Test of work-related stress risk assessment in relation to organizational well-being, Q<sub>u</sub>-Bo (De Carlo, Falco & Capozza, 2008), was administered to all employees preserving anonymity and privacy. 1750 workers completed the test, 61.4% of whom were female and 38.6% - male. 25% of the workers had under 10 years of service, 28.1% between 11 and 20, and the remaining 49.9% over 20 years of service; 80% of workers were employed full-time.

In the second phase, which consisted in filling in the second form of the V.I.S. Method (Sarto et al., 2009), five similar groups of workers were identified according to the different positions held within the organization: Managers, Middle Managers, 1st level employees, 2nd level employees, Workers. Form 2 was completed, within the various focus groups, with the cooperation of the competent physician, the prevention and protection service manager, the representatives of the workers' safety committee, the human resources director, managers (heads of department in the company), and an outside specialist (work psychologist) who coordinated the focus groups.

## 3. Findings

Data entry and analysis were performed using SPSS for Windows Version 17.0. To test the hypothesis that NA moderates the relationship between conflict with colleagues and work stress, two hierarchical regression analyses were conducted, taking as dependent variables, in one case, job satisfaction (obtained from the average of the five dimensions of satisfaction) in the other, cardiovascular symptoms, the measurement of which is taken from the psychophysiological strain scale.

Results show that NA moderates the relationship between the Interpersonal Conflict risk factor and work stress in terms of Cardiovascular Symptoms and Job Satisfaction. High NA workers display higher Cardiovascular Symptoms associated with an increase in Interpersonal Conflict, while low NA individuals present lower Job Satisfaction in case of higher Interpersonal Conflict. With reference to the second objective, results show that the integrated approach allows prediction of job satisfaction, proving its superiority over self-evaluation, as it can contain both common method variance and NA.

## 4. Conclusions

The integrated approach has therefore confirmed its strong points: first, the combination of the two methods reduces the influence of common method variance which, as stated, is a limit to the exclusive use of self-report measures. Second, the use of self- and hetero-evaluation allows to synthesize two different perspectives – the workers' and the stakeholder's – in a single assessment, taking into account a greater amount of information and overcoming the subjectivity inherent in self-evaluation. Third, the integrated multi-method approach limits the role of individual resources in the process of assessment of work-related stress.

In conclusion, the combination of methods also allows a better and more thorough assessment of work-related stress risk, highlighting complementary and/or additional aspects to those emerging from self-evaluation. It should not be overlooked, however, that the multi-method approach also has significant limitations because of the complexity and the costs of its applications. This partly explains the still limited spread of this approach within organizations.

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## MEANING OF MONEY: DIFFERENCES BETWEEN ADOLESCENTS WITH AND WITHOUT EMOTIONAL AND BEHAVIORAL PROBLEMS

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### Abstract

The three-staged cluster sampling included students from six mainstream schools and the Strengths and Difficulties Questionnaire (SDQ) was completed for 1094 students for 11 to 16 years. A total of 110 of adolescents were achieved SDQ cut-off scores for the abnormal range and 632 of adolescents were identified as a group of adolescents without emotional and behavioral problems by SDQ cut-off values for the normal range. Multidimensional meaning of money was explored by questionnaire measuring affective, behavioral and symbolic dimensions of money among adolescents with and without problems. Results indicated that students with problems evaluated more highly behavioral (investing, saving, owning, spending) and symbolic high status components of money compared with non-problematic pupils' evaluations, whereby the dominant affective meaning of money was ambivalent (positive versus negative) for adolescents with emotional and behavioral problems. Additionally, content analysis of open-ended questions revealed that the meaning of money for adolescents without problems was primarily functional in nature.

**Keywords:** *Meaning of money, Emotional and behavioral problems, Adolescents.*

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### 1. Introduction

The meaning of money has been viewed differently by different scholars depending on their backgrounds involving multiple disciplines - economics, sociology and psychology (Furnham & Argyle, 1998; Milkovich & Newman, 2008). Viewing money from the psychological perspective, money not only represents a functional perspective (medium of exchange, unit of account, a standard of value and payment), but also contains affective, symbolic and behavioral components indicating a good-bad dimension, a power and prestige dimension, and a money management dimension (Mitchell & Mickel, 1999).

Research findings (Rose & Orr, 2007; Furnham & Argyle, 1998; Mitchell and Mickel, 1999) give the base for the conclusions that money is seen as a powerful motivator that shapes peoples' behaviors, moral values and actions, self-esteem and social status. How money and attitudes to money act to influence different people's behaviors, and especially – young peoples' deviant behavior, is of central relevance to the arena of new research questions.

The literature that deals with psychological meaning of money among deviant adults and adolescents is limited. As shown by Zhou, Vohs, and Baumeister (2009), when adults handle money, they can withstand rejection or pain more effectively; and Blaszczynski and Nower's (2008) findings among adult gamblers show that serious problem gamblers tended to view money as a symbol of power, prestige and success rather than a medium through which they could acquire material benefits. Also, among adolescents (Kõiv, 2007), the meaning of money of bullies was dominantly expressed by terms of power and success, whereby affective meaning of money distinguishes between participants of bullying behavior and nonparticipants of school bullying.

The purpose of the study was to compare the multidimensional (affective, symbolic and behavioral) meaning of money among two samples of students - adolescents with and without emotional and behavioral problems.

It was hypothesized that adolescents with emotional and behavioral problems evaluate more highly symbolic meaning of money in terms of power and success compared with evaluations of adolescents without problems.



## 2. Method

### 2.1. Study design

A three-stage stratified cluster design was used for sampling: during stage one stratified selection of schools from one region of Estonia with a probability-proportional-to-size method was performed and six mainstream schools were selected; during stage two one class per 5-7 grades in each school was randomly selected and from which all students were surveyed; during stage three students with and without emotional and behavioral problems were identified.

### 2.2. Sample

Overall, there were 1094 5-7 grades students from six mainstream schools: about half of them were boys ( $N=515$  boys) and girls ( $N=579$ ) and the average age of this sample was 14.10 ( $SD = 0.96$ ).

### 2.3. Instruments

Adolescents with and without emotional and behavioral problems were selected on the basis of self-reported measure – The Strengths and Difficulties Questionnaire (SDQ, 2009). The original SDQ (Goodman, 1997) consists of 25 statements rated on a three-point scale and divided into five subscales: Conduct Problems, Emotional Problems, Hyperactivity, Peer Problems, and Prosocial Behavior. Each of the items of the SDQ is scored on a 3-point Likert scale with 0 = not true, 1 = somewhat true or 2 = certainly true, with higher scores indicating greater problems, except for prosocial behavior, where a higher score indicates more positive behavior. The sum of the scores of all items (except the prosocial scale) produces a total score that reflects the overall measure of emotional and behavioral problems, and standardized data are available concerning cut-off scores in the Internet at [www.sdqinfo.com](http://www.sdqinfo.com). According to these cut-off points, subjects were classified as “normal”, “borderline” or “abnormal” on the total difficulties score. Adolescents achieving SDQ cut-off scores for the abnormal range score were defined as a subgroup of students with emotional and behavioral problems, and a group of students without emotional and behavioral problems formed according to SDQ cut-off values for the normal range. The rest of the sample was classified as „borderline” and was not included in the analyses.

The meaning of money was measured by questionnaire consisting of 14 rating scales on eight-point Likert scale from Strongly disagree (0) to Strongly agree (7). The scales were grouped to form three dimensions of meaning of money: Symbolic (four items: achievement and recognition; freedom and control; power; status and respect), affective (six items: evil, good, important, shameful, useless, valuable), and behavioral (four items: investing, owning, saving and spending of money) according to Mitchell and Mickel's (1999) classification. Additionally, questionnaire consist open-ended questions asking to give a free explanation about meaning of money.

## 3. Results

Using SDQ cut-off scores within whole sample ( $N=1094$ ), 110 (10.01%; average age: 14.27;  $SD=0.99$ ) of adolescents were classified as students with emotional and behavioral problems being abnormal in total SDQ scales, and 632 (57.8%; average age: 13.98;  $SD=0.83$ ) of adolescents were classified as normal cut-off range scores, whereby the borderline cut-off values was not included in the study.

Table 1 show the mean scores among three basic dimension items among adolescents with and without emotional and behavioral problems. Using *t*-test, several differences between students with and without emotional and behavioral problems were significant (Table 1): (1) students with behavioral problems evaluated more highly power, status and respect as a symbolic meaning of money than did students without problems; (2) students with problems evaluated more highly positive (good, important) as well as negative (evil, shameful, useless) affective characteristics of money than did students without problematic behavior; (3) students with problems evaluated more highly behavioral characteristics (investing, saving, owning, spending) of money compared with students without problems; (4) there were no statistically

significant differences between adolescents with and without problems in the area of value of money and in two aspects of symbolic meaning of money – achievement and recognition, and freedom and control.

**Table 1:** *Dimensions of meaning of money (mean scores) among students with and without emotional and behavioral problems and t values*

Dimensions of money: symbolic (S), affectional (A), behavioral (B)	Pupils with problems	Pupils without problems	t values
Achievement and recognition (S)	3.13	3.15	0.10
Freedom and control (S)	3.51	3.45	0.25
Power (S)	4.57	3.73	3.48**
Status and respect (S)	4.54	3.96	2.05*
Good (A)	5.74	5.04	3.93**
Important (A)	5.91	5.05	5.67**
Valuable (A)	5.11	5.32	1.33
Evil (A)	2.99	1.34	7.09**
Shameful (A)	1.95	1.18	4.05**
Useless (A)	1.98	0.91	5.56**
Investing of money (B)	5.12	4.57	2.81*
Saving of money (B)	5.72	4.80	5.27**
Owning of money (B)	5.54	4.80	4.40**
Spending of money (B)	4.07	3.62	2.05*

\* -  $p < 0.05$ ; \*\* -  $p < 0.01$

Two studygroup students' reports of the open questions about the meaning of money were collapsed into nine categories in terms of content using quantitative content analysis, and the analyze of results consists statistically significant differences measured by  $\chi^2$  test and is presented in Table 2.

Most frequently both groups of adolescents revealed that the meaning of money for them was connected with functions of money: store of value, unit of payment, unit of account and medium of exchange, whereby adolescents without problems connected more frequently the first function of money with restriction that people cannot buy close relationships with other people and positive/secure feelings with others. The chi-square analysis results showed that there was a statistically significant difference between two groups – adolescents with problems stated more often than non-problematic adolescents that money means for them high status, success and power.

**Table 2:** *Categories of meaning of money (percentage) among students with and without emotional and behavioral problems and  $\chi^2$  values*

Categories of money	Pupils with problems	Pupils without problems	$\chi^2$ value
Function: money is a standard of payment	25.3	32.3	3.52
Function: a store of value with restriction that people cannot buy friendship, love, health, family, happiness	13.5	30.8	6.13**
Function: money is a store of value	15.7	16.2	1.52
Function: money is a unit of account	3.5	1.5	2.99
Function: money is a medium of exchange	0.7	2.0	0.01
Behavioral: earning money	14.0	8.1	14.70**
Symbol: Money means power, success, high status	21.0	4.2	23.07**
Behavioral negative: cause conflicts and inequality between people	1.4	0.8	0.03
Money means nothing to me	4.9	3.2	2.34

\*\* -  $p < 0.01$

#### 4. Discussion

In this research money was viewed as individual-difference construct reflecting a three-dimensional meaning of money (affectional, symbolic, and behavioral) among adolescents with and without emotional and behavioral problems. Results supported the hypothesis of the study - money symbolizes more frequently power, status and respect for adolescents with emotional and behavioral problems compared with those, who had no problems, confirming previous studies in the area of serious externalizing problems among adolescents (Kõiv, 2007) and adults (Blaszczynski & Nower, 2008).

Despite the dominant evaluative meaning of money as symbol of power, success and high status for adolescents with problems, money symbolized for both groups of adolescents achievement and freedom confirming previous studies that have demonstrated that young people are more optimistic about money as a sign of achievement and freedom than older people (Furnham, 1984; Lau, 1998; Tang, 1992).

The analysis of results of present study show that meaning of money was more affectively laden for adolescents with emotional and behavioral problems compared with adolescents without problems. Specifying these result - money was not a neutral object, but carries ambivalent meaning for adolescents with emotional and behavioral problems and was seen as paradoxically good and important, and alternatively, evil, shameful, useless and dishonest. It was found previously (Kõiv, 2007) that participants and non-participants of bullying behavior tended to express opposite affective attitudes toward money. We may speculate that the reason for the emotionally conflicting evaluations of money for adolescents with emotional and behavioral problems is connected with the essence of opposite problems they have: internalizing versus externalizing.

Money also acts as a motivator leading people in the quest to seek out opportunities to save and invest, and this characteristic seems to be unstable component of meaning of money for adolescents depending on the economic situations (for example, currency change or economic depression: Kõiv, 2012; Hoon, Vivian, & Lim, 2001). Also, there tended to be some behavioral components of the meaning of the money which differentiated two study groups in the present research – adolescents with problems evaluated more highly behavioral characteristics (investing, saving, owning, spending) of money compared with students without problems. At one side, the dominance of the rational-behavioral components of the money may reflect developmental changes of adolescents (Özgen & Bayolu, 2005), who are interested in money because they want to have and to do what their peer reference group has. At the other side, our findings enrich knowledge's in the area of meaning of money among deviant adolescents: Despite this emotional ambivalence toward money, money symbolizes for adolescents with emotional and behavioral problems more power, status and respect, and also tended to acts as a motivator leading young people in the quest to seek out opportunities to save, invest, own and spend money.

Additionally, analysis of results of present study showed that the meaning of money for adolescents with and without emotional problems was primarily functional in nature - a standard of payment, value, account and exchange, but tended to be not most highly valued compared with other human values associated with close relationships only for non-problematic adolescents. The findings on functional nature of meaning of money are consistent with previous studies (Lau, 1998; Stacey, 1982; Kõiv, 2012).

Summarizing results - there were some stable aspects of the construct of money - functional meaning seems to be stable over times for adolescents, but psychological meaning of money tended to reflect more unstable meaning of money among adolescents with and without emotional and behavioral problems.

Nonetheless, this line of research result leads to the suggestion that future studies on the meaning of money should explore more various deviant adolescents groups to extend these findings.

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## **IMPLICIT THEORIES OF PERFORMANCE: THE CASE OF PORTUGUESE PUBLIC SECTOR'S TOP MANAGERS**

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### **Abstract**

Performance in public sector is difficult to define (Andrews & Boyne, 2010) and the impact of public managers' behavior is poorly known (Van Wart, 2003). Considering this, we explore Portuguese public managers' critical behaviors (task and contextual performance) and their implicit theories regarding these behaviors' impact. We conducted a qualitative exploratory research that focuses Portuguese public managers' theories about performance. Using the Critical Incident Technique, we gathered critical incidents from 42 public sector's top managers and used thematic content analysis. The results support the definition of several propositions, namely that (P1) Portuguese public managers theorise about their behaviors' impact on performance in a complex way, considering the level of the organization, stakeholders (employees, clients and partners) and the manager itself; (P2) they tend to consider that their behaviors have impact at the organizational and the individual (subordinates) level; and (P3) they emphasize the partners' level only when considering interpersonal and communication behaviors. These propositions as research hypotheses should be tested in future deductive studies. The managers' implicit theories translate their cultural perspective (Sternberg, 1985) regarding their behaviors' impact and inform us about their model of performance, that seems to be centered in the economical dimension of performance (Savoie & Morin, 2001), that focuses the capacity of acquiring resources to fulfill the organization's formal objectives. Our study is, to our knowledge, the first to approach Portuguese public managers' implicit theories regarding their performance, enriching awareness about the impact these managers perceive to have on public sector organizations, where social and economic constraints are dominant.

**Keywords:** *Managers performance, Implicit theories, Public Sector.*

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### **1. Introduction**

Performance in Public Sector (PS) is complex, multidimensional (Andrews, Boyne, Moon, & Walker, 2010; Crewson, 1997) and political (Andrews et al., 2010) resulting from the fact that PS's structures possess broader missions and a more profound impact on society than private sector organizations do (Wright, 2001). Currently PS faces high pressures to be efficient and meet the needs of citizens (Muldrow, Buckley, & Schay, 2002; Schraeder, Tears, & Jordan, 2005; Wright, 2001) and the constant demand for PS accountability (Wright, 2001) refers to its various stakeholders (Andrews & Boyne, 2010; Andrews et al., 2010, Houston, 2005; Valle, 1999), which includes workers, taxpayers, citizens, unions and politicians. The involvement of these stakeholders in the definition of PS's objectives and assessing the PS's performance raises questions concerning, namely, the criteria and indicators that should be considered in this assessment and their relative weight (Andrews & Boyne, 2010), with some of the criteria being difficult to access (Crewson, 1997; Wright, 2001). Andrews and colleagues (2010) found that internal stakeholders have different perceptions of PS's performance and emphasized different criteria. There are also differences in the perceptions of internal and external stakeholders, with the former appraising organizational performance more positively than the latter. Understanding that various stakeholders assess the performance of PS «implies that no single stakeholder assessment is objectively right or wrong» (Andrews et al., 2010, p.109) and that «disagreement over the performance of public organizations is inherent to their role as part of political systems of service delivery» (ibid., p.124).

Literature focusing the reform of PS has emphasized mainly the importance of leadership in promoting organizational performance and managing changes (Van Wart, 2003),

arguing that effective leadership enhances the potential of the organization's management tools (Andrews & Boyne, 2010). Managers as supervisors impact many of the returns that members' access, they give meaning to formal and informal procedures of the system's organized activities and influence the workers' assessment of the fulfilment of the social contract established between them and the organization (Farh, Podsakoff, & Organ, 1990; Korsgaard, Brodt, & Whitener, 2002; Organ & Paine, 1999). According to Lynn (1996), the effective PS's manager assumes the role of "educator", communicating to workers their role, the nature of their work and presenting models of action and thoughts that should be shared in the system, aligning efforts across the organization. Despite recognizing the importance of these managers, the implications of their behaviours and actions are unexplored and most part of research focusing these managers remains dispersed (Van Wart, 2003). Knowing that behaviour is a consequence of the individual or subjective definition of the situation (Montgomery, 1998) reinforces the importance of studying these managers' subjective constructions, that is, their implicit theories (Sternberg, 1985), given that «Upper managers bring together and interpret information for the system as a whole» (Daft & Weich, 1984, p.285). Based on the Portuguese public managers' multidimensional model of Individual performance (Brandão, 2010), which highlights the specificity of this manager's task and contextual performance (Conway, 1999), we focus the implicit theories of these managers concerning performance, contributing to the PS's literature.

## 2. Methods

The design of this study was an exploratory qualitative approach using the Critical Incident Technique, in the context of interviews. Participants were 42 Portuguese public managers, 14 are first level managers and the remaining are second level managers. The majority are male ( $n=28$ ), between the ages of 51 and 60 ( $n=15$ ) and the majority of the female participants are between 41 and 50 years old ( $n=8$ ). The majority of participants have been in the present job for between 1 and 5 years, despite working in the public sector for over 26 years. Participants represent 14.95% of the population of Portuguese PS managers and 40 organizations, considering the entire PS<sup>1</sup>. When requesting the managers' collaboration (and during data collection), we stressed that the results of our study would be used only for research purposes in order to prevent egocentric self-reports. For this study, a critical incident (CI) was defined as a work episode in which the manager adopted a specific behaviour with a positive or negative impact on performance. In order to meet requirements for validity (Butterfield et al., 2005), the CI should (1) have occurred in the manager's present job, and it should contain a full description of (2) the type of impact the behaviour had, (3) the CI circumstances, (4) the behaviour the manager adopted, (5) the observed result in the CI and (6) what motivated the manager to adopt the behaviour. Managers were asked to describe at least 5 CI. Data was analysed using thematic content analysis (Bardin, 2009) using NVivo9<sup>2</sup>. The first author checked the transcripts against the interviews notes and audio (Rapley, 2007) to confirm there were not any mistakes and to guarantee anonymity, contributing to the work's descriptive and interpretative validity (Butterfield et al., 2005). In order to enrich the analysis, we defined the CI as the context unit and the theme in the context as the coding unit (Bardin, 2009). The credibility of the system of categories was achieved through documentation of the coding process, operationally defining the categories, and by asking two industrial and organizational psychologists to analyse the coding system. A second researcher coded 10% of the collected CI to verify the consistency of coding (Miles & Huberman, 1984), obtaining an inter-coder agreement rate of 87.3%, which reflects the number of cases in which there was an agreement on the coding by both judges, divided by the total number of coding for that material (Jones, 1996). In 1.8% of the cases, we reviewed the operational definition of categories so as to better capture the coded data.

<sup>1</sup> Local Administration structures were not considered.

<sup>2</sup> QSR NVivo version 9.0; Copyright QSR International Pty, Ltd.

### 3. Results and Discussion

We analysed 224 CI in which the manager adopted a behaviour that had impact at some level and we identified the behavioural categories of that action, which are the behaviours that promote or harm (76.34% and 12.05% of the collected CIs, respectively) both the organizational and the manager's objectives. We also noted behaviours which had a medium impact (8.48%) and behaviours that had simultaneous positive and negative impact (3.13%), according to participants, which was a result we did not expect. Participants adopted task behaviours in 76.10% of the collected CIs, while 23.90% of the CIs were related to contextual behaviours. In this paper, we only focus the managers' theories regarding the impact of the behaviours they adopted in the CIs, which inform us about their implicit theories of performance and enables the definition of several propositions, some of which will be briefly discuss.

*P1: Portuguese public managers theorize about their behaviours' impact on performance in a complex way, considering the level of the organization, stakeholders and the manager itself.* When analysing the impact managers associate to their actions in the CIs, we understand that their subjective constructions are structured in three main levels: the manager, the organization and internal (employees/subordinates) and external stakeholders (clients and partners), reflecting the managers' theories regarding how their behaviour is manifested at these levels. This translates that Portuguese public managers acknowledge that their individual performance has consequences at different levels, specifically at the individual, group and organizational level (DeNisi, 2000) and is consistent with the fact that organizational performance is multidimensional (Kreitner & Kinicki, 1998; Savoie & Morin, 2001).

*P2: Portuguese public managers tend to consider that their behaviours have impact at the organizational and the individual (subordinates) level.* Despite possessing a complex model of Individual performance, the managers' dominant model of performance appears to be focusing the organization, being centred on maintaining the organizational system, its structure, process and objectives. The organization emerges as the main criterion for evaluating performance, as the elements outside the organization and the common good (which we associate to citizens) do not stand out. One of the main conclusions of our work is, then, noting that the theories of the PS's managers in our study does not translate the importance of the diversity of the constituents of PS and that high performance is mainly associated to behaviours that have a direct impact on the organization rather than on employees (although these are emphasized to some level) and external constituents. We see this as a "closed" speech since it is centred in a "macro" dimension, revealing that the performance model of these managers favours the economic conception of performance (Savoie & Morin, 2001), which refers to the capacity to acquire resources to accomplish the organization's formal objectives. Managers' emphasis in the improvement of processes and finances meets the concern of making PS economically more efficient, present in literature (Muldrow et al., 2002) as in the political speech. Since managers are appraised based on the results achieved by the organization, it seems natural that their speech and their activity focus this macro level. Changing this would require a change in what the government and the critics emphasize as the success criteria of the PS super system, enhancing the integration of a wider range of criteria, without neglecting the importance of the organization's internal structure definition and maintenance.

*P3: Portuguese public managers emphasize the system partners' level only when considering interpersonal and communication behaviours.* The dimension of performance that receives less attention in these managers' discourse is the satisfaction of external stakeholders, particularly with regard to the interests of users (citizens) and partners (other organizations). Organizational partners are, however, focused when managers explore the adoption of interaction behaviours, which reflect the managers' action in relation to the organizational changing environment. The manager is required to collect and provide information, persuading others to accept their positions and to formally represent the organization. The reforms that have characterised the PS require this manager to adopt behaviours that enable him to fulfil his privileged position in the interpretation of the organizational phenomenon, realizing threats and opportunities within and outside the organization and acting to create the necessary energy for action, manifesting the ability to deal with continuous changes (Valle, 1999). Portuguese PS

managers seem aware of the importance of their behaviours on relation to other organizations and that organizational performance is associated with the impact these behaviours have on organizational partners.

#### 4. Conclusions

As the evaluation of the organization's performance happens within a specific time (Katz & Kahn, 1987) and is based on dynamic criteria (Cameron, 1986), the implicit theories of performance of the Portuguese PS's top managers focused in our work seems consistent with the time we live in despite colliding with fundamental philosophical principles underlying PS. Insofar as political leaders emphasize performance criteria directly relevant to their own political role (Andrews et al., 2010), and have been focusing mainly the need to reduce costs in the PS, this may suggest the need for a change to happen at the political level in order to produce a change in the speech of the Portuguese PS managers, so their theories regarding performance revalorises citizens' interests and the involvement of external partners. Faerman, Quinn e Thompson (1987) stress that the action of PS managers should incorporate flexibility, creativity and openness to the environment and acting as a mentor and facilitator, combining with an emphasis on the organizational structure, systems, processes and objectives (already dominant in the theories of the managers studied), hence enabling a more complete evaluation of performance (Kreitner & Kinicki, 1998). Although we believe that the pressures at which the PS is subject help explaining the results in our study, the absence of emphasis on the PS's values and citizens' interests is, we believe, contrary to the definition of PS as an extension of citizens and as an entity that serves the public interest by protecting the citizens' rights and interests.

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## A STRUCTURE OF PERSONAL INTEGRITY AS A PSYCHOLOGICAL CONSTRUCT

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### Abstract

This article reports on the findings of a qualitative study in which the construction of personal integrity of some public leaders was explored. Data were gathered through in-depth interviews, biography analysis, and trusted figures in the community. Two in-depth interviews with Indonesian public leaders, one is the person who was transformed from fundamentalist become nationalist, and the other is the best judge in Indonesia. A grounded-theory approach to the data analysis elicited three themes. These themes and their interaction are discussed in this article and a structure of personal integrity is proposed. Personal integrity is an ethical identity of an individual. Ethical identity is formed through a structure that conceptualized as a multifaceted and dynamic construct consisting of motivational trait or certain basic desires, functioning of personal agency, and moral courage. The limitations of this study were addressed through member checking, peer reviews and rigorous descriptions of the raw data that support the interpretations made.

**Keywords:** *Personal integrity, Basic desires, Personal agency, Moral courage.*

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### 1. Introduction

In general, integrity was understood as a specific behavior that is used to describing the integrity in individual level. So far, the level of integrity conceived with two different approaches. First is through the criteria that were used in the personality test known as a 'integrity test'. These criteria were developed based on the need for a figure that is expected, after the election was conducted personality tests in accordance with those criteria. From various sources recorded that the dimensions of 54 personality tests are being used to measure the degree of integrity consist of the following honesty (23), substance scale (22), socially desirable responding (17), overall index (17), theft (14), tenure (7), etc. Behavior that was used to describe the sense of integrity is largely an adherence to moral principles are reflected in the behavior on the workplace setting.

Several studies on the integrity concept was producing considerable variation of the concept. From the study of Zizhen, Jixia, Qianqian, and Shijuan (2009) indicating that integrity contains eight major dimensions, which is consist of positive facets (sincerity, confidence, justice and trustworthiness) and negative facets (selfishness, sophisticate, guilefulness and untruthfulness); Green (2003) was identifying the dimensions of integrity using a confirmatory and discriminant validity analysis and the dimensions are concern for others, conscientiousness, emotional control, and honesty. Meta-analysis by Wanek, Sacket, & Ones (2003) was analyzed of 798 items produced 23 themes filtered again into 4 components, namely antisocial behavior (theft admissions, association with delinquents), socialization (achievement orientation, LoC), positive outlook (viewing people basically good and the world as basically safe), and orderliness/diligence. Becker (1998), Wanek, et al. (1998); Marcus, Riediger, and Hoft (2006) was producing conscientiousness, agreeableness, and emotional stability. Ones (1993) said that conscientiousness is the best predictor for integrity.

The common of these studies is the data coming from a variety of personality tests. These tests are used to measure the same construct should have convergent validity, and it is hoped that the integrity test must have a correlation with each other (Ones, Viswesvaran, &

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Schmidt, 1993; Wanek, Sacket, & Ones, 2003). It appears that there is a difference between the notion of integrity tests available today. This would not have happened if different tests are developed based on a particular theoretical construct (Burisch, 1984). It is not based on specific criteria that differ between individual interests. Because of these conditions, this study was conducted to address issues around the concept of integrity from the point of view of psychology.

## **2. Objectives**

The objective of this research was to explore the constructions of integrity definition based on the psychological construct underlying of integrity behavior in the individual level and consequently to develop a latent construct framework of integrity as an ethical identity. The aim of this article is therefore to establish a construct framework that could serve to conceptualise integrity and its underlying constructs as a basis for the further development of theory.

## **3. Research Design**

Many human behaviors are difficult to quantify, let alone understanding of the personal experiences. A lot of psychological manifestations are impossible measured and standardized, let alone poured in numerical units. We may be talking about the scale, ratings, benchmarks, and various other measurement means, but need to remain aware that what can be captured quantitatively was not fully representative of the understanding of human exposures are qualitative in a nature. How to measure integrity, and a number of other psychiatric manifestations, except through the ability to share a sense of empathy? It is not all human incarnation it can also be the occasional appreciation of us.

A qualitative approach was therefore deemed most efficient in resolving the preceding research objective. Qualitative research provides access to and an understanding of people's subjective experiences of a psychological phenomenon (Strauss & Corbin, 1998), such as integrity. Such approach also aligns with the study's explanatory purpose, namely to develop a conceptual framework for understanding and working with integrity. According to Barnard, Schurink, and de Beer (2008), a conceptual framework provided as a systematic representation of a research phenomenon (in this case is integrity) by explicating relationships, patterns and regularities within the phenomenon. It is explanatory because it defines and explains the phenomenon being studied (Silverman, 2000).

## **4. Methods**

A qualitative approach was used to determine the things that are relevant to the issues related to integrity. Thereby was strengthening the research question because everyone else is still disputed. If there are others who are investigating a similar problem or unsolved problems, the author can determine what method is used, the result of what has been accomplished, what part of the research that has not been resolved, the factors that support and obstacles that have been taken to overcome barriers the research. The previous study was by Barnard, Schurink, and de Beer (2008) used a grounded theory approach to psychological research suggests a process of identification of individuals with certain characteristics and then examine the results for the individual to suit the purpose of research. This research was used the different method and sample.

In qualitative research, the research sites and participants are selected following a strategy called purposeful sampling. Purposeful sampling is "selecting information-rich cases for study in depth" (Patton, 1990, p. 169) when one wants to understand something about those cases without needing or desiring to generalize to all such cases.

### **4.1. Data Resources and Gathering**

The data was coming from two different resources, from articles in newspaper along 2010 related to the figure that indicates by societies what they are doing and their contribution to their environment and society. And the other data was coming from two figures that indicated

by society as a person with high integrity as their reputation. Participants are resulting in theoretical products that are based on their co-construction of meaning (Mills et al., 2006). In-depth interviewing as a type of semi structured or unstructured interviewing technique (Fontana & Frey, 1994) was utilized, as it is ideally true to the epistemological notions in interpretivist research (Kvale, 1996). Theoretical sampling both directs data collection and is directed by data collection to the point of data saturation (Strauss & Corbin, 1990) or to the point of sampling to redundancy (Durrheim, 2004).

#### **4.2. Research participants**

A profile was selected based on their significant contribution in the neighborhoods where they live, in the other name is by reputation. Sources of reference is the Kompas newspaper in 2010 on the reviews about people who have the courage to make changes in their personal lives as vocation. The data will be cross check with the result of the depth interviews with the figures.

In purposefully selecting information-rich research participants, sampling was particularly directed by selecting exemplary cases (Plummer, 2001; Yin, 2003) or reputational sampling (Miles & Huberman, 1994). The participants were thus selected on the strength of recommendations by key informants indicating the people to be information-rich and reputable with regard to the phenomenon being studied (Ostrander, 1995; Thomas, 1995). In total, two participants were selected with the following uncommon: (1) They could all be described as ethics dimension in their work or corporate elites because they all had senior and executive level positions in highly successful organization and in the high court. (2) They had all been referred to the study as a good person as a public figure and a good judge in their work relationships, business dealings and their social relationships.

#### **4.3. Data capture and storage**

The interviews were tape-recorded with a digital recorder (Strauss & Corbin, 1998). They were then transcribed by a professional transcriber and the transcriptions were reviewed by the researcher with due consideration of transcription pitfalls and conventions according to Easton, McComish and Greenberg (2000). The transcriptions were imported as primary documents into thematic analysis, which ensures secure and logically structured data storage as well as immediate search and retrieval functions. The data were substantiated by field notes compiled according to the strategies suggested by Wolfinger (2002). A reflexive journal was also kept throughout the data-gathering and data analysis process (Kelly, 2004).

#### **4.4. Data analysis**

The data were analyzed according to the original Strauss & Corbin (1998) thematic and content analysis by ascribing meaning to the data through the method of constant comparison (Locke, 2001). The analytical process evolved through four interpretative stages of working with the data: generating, integrating and delimiting categories, and writing the final theoretical framework (Glaser & Strauss, 1967). Strategies of analysis suggested by Locke (2001), such as “naming”, “comparing” and “memoing”, were used through all four stages of analysis. NVIVO is the qualitative software was being used to do data analysis.

### **5. Findings**

Using grounded theory method, Barnard, Schurink, and de Beer (2008) produced the different models with the analysis of the ‘integrity tests’. They have proposed a concept of integrity, that integrity was conceptualized as a multifaceted and dynamic built with a moral compass and inner drives which is managed by the processes of cognitive and affective in creating a variety of behaviors associated with integrity. Elaboration of the results using different sample and in the broader context, this study led to other themes in understanding the sense of integrity. In this study, the concept of integrity is related to ethical identity as a life choice. This identity is as an indicator of personality functioning properly (Cervone, 2005). This identity has to form by these aspects are marked as follows:

- *Motivational traits as basic desires of human being.*

Motivational trait, based on sensitivity theory (Reiss & Havercamp, 1997) to distinguish individuals based on basic needs. Basic needs of an individual are being a motive to behave. Individual motives can be divided into two based on the purpose, the 'between' and 'end' (Suseno, 2009; Reiss, 2008). This suggests that when people do something with the instrumental aim. Such as, one of the participants said "I always apply the discipline in my life. I think the discipline reflects the value of respect others and fairness ". Different with individuals who do things are for the sake of self-interest. Another example, individuals are taking a second job for extra income (instrumental motive), to purchase health insurance (instrumental motif), which is in the end is the desire for personal or family survival (the final destination). Analysis of the motivation of the behaviors revealed a series of instrumental behavior requiring intrinsic stimulus as reinforcement to arrive at the final destination (Reiss, 2000, 2008; Suseno, 2009).

- *The functioning of the self as an agent.*

Barnard, Schurink, and de Beer (2008) were found that integrity behavior managed by cognitive and affective processes. This is basically is the role of 'personal agency' (Bandura, 1999, Watson, 2004) which saying that the individual is self-organizing, proactive, self-regulating, and not just the 'reactive organism' shaped and guided by external events. That individual has the power to influence the actions of their own to produce something. The capacity to exercise control over the process of thinking, motivate, influence, and acts through the mechanism of 'personal agency'. Actions of individuals are as human beings, socially situated or as a product of the dynamic interaction of personal influence and situational of integrity. And will fulfill the function as a contextual and functional fact in a person (Marcus, 2007). The example is from the respondents in the conversation "how do you manage the final decision in your court room?" and he said "I take some time for myself in the night before to make some examination related to the right or wrong in the important decision". Individuals are always faced with choices and living options in the form of responsible behavior (Korsgaard, 2009; Watson, 2008). A responsibility that if done with all the capabilities, then the individual will be able to relied on. Thus, the responsibility is to describe a decision or behavior that must be done to deal with the issue of the responsibility of the object. Known in the Java community is in the process of self-examination or introspection as part of a stage of self integration, a process of self-examination from egocentrism to selfishness (Jatman, 1997) for quality of a good and responsible person.

- *Moral courage*

Courage is an individual's mental and moral strength to live a life against the difficulties and adverse circumstances (Noggle, 1996; Kidder, 2005). One of the dominant perspectives on integrity held by the first participants is to a life based on values and then acting based on the values. Integrity was defined as "are you going to stay in your values whatever those are going not right?" as "to do things in a particular way, according to certain values" and as "values that I had have form the childhood and acting on the right and correct decision in the transformation from fundamentalist to nationalist". The other one research participant's account in particular summaries the view that integrity is based on living a principled life: "For me integrity it's all about principles and how to live it. Values it's a whole set of things that govern how you do things and do them within whether it's morally legally or otherwise correct and that's how I would in a nutshell look at integrity."

## 6. Conclusions

From the data, it was clear that integrity entails an internalized set of values as a basic foundation. They conceptualize every person's set of personal and internalized values as constituting their moral courage. The notion that integrity is based on a core set of values or borrows to the concept from Barnard, Schurink, and de Beer (2008) on an internalized moral compass is echoed. According to Kasulis (2005) and Lickona (1996), the self-awareness of personal needs and expectations is crucial to the balancing of personal needs with external normative responsibility towards others. The development of this ability leads to integrity.

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## THE ISSUE OF MIGRATION ACCORDING TO ADOLESCENTS AND THEIR PARENTS' PERCEPTIONS OF THEIR FUTURE

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### Abstract

A migration in general, but particularly involving young, highly educated people intensified in the 1990s in Serbia and continues to do so. One of the important consequences of this trend is the creation of an atmosphere which encourages young people to consider/plan to leave their homeland. The work is based on a study which included 205 parents and 204 of their children –adolescents (16-17 years of age). The aim of the study was to analyse the orientation towards emigration envisioned in the perceptions of adolescent's possible future according to the predictions made by adolescents and their parents. To obtain the data a questionnaire was created (applied as adolescents form and parents form) which contained general information about the candidates and on open-type question: "What kind of life will you/your child have in ten years' time?". The results of the first part of the analysis show that the topic of migration according to adolescents and parents is elaborated in three ways: (1) will live abroad in the future (26% adolescents and 11.22% parents); (2) will live in their homeland (14.70% adolescents and 29.27% parents); (3) without declaration about the question of migration (59.32% adolescents and 59.51% parents). The second part of the analysis includes the narratives of adolescents and parents who considered emigration. Through inductive analysis of the contents five thematic patterns were extracted: (a) departure abroad without any particular aim (30.19% adolescents and 26.09% parents); (b) departure abroad as an opportunity to have a normal and quality life (26.40% adolescents and 30.43% parents) (c) departure abroad as an alternative if things do not improve (16.97% adolescents); (d) departure abroad as an opportunity to progress professionally (7.57% adolescents and 39.13% parents); (e) departure abroad to realise their dreams (18.87% adolescents and 4.35% parents). At the end the results are discussed in the context of the support and advancement of youth and education policies, as well as the development of a preventative programmes.

**Keywords:** *Possible future, Migration orientation, Adolescents, Parents.*

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Migration in general, but in particular the migration of highly educated individuals from Serbia, intensified during the sociohistorical crisis during the 1990s, and continued to do so after the change of the regime in 2000. Even though the Western Balkan countries have a long tradition of emigration, when it comes to Serbia a disturbing aspect of emigration since the 1990s is the departure of a large number of young, highly educated people. It has been estimated that in the period between 1990 and 1994, 220 000 highly educated people aged from 15 to 34 left their homeland (Bolčić, 2002). During this difficult sociohistorical crisis, a constellation of "push-pull" factors favoured this migration trend – on the one hand, a war in the surrounding countries and in the country itself, together with adverse daily living conditions, and on the other, the uplift of globalization processes and the labour demands of developed countries. Following the change of government in 2000, the new constellation of "push-pull" factors continued to favour the departure of young people from the country – high unemployment in a devastated society, along with a deeply-disturbed subsystem of cultural values.

The persistence of migration flows is also visible in the figures of the World Bank publication *Migration and Remittances Fact book 2008*, according to which 17.4% of tertiary educated people left Serbia in 2000. One of the important consequences of this trend is the creation of an atmosphere which encourages young people who are still in the process of being educated to consider/plan leaving their homeland. In this respect, the research figures of 2011

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regarding the mobility of young people in Serbia (research report, 2011), realized in the representative sample of 1,530 participants from the age of 15 to 29, are important. In this research, 76% of young people stated that they had never changed their place of residence (in the subgroup of 15 to 19 year olds the figure is 86.9%), however, 60.2% expressed their readiness to move to another European country for a longer period provided they were offered a better standard of living. Furthermore, 23.3% stated that they saw their future abroad (in the subgroup of 15 to 19 year olds it was 27.2%). The reasons which they gave for leaving Serbia were, above all, economic factors – a better standard of living and easier prospects of finding work (81%), and only 12% stated education and self-improvement. The results showed that on the level of aspiration/intention, young people in Serbia express high migration potential.

In the relevant literature, the role of the family in etiology, composition, direction and persistence of migration flows is recognized (Boyed, 1989; Pallone *et al.* 2001; Polovina, 2011). The contribution of family factors is most often conceptualized by dependence on the constructs of “social capital” and “social networks”, as well as on the value expectancy model which stresses the processes through which macro stimuli convert into individual decision making processes (De Jong & Fawcett, 1981, according to Boyed, 1989, p.644). An active dynamic of the interweaving of the macro, mezzo and micro systematic influences is a characteristic of how a family with an adolescent functions. Particular emphasis is on how the parents function in their socialization role and as mediators between the larger system structural setting and the process of development of their children - family/parents “transmit cultural values and norms which influence who migrates and why... they transmit norms about the meaning of migration” (Boyed, 1989, p.643). When it comes to parents, the wider aspect of the socialization framework through which the transferred norms and meanings of (e)migration can develop into migration intentions, plans, and decisions, is the enactment of the universal and main task of parenthood, which is to prepare their children for life in the world which they will encounter when they grow up. The full significance of this preparation is seen in the critical stadium of the development of young people, and that is the transition to adulthood and acceptance of the key roles of adulthood – professional-work role, role of citizen, spouse/partner, parent and “manager” of their own household (Llloyd, 2005). In order to complete the task of preparing adolescents for adulthood, parents must anticipate and construct a picture of the future world/future reality, relying both on their knowledge, as well as to their feelings in this process.

The basic conceptual framework of our consideration of the (e)migration orientation of adolescents is the indicated preparation for the transition to adulthood and acceptance of the key roles of adulthood. We are dealing with the segment of belief and the perceptions of adolescents and their parents. Our aim is to analyze the emigration wishes and intentions envisioned in the perceptions of an adolescent’s possible future according to the anticipations/predictions made by adolescents and their parents. The questions we asked dealt with: (1) how much and in what way is the theme of emigration present in the narratives concerning the anticipated future of adolescents (2) in what ways is the orientations towards emigration reasoned (the motivational aspects in the narrative).

## 1. Method

### 1.1. Sample and research procedure

A total of 205 parents and 204 of their children/adolescents participated in the research. The average age of the parents was 45, and mothers were more represented than fathers (71%: 29%). Most of the parents (50.5%) have a high school education, then a university education (23.7%), a higher education (19.5%), and an elementary school education (6.3%). Among the parents, 62.6% were employed, 24.6% unemployed, 9.2% occasionally worked, and 3.6% were retired. Among the adolescents, the average age was 16.67. There were more girls than boys (58% : 42%), 52.2% of them were students of a general high school, while 47.8% were students of vocation high schools, and their average grade at the end of the previous school year was 4.25 ( $SD=0.729$ ).

The research was conducted in seven schools in four cities in Serbia. The research coordinator in each school gave the parents an envelope containing a document with



information about the research, a consent form regarding their children's participation in the research, and a research questionnaire. Only those adolescents whose parents gave their consent were included in the research, and they completed questionnaires in school under their teachers' supervision.

### 1.2. Measurement tool and data analysis

To obtain the data, a questionnaire was created and given to the parents and adolescents. Besides the general information about the candidates, the questionnaire also contained nine questions, one of which is the subject of our analysis in this paper - the open-type question "What kind of life will you /your child/ have in ten years' time (where will you/they live, what will you/they be doing, who will be important figures in your/their life, what significant events do you expect to happen)?" The subjects answered this question in a narrative form – the average length of the parents' narratives was 30.46 words, while the average length of the adolescents' narratives was 31.35 words.

The data analysis unfolded in two steps in which descriptive statistics (the prevalence of the theme of emigration in the narratives) and semantic content analysis (inductive thematic analysis of the narratives of adolescents and parents who considered emigration) were used.

## 2. Results

The results of the first step of the analysis show that the topic of migration according to adolescents and parents is elaborated in three ways: (1) will live abroad in the future (26% of adolescents and 11.22% of parents); (2) will live in their homeland (14.70% of adolescents and 29.27% of parents); (3) without declaration about the question of migration (59.32% of adolescents and 59.51% of parents). There is a significant correlation between the orientation toward emigration and the group of parents and the group of adolescents ( $\chi^2 = 21.844$ ,  $p=.000$ ), in other words adolescents are more oriented toward emigration. There is no statistically significant correlation between the parents' attitude towards emigration and their gender, employment status or level of education. No statistically significant correlation was discovered between the students' attitude towards emigration and their gender, the type of school they attend or their grades in school.

The second step of the analysis includes the narratives of adolescents ( $N=53$ ) and parents ( $N=23$ ) who considered emigration. This subgroup of respondents came from 59 different families, which represented 29% of the whole sample. In 18 cases (12.84% of the whole test sample) both the adolescent and their parents provided this kind of narrative. Through an inductive analysis of the contents of the narratives in which emigration was considered, five thematic patterns were extracted, four of which were present both in the narratives of the parents, and in the narratives of the adolescents, and one was only characteristic of the adolescents (Table 1). In the narratives of the parents, seeing their children living abroad was, in most cases, explained as an opportunity to progress professionally and a wish for their children to have a quality life. However, it seems that for one group of parents the very act of leaving the country was the goal. In the narratives of the adolescents, the most common thematic patterns are those implying vague goals and wishes (leaving the country, achieving their dreams), as well as the need for a quality life.

**Table 1:** *Reasons for leaving the country, as described in the narratives of adolescents and their parents*

Reasons for leaving	Adolescents (%)	Parents (%)
Departure abroad without any particular aim	30.19	26.09
Departure abroad as an opportunity to have a normal and quality life	26.40	30.43
Departure abroad as an alternative if things do not improve	16.97	
Departure abroad as an opportunity to progress professionally	7.57	39.13
Departure abroad to realize their dreams	18.87	4.35
Total	100.00	100.00

The presented results reflect authentic visions of the future of adolescents as seen by the adolescents themselves, as well as their parents. However, it is an open question whether this are realistic expectations which will be realized in the future?

### 3. Conclusions

The results of this research expose the personal perspectives of adolescents and their parents, in whose narratives departure abroad is seen as an opportunity to fulfil some of the important needs of young people more easily and better in terms of quality. From both an individual point of view and from the point of view of the family, these kinds of expectations can result in beneficial, as well as adverse, outcomes regarding the adolescent's path to adulthood. Due to long lasting socio-historical crisis, difficult economic situation, and restrictive visa regime (for the citizens of Serbia visa-free regime with EU entered into force at the end of 2009) both adolescents and their parents, have had few opportunities to travel abroad (other than short tourists visits) and create a realistic image of everyday life outside of Serbia. For the development of more realistic emigrational orientations, the existing practice of organizing school excursions could be modified so as to ensure higher level of participation of adolescents in the collection of information, the choice of country, and the everyday life activities in the countries visited. Also, modern technology allows for the exploration of different aspects of the emigrational experience in both a fun and educational way. Thematically formed youth work visits and exchange programmes also have the potential to contribute to the creation of reliable information on which their planning of future life can be founded.

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## RECOGNIZING THE WARNING SIGNS OF VIOLENCE ACROSS THE LIFESPAN: SAMPLES FROM KUWAIT AND THE USA

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### Abstract

The World Health Organization (WHO) labeled interpersonal violence a world-wide public health crisis. In the United States alone, 1.5 million women, and 800,000 men reported being abused by a partner while an estimated three million children witnessed it; these acts might involve physical as well as sexual assaults. An assaultive parent might force a child to participate in the assaults and there was a 30%-60% co-occurrence with child abuse. In 2006, 3.3 million reports of child maltreatment were investigated and as elder abuse hotlines expanded, so did statistics on elder abuse and neglect. Comprehensive violence education could serve as a valuable form of primary prevention but its empirical validity would need to be established. The Warning Signs Survey was developed as an outcome instrument and measured the effectiveness of violence education efforts at two universities. Its three major sections contained phrases indicating distractor items as well as warning signs of: violence, suicide, a maltreated child, an abusive parent, and a neglectful parent. *Objectives:* Assessed the internal consistency of the Warning Signs Survey scales. Assessed the perceptions students had about warning signs of destructive behavior. Assessed the utility of the survey for informing instructors about the strengths and weaknesses of their violence education efforts. *Design:* Students completed the survey at the beginning and end of their academic terms. *Methods:* Subjects included 156 students from Indiana University of Pennsylvania (IUP) and 136 students at the American University of Kuwait (AUK) who were taking psychology courses. *Findings:* Internal consistency varied by scale and country with Cronbach's alpha ranging from .5-1.0. Item analysis indicated that AUK and IUP students showed some divergent perceptions of the warning signs of destructive behavior. MANOVA indicated that students learned more about violence, suicide, and acceptable parenting strategies over the course of the term. However, IUP students knew more about most warning signs than AUK students; however, this may have been a result of taking a survey in their non-native language. *Conclusions:* Survey showed some potential as an effective outcome instrument but was in need of revision to reduce ceiling effects, and increase clarity, of some scales. The second version of the survey has currently been evaluated on approximately 700 IUP students. Ceiling effects have been significantly reduced and Cronbach's alphas now range from .7-1.0 on all its scales; which have been expanded to include intimate partner violence and elder abuse and neglect. It is currently being translated into Arabic for use at AUK.

**Keywords:** *Violence prevention, Outcome assessment, Teaching effectiveness.*

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### 1. Introduction

The World Health Organization (WHO, 2002) labeled interpersonal violence a world-wide public health crisis. In the United States alone, 1.5 million women, and 800,000 men report being abused by a partner while an estimated three million children witness it; these acts may involve physical as well as sexual assaults (Center for Disease Control, 1998). An assaultive parent may force a child to participate in the assaults and there is a 30%-60% co-occurrence with child abuse (Fantuzzo & Mohr, 1999). The Administration for Children and Families (2006) indicated that 3.3 million reports of child maltreatment were investigated and as elder abuse hotlines expand, so do statistics on elder abuse and neglect (Acierno et. al, 2010). Veith (2007), the director of the National Child Protection Training Center (NCPTC), developed a plan to eradicate interpersonal violence through integrating comprehensive violence education into undergraduate curriculums. With

effective educational efforts, future mandated reporters would know how to make accurate reports of interpersonal violence, future investigators of violent incidents would know how to effectively interview potential victims and perpetrators, future prosecutors would know how to gain convictions in violent cases where adjudication was needed, future psychologists and social workers would understand the dynamics of violence and provide better treatment; future parents would understand child development and use nonviolent, child rearing strategies; and, enough community members would understand the dynamics of abuse to provide a political tipping point in favor of legislation that would support nonviolence. Veith's plan has been endorsed by the National Partnership to End Interpersonal Violence (NPEIV) and the Institute on Violence, Abuse, and Trauma (IVAT) and many universities across the United States are developing interdisciplinary, violence education curriculums that are affiliated with these organizations. While violence education could serve as a valuable form of primary prevention, empirical validation of its effectiveness would be needed.

The Warning Signs Survey is an outcome instrument, under development for use in validating violence education at the university level. It contains ten scales including the: warning signs of violence, warning signs of suicide, items not reflecting violence or suicide, the warning signs of a maltreated child, signs of typical childhood, the warning signs of a sexually or physically abusive parent, the warning signs of a neglectful parent, and signs of acceptable parenting. Students at AUK and IUP completed the English version of the survey at the beginning and end of their academic terms. The Warning Signs Survey was available on the internet. Each student was sent a link to the survey. The project assessed the internal consistency of the Warning Signs Survey scales, assessed the perceptions of students about the warning signs of destructive behavior, and the utility of the survey for informing instructors about the strengths and weaknesses of their violence education efforts.

## **2. Method**

### **2.1. Subjects**

A total of 292 psychology students participated in the study; 156 were from IUP and 136 were from the AUK. Seventy percent of the sample was between the ages of 18-20 and 31% were 21-23. The gender split was 26% male and 73.5% female. Thirty one percent were freshman, 30.9% were sophomores, 18.9% were juniors, and 18.2% were seniors. Comparing demographics by country, there were no gender differences however, the Kuwaiti sample was significantly older, contained more upperclassmen, and came from less rural areas.

The majority of participants were taking introductory psychology classes but some came from more advanced psychology courses. Subjects represented a convenience sample of students from courses taught by the study authors.

### **2.2. Measures**

The Warning Signs Internet Survey had 143 items. The main sections contain sentences or phrases describing behavior. Subjects were asked to identify whether each represented acceptable behavior /neutral behavior or was a sign of destructive behavior towards self or others. For example, one item intended as a warning sign of a physically abusive parent was, "the parent has very strict rules and punishes any sign of disobedience." Other sections of the survey collected demographic information about the students, asked students to identify the environments in which they had already been exposed to information about destructive behavior and asked students for their perceptions of the accuracy of information they received from these environments. Distracter items reflecting neutral or positive behavior were created for each section of the survey with item order determined by random assignment. Pretesting of items was carried out using a variety of samples including: students from IUP; students in Kuwait and: the Staff of Indiana County Children & Youth services (CYS). It had originally been intended to use a similar agency of professionals in

Kuwait; unfortunately, no parallel agency existed. Dr. Dinkha and her graduate assistant translated the survey into Arabic.

AUK students came from a variety of countries in addition to Kuwait. Some were native Arabic speakers and some were not. In addition, all instruction in AUK was in English and thus English proficiency was a requirement for attendance. In addition, AUK students were native to more than one dialect of Arabic, and many of the psychological concepts in the survey had no direct Arabic equivalents. This led to significant translation difficulties. After many efforts at revision, and technical difficulties with entering it on the internet, the Arabic version of the survey was dropped.

Pretesting with AUK and IUP students was used to determine the version of the English survey used in this study. Some items on the English version were reworded to be clearer and some items were adapted due to concerns vis-à-vis their cultural acceptability. It was challenging trying to find wording that was acceptable in both cultures but that transmitted the concepts clearly. The instructions, indicating to students that they could skip items if they found them too offensive, were repeated at the beginning of each section of the survey.

### **3. Results**

#### **3.1. Internal Consistency of scales**

The internal consistency of the warning scales was examined using pre-test data separately the survey for the AUK and IUP samples. For a scale to be considered internally consistent its Cronbach's alpha had to be at least .7 and each item on the scale had to have a correlation with the total scale of at least .2. Data from AUK students indicated that only six of the ten scales met these criteria. Data from IUP students indicated that ten of ten scales met both criteria.

#### **3.2. Perceptions of the Warning Signs of Destructive Behavior**

An item analysis was conducted to determine student perceptions of the warning signs of destructive behavior in their country using frequencies and other descriptive statistics. For each item, if 50% or more of the students endorsed it as a warning sign of a destructive behavior, then the item was defined as being perceived as a warning sign of that behavior. AUK and IUP students were found to have categorized 22 items to not being perceived as belonging on an expected scale. For example, the item "threats to harm oneself" was perceived by 47.4% of IUP students to be a warning sign of suicide, and by 46.1% as a warning sign of suicide and violence. AUK students considered this item to be more reflective of violence with 28.4% endorsing it as a sign of violence and 45.5 % endorsing it as a sign of suicide or violence. There were six items that were correctly endorsed by 80% or more of both AUK and IUP students as warning signs of destructive behavior.

IUP and AUK students perceived some items on the Violence Scale, Suicide Scale, Not Violence or Suicide Scale, and Emotionally Abusive Parenting Scale differently from each other. At IUP, 7 of 9 of the intended warning signs of suicide were perceived by students to be "warning signs". In contrast, only 2 of 9 of these items were perceived by students in Kuwait to be "Warning signs". The sole items endorsed by both AUK and IUP students included saying they had no future and making statements indicating the intent to harm self. There were many other items that U.S. students felt were warning signs of suicide that were not perceived as such by the Kuwaiti students. This included items indicating ending long standing friendships, expressing hopelessness, and giving away important possessions. Two items that students from both countries misperceived as not relevant to suicide, was showing an increase in impulsiveness and a significant change in sleeping patterns. In Kuwait, these symptoms might be associated with depression, which is more visible and prevalent in the Kuwaiti society, rather than suicide. Reports on suicide in Kuwait are reported as accidents rather than suicide, as this is a highly stigmatized behavior in society. Students in both countries showed highly congruent opinions about what might constitute warning signs of violence. Within the U.S., 8 of 9 items intended to indicate violence were endorsed. Similarly, 7 of

9 were endorsed by Kuwaiti students. One item, not endorsed by students from both countries, was being rejected by peers despite research noting it as a warning sign.

Significant ceiling effects on many of the remaining scales. There were sixteen intended warning signs of a maltreated child. However, warning signs and distractor items were all endorsed as warning signs. There had been nine intended signs of a physically abusive parent. AUK and IUP students endorsed the same eight of these. The only item both countries did not consider a warning sign included the behavior of having a ten year old stand in the corner for four hours. There had been eight intended warning signs of a sexually abusive parent. Both countries endorsed all eight at pre-test. There had been eight items intended to be warning signs of an emotionally abusive parent. AUK students endorsed seven of these. IUP students endorsed six of them. One item that students from both countries did not endorse involved one parent drinking heavily and then asking the youth to lie to the other parent about it. There had been ten items intended to reflect a neglectful parent. IUP students selected nine of these ten. AUK students selected seven of them. Students from both countries did not see it as neglectful for a ten year old to always remain inside and never interact with other youth. Students in Kuwait did not see it as neglectful when a parent never showed physical affection or if the parent made illegal drugs while the youth was in the room and exposed the youth to danger due to parental drug use. There were eleven items intended to reflect acceptable parenting, IUP endorsed them all as acceptable. AUK students did not endorse the following: Parent makes all the rules in the family and expects the youth to obey without arguing; parent searches youth's room for drugs and alcohol after youth has been behaving strangely all weekend; and, parent expects youth to work for the family business after school and on weekends.

### **3.3. Utility of Survey for Instructors**

Accuracy scores were developed at the beginning and end of the term to determine how well students had identified the warning signs. A comparison was made using MANOVA. Students from AUK showed no increases in accuracy; their recognition of the warning signs of violence and neglectful parenting decreased. Item analysis indicated these decreases reflected re-categorization of an item from one destructive category to another. IUP students increased their knowledge of the warning signs of suicide, violence, and behaviors that were not signs of violence or suicide; knowledge of the warning signs of neglectful parenting decreased. Ceiling effects on many of the remaining scales prevented these scales from being able to indicate whether any knowledge was gained from the course curriculum concerning these destructive behaviors.

The survey asked students to indicate where they were learning information about destructive behavior and parenting and made a judgment about how accurate they felt the information was. IUP students indicated receiving the most accurate information from their academic courses and AUK students indicated receiving the most accurate information from their families. AUK students were almost twice as likely to have indicated that they learned about destructive behavior from personal exposure as IUP students (14% compared to 8.6%). AUK students indicated being twice as likely to be exposed to a dangerous neighborhood or country as IUP students (21.8% compared to 13%).

## **4. Discussion**

Violence prevention in the United States faces the barrier of counter-acting pervasive messages from violent media and from cultural messages that violence is a problem of individuals not of cultural attitudes. Violence prevention in Kuwait faces the barrier that educational materials on the issues are considered irrelevant and the topics relevant to violence prevention are considered taboo in the media. This taboo is the result of many factors including the false belief that domestic violence does not occur in Kuwait, that religious teachings forbid such violence, that all Kuwaiti family systems are warm and cohesive, and that it is more important to protect the image of Kuwaiti society than educate the population about the reality of domestic violence. This study investigated

the effectiveness of the Warning Signs Survey as an outcome instrument for assessing violence prevention efforts at two universities, one in the United States and one in Kuwait. The results of the study indicated that the survey did provide some valuable information to instructors that they could use in revising their courses to be more effective. For example, students at IUP were learning accurate information about violence and suicide and both AUK and IUP students did not understand the warning signs of neglectful parenting. Results also indicated that the survey had scales that were in need of significant revision due to ceiling effects. Cultural differences were found between the perception of AUK and IUP about warning signs of some destructive behavior. For example, only IUP students considered spending time with an aggressive gang of peers to be a warning sign of violence. These findings must be viewed with caution as they might have been due to other factors such as simple misunderstandings of the meanings of the items, a lack of knowledge of these topics, or the conservative attitude Kuwaiti society has towards domestic violence and other forms of interpersonal violence that might lead AUK students to discount some warning signs.

Future projects using the Warning Signs Survey have been ongoing and a second version of the survey has been used with approximately 700 IUP students. This version has significantly reduced ceiling effects however there are significant revisions that need to be made on the neglect and emotional abuse scales. An Arabic translation of the second version of the survey has been completed. However, there remain technical problems in making this survey accessible over the internet. Software that had been used in putting the English version on the internet, FrontPage and then Qualtrics did not accurately follow the right to left visual representation needed for Arabic.

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## **A CULTURE OF VIOLENCE AGAINST WOMEN IN SOUTH AFRICA: A CASE STUDY ANALYSIS**

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### **Abstract**

Violence against women is extremely prevalent in South Africa. South Africa has one of world's highest levels of reported rapes and has been labeled the rape capital of the world. Domestic abuse is also rife in South Africa, with alarming levels of partner violence. Nearly two decades since the end of Apartheid and South Africa is still grappling with the relentless issue of violence. However this is not surprising as South Africa's past is embedded in political violence and oppression, creating a culture of violence which is both normalized and tolerated. This study focuses on how women's lives and identities are transformed by living in this culture of violence, more specifically the psychological impact this has on them. The theory of the psychosocial subject was used to frame the study and a biographical-interpretive methodological approach was utilized. A case study approach was adopted and a series of free-association, narrative interviews were conducted with 27 female, University of Cape Town (UCT) students, between the ages of 18-32 years. Interpretive analysis, drawing on social discourses, biographical/narrative accounts and unconscious motivations and forces, was used to analyze the data. Findings have revealed the complex interaction between identity and trauma, more specifically the prevailing discourse of silencing women's stories. South Africa has one of the most progressive constitutions in the world and some of the highest number of women in Parliament in the world. However despite extensive legislation which readdresses the subordination of women in South Africa, the staggering levels of violence against women remain. This paper explores how women and the violence perpetrated against them are silenced in South Africa. It examines the paradox between the high levels of violence against women and the extensive legal discourse set in place to protect women. It explores the subtle fear and trauma entrenched in the stories of these women as they are exposed to continuous trauma. This research goes beyond previous literature as it highlights how all women are affected by the presence of violence in their community, emphasizing the bondage that violence against women has over the lives of all women.

**Keywords:** *Violence against women, South Africa, Trauma, Identity, Gender.*

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### **1. Introduction**

Violence against women is extremely prevalent in South Africa, which has created a context in which violence against women is both normalized and tolerated. The Human rights Watch (2010), reported that South Africa has the highest rate of reported rapes in the world, labeling it as the rape capital of the world. In 2012, 55201 rapes were reported to the police however this figure needs to be viewed within the trend of underreporting in South Africa (ISS Factsheet, 2012). The National Institute for Crime Prevention and Rehabilitation (NICRO) estimates that only one in twenty rapes are reported whilst the South African Police Service (SAPS) estimate that only one in thirty six rapes are reported (Vetten, 2000). Intimate partner violence is also rife in South Africa and it is estimated that one in four women are believed to be involved in an abusive relationship (Abrahams, Jewkes, Laubscher & Hoffman, 2006; Van Rensburg, 2007). Furthermore, more women are killed by their intimate partners in South Africa than anywhere else in the world (Abrahams et al., 2009; Palmary, 2006). Approximately half of all South African women murdered in 1999 were murdered by their intimate partner and as a result it is estimated that a woman is killed by her intimate partner every 6 hours (Mathews et al., 2004). Abrahams et al., (2009) reported that the overall rate of female homicide (24.7 for 100,000) in South Africa is six times higher than the global rate. Our constitutional right to feel safe in our own homes and communities is being violated daily, creating a culture of violence



which is both normalized and tolerated (Lamb & Price, 2013). This intensifying fear and culture of violence has severe implications for the identity construction of women in South Africa.

There is currently extensive legislation which readdresses the subordination of women in South Africa since 1994 (Walker, 2005). This includes the Domestic Violence Act in 1998, which broadened the definition of domestic abuse, to include emotional, economic, verbal, physical and sexual abuse and widened the definition of what constitutes 'domestic' (Domestic Violence Act, 1998, Act 116 of 1998). The New Sexual Offences Act of 2007 broadened the definition of rape to include forced anal, oral and vaginal sex, irrespective of the gender of either the victim or perpetrator and the method of penetration [Criminal Law (Sexual Offences and related Matters) Amendment Act No. 32 of 2007]. The South African Constitution of 1996, which advocates for the rights of freedom and security of any individual, irrespective of their gender or sexuality or race, is one of the most progressive constitutions in the world (Human Rights Watch, 2010). Furthermore, South Africa has some of the highest number women in Parliament in the world (Graybill, 2001). However despite extensive legal discourse, violence against women in South Africa and the fear associated with such violence are still prevalent.

Vetten (2000, p.49) argues that the "militarization and conflict of the Apartheid era" are embedded in the country's psyche and set the context for how men relate to women in this country. Despite extensive legislation aimed at readdressing this problem, the country's history of racial violence and gross human rights violations creates the context for a culture of violence and fear, where crime is rife and human life is expendable. Wardrop (2009) argues that living within a context of violent crime and fear, such as South Africa, transforms an individual and changes the topography of their identity. In South Africa, preparing for the dangers of violence has become interwoven into our daily activities and social practices, as women are expected to employ precautionary strategies to avoid violence. As a result women, living in communities where violence against women is rife, are exposed to 'insidious trauma', as the continuous fear and anticipation of violence, is emotionally jarring and serves to shape the modern consciousness of women (Brown, 1995).

## **2. Design**

This study focuses on how women's lives and identities are transformed by living in this culture of violence, more specifically the psychological impact this has on them. The theory of the psychosocial subject was used to frame the study and a biographical-interpretive methodological approach was utilized. A case study approach was adopted and a series of free-association, narrative interviews were conducted with 27 female, University of Cape Town (UCT) students, between the ages of 18-32 years. Interpretive analysis, drawing on social discourses, biographical/narrative accounts and unconscious motivations and forces, was used to analyze the data.

### **2.1. Participants**

The racial composition of these young women were a mixture of African, white, Indian and mixed-race. Young women were targeted because this is the time period in which women typically become concerned about their safety, their identity and realize that their body is a site of conflict and struggle. Women did not necessarily need to have direct experiences of gender-based violence to participate in this study; however most women did discuss personal experiences of violence. Focusing on women who do not necessarily have direct experiences of violence offers an additional view that is often not seen in literature, highlighting the impact that the presence of violence against women in their communities, has on them. Participants were accessed through the Student Research Participant Programme (SRPP) in the psychology department. This form of snowball sampling will help identify participants, whilst keeping the sample random and unbiased.

## **2.2. Free Association, Narrative Interviews**

Two interviews were conducted with each participant. The interview consisted of an opening statement, discussing the prevalence of violence against women and the researcher's interest in the participant's life story. The second interview consisted of a series of follow-up questions. Informed consent was obtained before the interviews were conducted and each participant was debriefed at the close of the interviews.

## **2.3. Interpretive Analysis: Discourses, Narrative accounts and Unconscious Motivations**

Interpretive data analysis, derived from the biographical-interpretive approach, designed by Hollway and Jefferson (2000), was used to analyze the interview transcripts. The researcher explores the discourses participants position themselves in and the unconscious attractions and investments of these discourses in relation to their biographical narrative accounts. The way participants unconsciously position themselves in particular discourses to defend against anxiety and retain power is also explored.

## **3. Findings and Discussion**

Findings have revealed the complex interaction between identity and trauma, more specifically the prevailing discourse of silencing women's stories. Despite extensive legislation which readdresses the subordination of women in South Africa, the staggering levels of violence against women remain. The paradox between the high levels of violence against women and the extensive legal discourse set in place to protect women highlights the normalization of the culture of violence in South Africa. Themes emerging from the case study analysis have highlighted the following discourses: the discourse of fearing all men; discourse of women's responsibility (constructing precautionary strategies against violence); discourse of stranger danger and the narrative of transgenerational trauma (the telling and retelling of stories of violence against women within the family unit). However these discourses all serve to support the silencing of women's stories and the creation of a culture which constructs violence against women as trivial and a 'normal' part of life.

The women in the study positioned their fear of violence against women as 'natural' because women are socialized from a young age to fear men. This fear of male perpetrators becomes assimilated into the identity of women and their life stories. This is illustrated in one of the case studies, Monica, an African woman previously from an urban township in Johannesburg, now residing and studying at the University of Cape Town. She (aged 19) tells the story of her first conscious memory of fear at seven years old. She speaks about seeing a neighbor raped.

"This lady she was one of the house helpers on my street and she was running and there was this guy chasing her. He grabbed her on the lawn in front of my street and basically he wanted to rape her. He was taking off his pants and stuff. That was like...looking back on it I didn't really understand what was happening at the time." (Interview 1, p. 14).

"(...) that was the first time that I think I was scared of a man because I just didn't understand why you would do that to somebody (...)" (Interview 1, p. 15).

"(...) but I always heard my granny saying that you need to be careful you'll get yourself raped and stuff like that." (Interview 1, p. 15).

Monica speaks about how she never understood why her mother tried to make her scared of men, until she was seven years old and witnessed her neighbor's rape. This poignant story highlights how the fear of rape has become a taken-for-granted aspect of womanhood, an unconscious force that motivates how we live our lives, that we often forget that there was once a time that we didn't know what the 'fear of rape' was or why we had to be scared of men.

Monica also speaks about how her grandmother told her that she needs to be careful or “you’ll get *yourself* raped”. The use of the word, ‘yourself’ emphasizes how women are seen as responsible for the violence perpetrated against them and are expected to construct precautionary strategies to avoid such violence. This shifts responsibility away from perpetrators towards women, which reinforces victim blaming, contributing to the silence surrounding violence against women in South Africa.

In Monica’s case study, she tells a story of how she witnessed her neighbor’s rape. However throughout the interviews, participants spoke about how their mothers, grandmothers, aunts and sisters told them stories about the violence perpetrated against themselves and other female members in their family. This oral tradition in which women speak about how their mothers, grandmothers and they themselves have been abused by men serves to construct cautionary tales for other women. Camilla (aged 26), a white women who currently resides in a middle class area in Cape Town and studies at the University of Cape Town, speaks about how she found out that her mother was physically abused.

“I mean I heard the stories from my aunt about what my grandfather did to her and I can understand her not wanting to tell us. It was quite horrific hearing someone bashed your mother’s head against the wall because they were angry at her.” (Interview 1, p. 12).

These stories were considered ‘private family issues’ and were not consciously labeled as violence against women. This telling and retelling of transgenerational trauma serves to construct the identity of the women in that family and demonstrates the continuous trauma that women living within a culture of violence experience.

#### 4. Conclusion

This study explores the subtle fear entrenched in the stories of these women as they are exposed to continuous and insidious trauma, indicative of a culture of violence against women, which is present in South Africa. This research goes beyond previous literature as it highlights how all women are affected by the presence of violence in their community, emphasizing the bondage that violence against women has over the lives of all women. This study is highly significant for the South African context as there is sparse literature in South Africa which has explored the psychological impact of a culture of violence against women. The paradox between the prevalence of violence against women and the extensive legislation aimed to protect women in South Africa exists because our culture of violence is trivialized, normalized and tolerated. Women’s stories are silenced and seen as unimportant in the public arena. This case study analysis sheds light on how women try to construct their identity in the midst of violence and fear in South Africa.

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## IMPACT OF VICARIOUS TRAUMA ON BARRISTERS PRACTISING CRIMINAL LAW: A GROUNDED THEORY STUDY

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### Abstract

This qualitative grounded theory study explored the impact of vicarious trauma on Irish barristers practicing criminal law. Respondents described conditions arising out of their work that are implicated in the experience of vicarious trauma (hyper-vigilance, intrusive memories and alterations to worldview). However, respondents reported a high degree of resilience and were not aware of suffering impairment consequent upon these experiences. Such resilience was attributed to a variety of protective mechanisms to which the respondents have recourse at a personal and professional/organisational level. These resilience factors arise from: the nature of the relationship between the professional and the victim of trauma/traumatic material; the context of the working environment; limitations on empathic engagement; and, the practise of self-care. This study has implications for other occupational groups outside of the therapist/client relationship that may wish to draw on and foster resilience in working with victims of trauma/traumatic material.

**Keywords:** *Vicarious trauma, Resilience, Criminal lawyers, Grounded theory.*

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### 1. Introduction

Vicarious trauma (VT) is said to occur when professionals who work with victims of trauma find their own cognitive schemas disrupted by the cumulative effect of exposure to traumatised clients or traumatic material (McCann & Pearlman, 1990). These internal changes come about principally as a result of empathic engagement with victims of trauma (McCann & Pearlman, 1990) and are considered enduring and chronic in nature (Maltzman, 2011). While persons with VT may exhibit some of the symptoms of posttraumatic stress disorder, VT is underpinned by a constructivist self-development theory and defined therefore primarily by cognitive alterations or disruptions that may, in certain conditions, lead to ensuing symptomatic distress (Pearlman & Saakvitne, 1995).

Certain protective factors mitigate against a therapist's susceptibility to VT with the work environment being considered a critical modifying factor (Pearlman & Saakvitne, 1995). Vrkleviski and Franklin (2008) were the first to explore the construct of VT within the legal profession and found that levels of VT were higher in lawyers practising criminal law than in lawyers practising civil law. Levin et al. (2011) found that criminal lawyers were found to be at a higher risk of developing symptoms of VT, secondary traumatic stress and/or burnout than the administrative staff working in the same US Public Defender's office.

Given the dearth of literature in relation to the impact of VT on this understudied group, a grounded theory study was considered an appropriate methodology to explore and give meaning to the lived experiences of a cohort of Irish barristers practising criminal law and what, if any, strategies are utilised by this group in dealing with traumatic material and victims of trauma.

### 2. Method

#### 2.1. Respondents and Procedures

Fourteen respondents were recruited from barristers practising criminal law in the Irish courts. Years in practice ranged from a minimum of 10 years to in excess of 30 years. Respondents were recruited initially by way of purposive sampling and, following early analysis of collected data, further respondents were recruited by way of theoretical sampling as

concepts emerged from the data that required further exploration. One-to-one unstructured interviews were conducted with twelve of the barristers with the remaining two barristers constituting a focus group to explore emergent themes. Members of the focus group were also available on an on-going basis for member-checking and continuous input as theories emerged and were tested. A teleconference was held with the Chief Executive Officer of LawCare in England, considered a key stakeholder in this area. In total 10 hours and 32 minutes of interviews were conducted. Written and voice recorded memoranda were also kept at all stages of the research study to reflect what Corbin and Strauss (2008) consider the “running logs of analytical thinking”.

## 2.2. Data Analysis and Coding Procedures

The interviews were transcribed and analysed using the methodological approach of constant comparison and coding until a level of theoretical saturation was achieved (Strauss and Corbin, 1990). Coding aided the distillation of themes towards a core category and emergent theory. To ensure that the findings accurately reflected the experiences of the respondents two validation strategies were used, namely member-checking and inter-rater coding. The ongoing memoranda that were generated allowed for ongoing reflexivity which was crucial for the interviewer who is a barrister, although not practising criminal law.

## 3. Results and Discussion

Analysis of the coding identified a core category of “an armoury of resilience” that may protect the respondents in this study from the potentially impairing aspects of vicarious trauma.

### 3.1. Impact of the Work

All respondents described cases they found difficult, with cases involving child abuse considered the most distressing. The process of a criminal trial was characterised as “*raw and unvarnished*”. Several respondents reported experiencing recurring nightmares, intrusive memories or feelings of hyper-vigilance, especially surrounding personal safety or the safety of their families, which they believed arose as a direct consequence of their work. The majority of respondents however did not report such overt experiences but did consider that their work had affected them to some degree, especially given its cumulative nature: “*a little like passive smoking, you cannot but be adversely affected by constantly doing cases which arise out of circumstances which are, to put it lightly, depraved and nasty and sometimes absolutely horrific.*” One participant considered that the work “*definitely makes you harder*”; “*it coarsens you.*” The majority described experiencing conditions that have been implicated in VT but none felt that they were significantly impaired or damaged by the nature of the work that they do: “*I don’t feel impaired by it. I don’t feel damaged actually. I feel that these were big challenges emotionally that I have resolved*”.

### 3.2. Lawyers not Therapists

Respondents were acutely aware of their role within the legal process: “*They have counsellors, they have family, they have friends – but I need to be the best lawyer they can get.*” None of the respondents considered that a therapeutic alliance should exist with the complainants or the accused. “*You don’t allow yourself to get sucked into a situation where you’re there to offer emotional succour or psychological support*”, stated one participant. Or, put succinctly, “*It is not my role to salve*”. There was absolute clarity around the relationship and role of the barrister, the complainant and the court. Clear understanding and delineation of roles is considered a factor that reduces VT in an organisational setting (Hatcher & Noakes, 2010). The ability to set and communicate boundaries is considered by Pearlman and Saakvitne (1995) to strongly mitigate against VT and as highly protective to both client and therapist (Harrison & Westwood, 2009; Maltzman, 2011).

### 3.3. Empathy and the Emotional Rubicon: “Unhooked it becomes a Monster”

All respondents considered that the role of empathy must be very circumscribed: *“You do have to be careful to use it as something in your armoury rather than, you know, something that’s a portal into something vulnerable in yourself.”* While it was acknowledged as important to appreciate what a complainant or accused was feeling, respondents were adamant that this must not involve absorbing their feelings or over-identifying with them. You don’t *“become your client”* and *“the last thing you want to do is to, in fact, put yourself in her shoes”* were examples of the views expressed. No ostensible difference emerged between male and female respondents in relation to the role of empathy. Empathic engagement is recognised as perhaps the key component in the development of VT (McCann & Pearlman, 1990). However, within the criminal law system there appears to be a clear line that delineates cognitive empathy, or an awareness of another’s feelings, from affective empathy or feeling what another feels (Hoffman, 2011; Pearlman & Saakvitne, 1995). Affective empathy, which is a hallmark of the therapeutic relationship (Pearlman & Saakvitne, 1995), may lead to a sense of being overwhelmed or transformed arising out of the cumulative effect of VT (McCann & Pearlman, 1990). In contrast, cognitive empathy, which is a hallmark of the legal relationship, may help protect against the negative effects of VT in that it allows for an appropriate distancing (Harrison & Westwood, 2009). Being aware of and respecting the boundary between cognitive and affective comprehension of another’s feelings is considered highly protective and a key concept in mitigating against VT (Pearlman & Saakvitne, 1995).

### 3.4. The Process Protects

Many of the respondents described being more vulnerable in their early years of practice to the *“emotional maelstrom”* associated with their work. However, the exposure to traumatic cases is gradual and in the early years barristers are led by a senior colleague who was described by one respondent as being *“somebody to shelter behind”*. The literature is equivocal in relation to the protective nature of professional experience with regard to such constructs as VT, secondary stress and burnout (Dunkley & Whelan, 2006; Levin et al., 2011). The cumulative nature of VT may tend to suggest a higher degree of susceptibility for those with more experience (Levin et al., 2011); however, to Pearlman and Saakvitne (1995), experience is considered a highly adaptive resource that allows for contextualising of, and distancing from, trauma.

### 3.5. Self-Care

All respondents referred to some features of self-care that operate at either an individual or organisational level within the profession, namely, an ability to vary the subject matter of cases, collegiality, humour, a balance between work and personal life and the ability to derive enjoyment from the job. The majority of respondents consciously avoided bringing work home. The importance of having interests outside of work was also stressed. All respondents expressed enormous career satisfaction with the most common response to whether they enjoyed their work being exclamations of *“I love it”*. When asked to consider what it was that they actually *“loved”*, the majority of respondents described finding it very rewarding and stimulating at a cognitive or cerebral level. Respondents also noted that barristers in Ireland may have both a civil and criminal law practice and this ability to vary work was considered positive. Notwithstanding the heavy case loads of busy practitioners, respondents viewed each case as a discrete piece of work from which they could move on in a manner that appeared to be part of the natural cadence of the working environment: *“You get on to the next big brief and you find you forget a lot of essential details about old cases”*. There was no time to *“ruminate”*, or *“mull over”* past cases. It is *“literally like pulling the lever – you just discharge everything that’s there and you move on to the next case”*.

Self-care is considered as one of the most efficacious way in which VT may be modified (Berzoff & Kita, 2010; Pearlman & Saakvitne, 1995). The ability to vary the nature of the work or mix civil work with crime is considered a highly protective factor, with Levin et al. (2011) specifically recommending the rotation of lawyers between different services in the US District Attorney system. Pearlman and Saakvitne (1995) also recommend that therapists

develop mixed caseloads. Collegiality or a sense of connectedness to people who share the same experiences is also highly protective (Burns et al., 2008; Pearlman & Saakvitne, 1995) and a necessary ingredient in sustaining a cohesive working environment (Burns et al., 2008). Humour, in particular, is identified as promoting resilience in that it helps maintain a sense of perspective (Pearlman & Saakvitne, 1995) and further fosters collegiality and cohesion (Burns et al., 2008). Deriving satisfaction or a degree of efficacy from one's work is an important feature of self-care (Burns et al., 2008; Gibbons, Murphy & Joseph, 2011; Vrkleviski & Franklin, 2008) and is identified specifically as a factor that modifies VT (Pearlman & Saakvitne, 1995). Beyond the working environment the importance of having and engaging fully with a personal life is considered crucial (Pearlman & Saakvitne, 1995).

### **3.6. An Armoury of Resilience or the Repertoire of Denial?**

Having considered the preliminary results of this study, the CEO of LawCare was concerned that many of the protective measures identified by the respondents were part of a "*repertoire of denial*". She considered that trained skills such as rationalising, intellectualising, comparing and minimising were being used to either consciously, or unconsciously, deny how the nature of the work was affecting the respondents. The present study did not seek to go beyond the lived experience of the respondents but future studies would benefit from exploring this concern.

In this study respondents described a variety of conditions arising out of their work that have been implicated in and can lead to the experience of VT such as hyper vigilance, intrusive memories and alterations to worldview (McCann & Pearlman, 1990; Pearlman & Saakvitne, 1995). However no respondents were aware of suffering any level of impairment or damage consequent upon these experiences. The reality for these respondents speaks to a greater resilience and fortitude than is found in the limited literature on VT and criminal lawyers. It also creates a more nuanced picture than is considered by LawCare which viewed barristers as more affected by their work, at a deep emotional level, than they may realise. All respondents identified and gave meaning to an armoury of resilience that is highly protective on a personal and professional level. These protective measures are consistent with the features of resilience identified in the literature and are, in particular, consistent with Pearlman and Saakvitne's (1995) professional, organisational and personal strategies for ameliorating or modifying VT. The results of this study are more congruent with recent research on the role of resilience in trauma theory that suggests that resilient individuals, notwithstanding that they may exhibit effects of trauma exposure, such as intrusive memory or disturbed sleep, are capable of functioning at normative baseline levels (Bonanno & Mancini, 2012). Bonanno and Mancini (2012) in fact consider this a more common response to exposure to trauma or potential trauma with "disruptions to functioning" considered transient in nature, if occurring at all.

## **4. Conclusion**

Consideration of the categories that emerged from the data suggest that being affected by working with traumatic material and being impaired as a consequence of that effect does not necessarily follow where the nature of the professional relationship, and the context of the working environment, provide for strong mediating factors to which the professionals may have recourse at a personal and organisational level. Awareness of such protective modifying factors may have implications for other occupational groups who may draw on and develop modifying factors arising out of their particular working environment that will assist in building resilience to working with victims of trauma and traumatic material.

## **5. Limitations**

The method of recruitment in this study reduced self-selection bias which was considered a problem in previous studies of this population (Levin et al., 2011; Vrkleviski & Franklin, 2008). However, a potential researcher-selection bias may be present in that the persons invited to participate in this study were all experienced practitioners with established practices. Such strong resilience may not be seen at all stages of career progression.



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## A SCOPING REVIEW CONSIDERING THE APPLICABILITY OF RESTORATIVE JUSTICE TO CASES OF SEXUAL ASSAULT

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### Abstract

**Background:** The applicability of restorative justice (RJ) to sexual offences is highly contested; with strong views being expressed in both support and opposition to the notion. However, there is a relative dearth of randomized-controlled studies investigating the experience and impact of RJ on victims of sexual violence. *The aim* of this scoping study was to explore the arguments inherent in the debate and to examine the nature, validity and consistency of the evidence substantiating the different arguments. The research question was to what extent might RJ meet the justice and recovery needs of victims of sexual assault; where sexual assault includes both childhood sexual abuse and adult sexual assault. *Method:* The method employed was Arksey and O'Malley's (2002) six stage framework since this involves the synthesis and analysis of both non-empirical literature and studies which employ diverse designs into the review process. The search terms used were: sexual assault or sexual abuse or sexual violence or sexual offen\* or gendered violence or child sexual abuse or serious violence or severe violence and restorative justice or conferencing or victim/offender mediation or victim offender dialogue. A variety of electronic databases and search engines were used in the search for data. No limits were placed on the search with regards to year of publication. However, the earliest paper identified was published in 1998 and the data collection was completed at the end of June 2012. The search was confined to articles/ reports etc. published in the English language. The reference lists of articles found were searched to identify other possible sources for inclusion. Initially, the reading of titles and abstracts identified 58 sources which were potentially suitable for inclusion. *Conclusions and discussion:* The findings suggest that within certain parameters, RJ might have potential to assist the healing process and offer a modicum of justice which might not be otherwise obtained. The necessary criteria include issues such as sufficient resources to allow for adequate preparation of all participants, that the process be managed by victim as opposed to offender-led services and that the timing is determined by the victim and not the constraints of the criminal justice system. Furthermore, the findings offer direction for future research which in turn might aid the progression of the debate to a stage where practitioners will be able to utilize the empirical findings in formulating judgments as the real applicability of RJ to cases of sexual assault.

**Keywords:** *Restorative justice, Sexual victimization, Conferencing, Rape, Child sexual abuse.*

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### 1. Introduction

There is a multitude of restorative justice practices that share the distinctive feature of facilitating communication between the victim and offender with the purpose of providing the victim of crime the opportunity to tell his/her story of the harm done to them by the responsible person and for negotiated decisions to be made as to how the harm might be repaired. Daly (2000) contrasts restorative justice (RJ) with traditional justice by characterizing the latter as being predominantly concerned with the punishment and treatment of the offender, where the victim is conceptualized as a mere witness to be used in ascertaining the guilt or 'innocence' of the defendant. Conversely, she contends that in RJ the victim plays more central role, and that the harm done to the victim and the community becomes the focus, as is the victim's input into decisions regarding how the offender should repair the harm they have caused (albeit symbolically).

There is a growing body of evidence of the effectiveness of RJ in reducing the risk for reoffending, particularly for crimes of interpersonal violence (Shapland et al. 2008; Wager et al., under review). Additionally, there is evidence to suggest that some survivors of sexual violence seek dialogue with their perpetrators (Pali & Madsen, 2011; Umbreit, 1999). Their motivations include the need for answers to questions, desire to express their anger, seeking an apology, to reinstate a sense of safety, to prevent the victimization of others, to move on and to

restore their dignity. All of which are concordant with the healing and justice needs identified by Herman's (2005) interviewees who were survivors of gendered-violence.

However, the notion of the applicability of restorative justice to sexual offences is a highly contested debate; with strong views being expressed in both support and in opposition to the notion. Due to the perceived ethical concerns voiced by those in opposition to such an application of restorative justice (RJ) there is a paucity of scientifically rigorous studies investigating the impact of RJ on either victims or offenders of sexual violence. Consequently, it is unclear what evidence is used to support the claims, leading to the suggestion that the debate has proliferated in an 'empirical vacuum' (McGlynn, et al., 2012).

## 2. Objectives

- To collate and examine the range and nature of the arguments for and against the applicability of RJ to cases of sexual assault.
- To ascertain the validity of the evidence currently available to empirically evaluate the veracity of the arguments.

## 3. Methods

This scoping study was conducted using Arksey and O'Malley's (2002) six stage framework. Davis et al. (2009) state that a: 'scoping review involves the synthesis and analysis of a wide range of research and non-research material to provide greater conceptual clarity about a specific topic or field of evidence (p.386).' The inclusion of both non-empirical literature and studies which employ diverse designs into the review process is favorable in this instance since there were relatively few empirical studies which address the research question (Levac et al., 2010).

The search terms used were: sexual assault or sexual abuse or sexual violence or sexual offen\* or gendered violence or child sexual abuse or serious violence or severe violence and restorative justice or conferencing or victim/offender mediation or victim/offender dialogue. The following electronic databases were searched: SocIndex, Google Scholar, PsychInfo, Sage Criminology Collection, Psychological and Behavioural Sciences Collection, PubMed. No limits were placed on the search with regards to year of publication since the use of restorative justice in any context has been only recently introduced into Western societies. However, the earliest paper identified was published in 1998 and the data collection was completed at the end of June 2012. The search was confined to articles/ reports etc. published in the English language. The reference lists of articles were searched to identify other possible sources for inclusion. This identified 58 suitable publications.

**Arguments opposing the use of restorative justice.** There is a plethora of objections against the application of RJ in the context of sexual assault. Some arguments are essentially opposing the use of RJ as an alternative to the conventional adversarial justice system; whereas others apply equally to cases where RJ might be used within the conventional justice system as an additional intervention. First, it is argued that diverting cases of sexual violence from the court system might serve to diminish the apparent seriousness of the crime (McGlynn et al., 2012) by demonstrating what might be perceived as a lenient or 'soft option' to the punishment of offenders (Roberts, 2002). There is some concern that this might have a detrimental impact on the hard won progress already made by the feminist movement in elevating the position of sexual violence on the political and public agendas (Schroeder, 2005, cited in Pali & Madsen, 2011). However, it must be remembered that currently only one place - South Australia - uses RJ as a diversion from the traditional justice system and this is only in cases where young offenders plead guilty.

Secondly, there are fears that such an informal process may serve to revictimise the victims, due to the power imbalance between victim and offender (Julich & Buttle, 2010), or by jeopardizing the actual safety of the survivors (Stubbs, 2002) and future potential victims (Cameron, 2006; McGlynn, et al., 2012; Pali & Madsen, 2011). Such proponents of this fear tend to emphasize that the harmful effects of this could made all the more worse in situations

where there was a continuing relationship between the victim and the offender (e.g. sibling incest). However, others such as Wallace and Doig (1999, cited in Daly, 2002) suggest that in relation to young offenders, RJ when combined with therapeutic intervention which partly serves to prepare the offender for the meeting, is most usefully applied in relation to offenses where there are on-going relationships. The specific issues raised in relation to the imbalance of power include the potential for revictimising the survivor by; a) pressurizing him/her into conference participation, reaching/accepting an unsatisfactory agreement (Coker, 2002; Schroeder, 2005, cited in Pali & Madsen, 2011), responding to the offender with forgiveness (Koss, 2010), and/or the offender being forced into offering an insincere apology (McNevin, 2010), or b) that offenders will use the opportunity to manipulate the survivor and further endorse the survivors' engagement in self-blame. Additionally, there is concern that the dynamics within conferencing which are ordinarily assumed to promote positive change in both parties (e.g. the telling of the harm done and igniting of empathy for the victim) may not be effective in the case of sexual assault. Some argue that sex offenders may experience inappropriate excitement on hearing their victim tell of the distress, which might reinforce their pro-offending attitudes (Rubin, 2003) rather than promote feeling of empathy and remorse. This might be most likely when the RJ system has been developed on the basis of the offenders' needs (Mika et al., 2002). The potential for the imbalance in power between the survivor and victim is posited to be most likely to exert pernicious effects when the facilitator in the conference sees their role as defined by a position of neutrality and impartiality (Julich & Buttle, 2010). Thus others have proposed that experts in sex offending and victimization should be involved in the conference process to both adequately prepare both parties and to challenge attempts to blame or manipulate the victim. Additionally, the process could be revictimizing, where the victims are permitted to maintain, or inculcated with unrealistic expectations of their potential experience during, and outcome from, meeting with their offender (Mika et al., 2002). Hence, assessment and management of survivors' motivations and expectations are essential, as is an honest indication of what RJ might offer.

Finally, there is concern over the resource intensive nature of RJ (Julich, 2010; Miers, 2001). It has been noted that even RJ initiatives dealing with considerably less serious and complex cases than as sexual assault require resources to permit appropriate preparation of both the victim and offender and possibly their respective family members, follow-up support of both the victim and the offender, and adequate training of the facilitators. It would be anticipated that cases of sexual assault may require even more extensive preparation and follow-up support of the victim, offender and their families, more specialist training of the facilitators and the fees for the services of experts in both sexual offending and sexual victimization. It is argued that this might result in either the development of a system which is inadequately resourced to serve both the victims' and the offenders' needs, or that valuable and scarce resources will be diverted away from established victim services in order to support RJ initiatives.

With regards to criticisms of using RJ as an adjunct to conventional justice, victims of various crimes, who participated in the *Listening Project* (Mika et al., 2002) which aimed to explore their experience of engagement of RJ, feared that the RJ system would replicate the unsatisfactory treatment of victims of the adversarial system, which is particularly likely in a system that has been established with the welfare and rehabilitation interests of the offenders at its core (Herman, 2005).

**The anticipated benefits of RJ.** It is postulated that when using RJ the survivor is given a more central role in the justice process, which could serve to rectify, or at least not replicate, the disempowerment experienced during the assault (McGlynn et al., 2012). Where RJ is used as an adjunct, it has been suggested that the process will address survivors' needs that are left unmet by, or go some way to ameliorate the harm done by the secondary victimization arising from engagement with, the adversarial system. Such arguments include that it would permit the victim to tell their story, in their own words and without interruption; a feature which is negated in the adversarial system, but which is so often desired by survivors. They contend that RJ could extend the potential for justice and healing to a wider array of victims than are currently served by the adversarial system. For instance, cases deemed unlikely to result in a

conviction and thus dropped by the Crown Prosecution Service and the families/partners and friends of survivors and perpetrators who may feel equally harmed by the offence. An RJ has potential to publically validate the victims' experience and provide assurances and recognition that they are not to blame for the assault. This is believed to be particularly pertinent in cases of sibling perpetrated child sexual abuse (McNevin, 2010), where the RJ process permits not only the victim, but also their parents to develop an appreciation of how the offending family member manipulated, coerced and maintained the secrecy of the victim. This can aid the parents to appropriately apportion blame and responsibility, and also this knowledge can inform their future efforts aimed at creating a safe environment for their children. Additionally, RJ more generally is believed to focus more on subjective, rather than legal, conceptualizations of crime; thus fostering a more holistic understanding of the offense, rather than one confined to legal relevancies (Curtis-Fawley & Daly, 2005; McGlynn, et al., 2012). This fact may facilitate the condemning the violence in ways that are meaningful and consequential for all parties.

Arguments for RJ which seem more pertinent when it is used outside of the adversarial system, such as in the application of RJ principles to lawsuits against a Rhode Island church for clergy perpetrated child sexual abuse (Carroll, 2002) include: The process is more likely to encourage admissions of guilt by the perpetrator (McGlynn, et al., 2012), rather than the more common denials inherent in the adversarial setting; thus the perceived necessity of publically humiliating the survivor through attacks on her/his character and behaviour, in order to discredit her/his testimony, becomes redundant (van Wormer & Berns, 2004). Furthermore, this avenue for justice could also be available for survivors who did not wish to formally prosecute the offender.

#### **4. The sources of evidence and conclusions**

Very few articles in the review were empirical evaluations of the effectiveness of RJ in relation to sexual assault cases. This is despite a number of organizations around the western world who offer RJ in response to diverse sexual assault offences. For example, in Manchester UK AIM developed and have been running a programme for children/young people who engage in sexually harmful behaviour since 2006. However, to-date there is no published evaluation, although this might be attributed to the small number of cases that have undertaken the intervention. The former RESTORE project in Arizona - which permitted victims of 'misdemeanor' sexual assault where the responsible person and survivor were not in an intimate relationship, to have their cases diverted out of the court process and into RJ - is reported to have undergone evaluation, but the full details of which have not been discovered in this review process. Whilst the project has closed, this need not preclude a follow-up comparison of recidivism rates between the cases where the survivor agreed to RJ and those where they declined the offer. Umbreit et al. (2006) conducted an evaluation of RJ projects in Ohio and Texas which were delivered in response to serious crimes. Whilst the sample included a number of sexual assault cases and findings offer a favorable assessment of RJ, it may be inappropriate to group sexual violence with other forms of violence due to the stigmatizing nature of sexual assault for both the survivor and the responsible person. Maybe a separate analysis could be performed for the sexual offences.

The majority of sources were position statements, or critical reflections on the potential applicability, discussions of the necessary considerations in planning an RJ initiative for sexual assault cases (e.g. Johnstone, 2011; Koss, 2010), accounts of the views of people other than survivors of sexual violence (e.g. victim advocates). There has been a paucity of investigations focusing on the actual experiences and outcomes either during or following the RJ programme. To compensate for this, the first part of this review explored the reported experiences of 10 survivors who had participated in RJ (Wager, in press). Despite cautions regarding the validity of the accounts, this exercise suggested that under certain circumstances RJ might be positively received by, and be beneficial for survivors' healing from sexual violence, however the impact on offenders awaits more rigorous assessment.

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# WHAT EXPLAINS FEAR OF CRIME BEST: VICTIMIZATION, VULNERABILITY, SOCIAL CONTROL THEORY OR SOCIAL PROBLEMS THEORY?

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## Abstract

Four major views dominate the scientific literature concerning the construct fear of crime: victimization perspective, vulnerability perspective, social control perspective and social problems perspective. The aim of this study is to examine the explanatory power of these four perspectives at the same time. Descriptive and regression analysis was conducted. We found the typical differences between young and old citizen, men and women, night and day. Young citizen are less afraid than old ones, men are less afraid than women and people feel more secure during the day than in the night time. Moreover, we found that all four views are able to predict fear of crime in the night significantly. Nevertheless vulnerability provided the highest beta-coefficient. Comparing the results it can be concluded that variables at the micro level have a higher impact on fear of crime than variables at the meso and micro level.

**Keywords:** *Fear of Crime, Vulnerability, Victimization, Social Control, Social Problems.*

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## 1. Introduction

Four major perspectives dominate the scientific literature concerning fear of crime: victimization, vulnerability, social control and social problems perspective. The goal of our study is to test the explanatory power of these four perspectives in predicting fear of crime simultaneously. Victimization and vulnerability perspectives address the micro level of the individual and suggest that citizens who had been victims of a crime themselves, know victims of crime or feel vulnerable based on perceptions of their own defense capability as limited, overestimate the likeliness of crime. Social control perspective attributes fear of crime to informational and social control in residential areas and therefore is located at the meso level. According to this view social changes as industrialization and moving people lead to reduced social control. As a consequence changes in the physical environment occur. Vandalism and visible damages, graffiti, destroyed public phones and shabby houses are seen as a catalyst for crime as well as fear of crime in the population. On the contrary well integrated and highly cohesive neighborhoods can be a protective factor and reduce fear of crime. Social problems perspective addresses the establishment of crime at the macro level. It is based on social constructivism and attributes perception and behaviors to supporting influences from policy making and mass media. Violent movies and media coverage may increase the fear of crime in the general public. Fear of crime is a well-researched construct. Especially in English speaking countries a great amount of theoretical and empirical studies were conducted. As a result there are studies that prove and disprove each of the four theoretical perspectives on fear of crime.

Questionnaire surveys found only weak or no correlations between direct victimization and fear of crime (Garfalo, 1979; Toseland, 1982; Hale, 1996). In further studies it was determined that people who had been victimized are more fearful (Skogan & Maxfield, 1981), overestimate the likeliness of being victimized again and perceive their neighborhood as more dangerous (Hough, 1985; Winkel, 1998). Recapitulatory the findings vary in magnitude and direction. Interestingly the impact of indirect victimization on fear of crime is much more stable. Indirect victimization means that people have relatives or friends who had been victimized. Many studies showed that people, who experienced indirect victimization, express a higher level of fear of crime (Maxfield, 1984; Ferraro, 1996). Researchers assume that informal communication with family and friends has a mediating effect, probably because people can identify themselves with the victim. Another variable that has been considered as a cause of fear

of crime is the concept of vulnerability. It describes the perceived ability of a person to escape or resist in case of an attack. Empirical studies demonstrated that people who perceived themselves as vulnerable due to their age, sex or physical condition tend to be more fearful (Clemente & Kleiman, 1977; Skogan & Maxfield, 1981; Killias & Clerici, 2000). These findings may also explain the fear of crime paradox, which represents an inversely related connection between the expressed fear of crime and the actual risk of victimization among demographic groups. For example females and older people are more fearful than their counterparts although their risks for victimization is substantially lower (Ferraro & LaGrange, 1987; Scarborough, Haislip, Naok, Lucas & Alarid, 2010)

Statistical analyses concerning the impact of social disorder on fear of crime provide significant bivariate relationship as well (Hope & Hough, 1988; Hohage, 2004). On the one hand multivariate analysis of Hirtenlehner (2006) weakened those findings. His study on fear of crime in Austria could only confirm the broken window hypothesis of Wilson and Kelling (1982) and found no protective impact of interpersonal trust and collective efficacy that could reduce fear of crime. On the other hand Hohage (2004) and Scarborough et al. (2010) were able to show that high social cohesion and social networks within a neighborhood substantially decrease fear of crime. Summarizing past and recent research there is a well-established influence of social disorder and incivilities on fear of crime.

The influence of media use and fear of crime is less explored than the other theoretical perspectives. Nevertheless there is evidence to suggest that people who live in areas, where local crime has much broadcasting time are more fearful (Gordon & Heath, 1981; Jaehing et al., 1981). Particularly, TV magazines that report about real criminal acts increase the fear level of people, because they demonstrate how easily situations can switch from normal to violent (Reuband, 1998).

Although there is a huge body of research concerning fear of crime, only a few studies have tried to integrate the four perspectives of its genesis for a German sample. For this reason it is our aim to test the explanatory power of the four perspectives in one analysis in order to find out, which perspective explains fear of crime best.

## 2. Method

We collected questionnaires from 3982 citizens of 16 German cities and rural districts. The questionnaire contained items for fear of crime (day/night, standard indicator), direct and indirect victimization, perceived vulnerability, media use, social cohesion, perceived vandalism and demographic variables such as age and sex. All items were taken from well-established national and international studies of fear of crime (Boers, 1991; Feltes, 1995; Killias & Clerici, 2000; Nonnenmacher, 2007). The gathered data did not represent the German population perfectly. In order to avoid biases the data have been weighted.

## 3. Results

First the respondents were asked to rate how safe they feel walking alone during the day/night in their neighborhood on a scale with "very unsafe = 1", "somewhat unsafe = 2", "somewhat safe = 3" and "very safe = 4" (standard indicator). In Figure 1 the average ratings of the respondents are shown. In general the respondents feel very safe during the day and rather safe during the night time.

**Figure 1:** Average rating on standard indicator

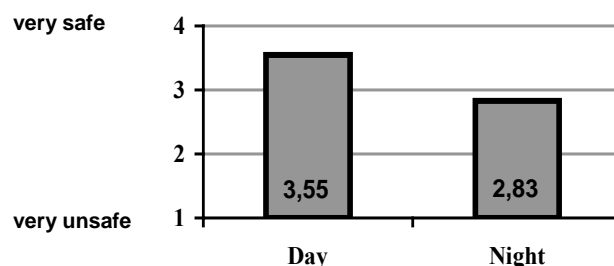
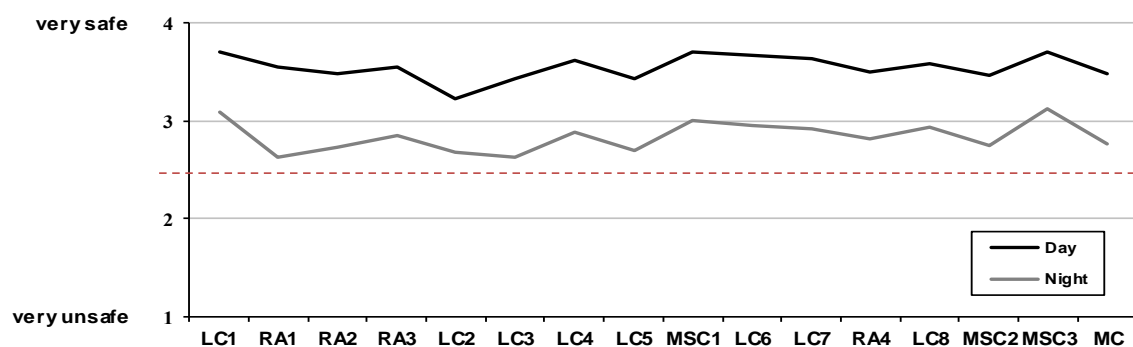




Figure 2 represents the average rating for the standard indicator separated for the different urban and rural areas (rural area = RA, medium-sized city = MSC, large city = LC, megacity = MC). We didn't find any big differences concerning the city size or the distinction between urban and rural areas. The respondents feel (very) safe in cities of every size just like in villages.

**Figure 2:** Average rating on standard indicator separated for city size and rural areas



Regarding the demographic groups we replicated the results of previous research. We identified well-known differences between men and women, young and old people, victimized and non-victimized people. Women are more fearful than men, old people are more fearful than young people (see table 1) and direct as well as indirect victimized people are more fearful than non-victimized people (see table 2).

**Table 1:** Fear of crime level – demographic groups - sex and age

	overall	men	woman	15-30 years	30-60 years	> 60 years
Day	3,55	3,52	3,58	3,65	3,59	3,40
Night	2,83	2,93	2,71	2,84	2,94	2,64

**Table 2:** Fear of crime level – demographic groups - direct and indirect victimization

	overall	direct victimization	no direct victimization	indirect victimization	no indirect victimization
Day	3,55	3,26	3,58	3,39	3,63
Night	2,83	2,39	2,87	2,53	2,97

Furthermore we found that people who are not well integrated in their neighborhood are more fearful just as people that watch reports on crime oftentimes or are highly vulnerable (see table 3). All differences were tested by t-test and are significant.

**Table 3:** Fear of crime level – demographic groups – vulnerability, social cohesion and media use

	high vulnerable	low vulnerable	high social cohesion	low social cohesion	high media use	low media use
Day	3,07	3,72	3,67	3,08	3,46	3,74
Night	2,25	3,26	3,03	2,13	2,69	3,14

In order to test the influence of the four theoretical perspectives a hierarchical regression analysis was conducted. We only used fear of crime during the night as dependent variable, because people are not afraid during daytime. Age, sex and level of education were used as control variables and therefore introduced to the analysis at first. Then the theoretical perspectives that have been operationalized by one or two indicators are included in the regression stepwise from macro level over meso level to micro level.

**Table 4:** *Regression analysis fear of crime*

	Fear of Crime at Night							
	Model 1		Model2		Model3		Model4	
	$\beta$	C.R.	$\beta$	C.R.	$\beta$	C.R.	$\beta$	C.R.
Age	-,145***	-9,04	-,102***	-6,25	-,096***	-5,534	-,042**	-2,57
Sex	-,126***	-8,01	-,144***	-9,18	-,152***	-10,14	-,109***	-7,54
Education	,118***	7,37	,105***	6,63	,089***	5,86	,073***	5,11
Media use			-,165***	-10,28	-,164***	-10,68	-,130***	-8,93
Social cohesion					-,278***	-18,80	-,193***	-13,46
Vandalism					-,087***	-5,54	-,064***	-4,36
Direct Victimization							,060***	4,186
Indirect Victimization							,193***	13,189
Vulnerability							-,272***	-18,03
R <sup>2</sup>	,043		,068		,153		,265	
$\Delta R^2$			,025		,085		,112	

\*\*p< ,01; \*\*\*p<,001

The results show that the macro level operationalized by media use explains the least variance in fear of crime by night and its regression coefficient is reduced when the other variables are included in the analysis. Contrary the micro level operationalized by victimization experience and vulnerability has the highest explanatory power. Vulnerability also possesses the highest beta coefficient. This means that vulnerability is the best predictor among the independent variables for fear crime at night followed by indirect victimization and social cohesion, which have the same coefficient size. Nevertheless social cohesion and the perceived vandalism in the neighborhood as macro level variables explain less variance than the micro level variables. Interestingly our study again approves that indirect victimization is a better predictor for fear of crime than direct victimization although victims of crime are more fearful in the night than people, who experienced indirect victimization through relatives and friends (see table 2).

#### 4. Conclusion

People in Germany feel safe wherever they live – in large cities, in small cities or in rural areas. We found the well-established differences between day and night, men and women, young and old people. As one of the few studies in Germany we integrated the main four theoretical perspectives on the genesis of fear of crime in one study and found that especially the variables at the micro level have the most impact on the explanation of fear of crime.

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## THE VICTIMS' STATUS IN THE ACTING OUT

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### Abstract

**Background:** An homicide needs three actors: i) a motivated perpetrator and ii) a potential victim who come together in iii) a unique environment less guard (Felson & Van Dijk, 1993). To Von Hentig (Von Hentig, 1948), victim is not necessary a passive object during the acting out. The victim can be active according to its resistance. In 1958, Wolfgang developed the "victim precipitation" concept. Thus, both "life style model" and "routine activity approach" defined a typology of risky victims. **Objectives:** The aim of our research is to develop a profile of victims of particular crimes, and to confront it with the generic profile victim established by Von Hentig (1948). A particular crime is defined as any act less the common motive (passion, revenge, theft). **Design:** Our exploratory analysis focuses on 90 cases of particular crimes committed by 16 perpetrators. We note a prevalence of violent and sexual crimes. Our encoding descriptive data from a file for reading, we were able to identify six relevant variables (only victimological): (V1) Victim under the influence of a psychoactive product; (V2) of the Social Situation victim (V3) relational situation of the victim (V4) Location sentimental of the victim (V5) Age of victim (V6) Type of the victim. **Results:** Our quantitative analyzes have highlighted the lack of effect of variables "victim under the influence of a psychoactive product" (V1) and "emotional status of the victim" (V4). We see a prevalence of psychosocial and situational variables related to the victim within 90 homicides for individuals 'gender' (V6), "age" (V5), the "social aspects" (V2) and "relational" (V3). We obtain similar results to those described by Von Hentig (1948), that is to say, a kind of victimology profile female 17-24 years (15-25 years to Von Hentig), unemployed, with a situation relational stable and extraverted (activities outside home to Von Hentig). **Discussion:** Before the interaction, the passive role of the victim seems more determined by the perception/interpretation of the author and the context (Wikström & Treiber, 2009). **Conclusion:** No victim, no crime. Even if the victim can be precipitant during the interaction with the author, it plays a minor determinant before acting out. To conclude, it appears us very important to underline that a victim is not responsible for its aggression, cause of it becomes a potential victim only on the dysfunctional referential of a perpetrator who suffers from a perceptive bias and a poor behavioral register (Born, 2005).

**Keywords:** Victim precipitation, Latent victim, Environment, Perpetrator.

### 1. Introduction

According to Cohen & Felson (1979) and their "routine activity approach", an homicide needs three indispensable factors at a unique time and space. The first is a perpetrator who searches a victim. The second is a potential victim. The third is an environment less guard in which the two previous will meet. To Cornish & Clarke (1985) defined the rational choice theory that the acting out is necessary the result of a rational judgment in which benefits and risks are evaluated by the perpetrator who estimated that there are less costs than benefits to act out. Thus, Brantingham and Brantingham (1984) purposed their criminal patterns theory according to "the life style model". The perpetrator will be attentive in his victim's selection at the environment and the potential victim can play an active role in the acting out: on the one hand cause the types of place it frequents; on the other hand cause its resistance. Wolfgang (1958) developed the "victim precipitation" concept. In a significant number of cases, the victim plays a role "rushing" (eg by its strength, sociodemographic status) in the constitution of crime (Wolfgang, 1958). The hypothesis of "latent victim" of these theories should not lead to blame the victims, as stated in some victim support services. In fact, an average person is a potential victim and victim only as the repository of the perpetrator (Born, 2005), the latter being subject

to malfunction, through perception and interpretation, and a record inadequate and inappropriate social behavior.

To study the perpetrator/victim interactions during the crime, and not only their profiles before the criminal process, the organized/disorganized theory (Ressler, & *al*, 1986, 1986, 1988) stays an essential support for the crime scene investigation, however this theory could be completed with the association of rational and psychological (and geographical) theories. Incorporating of these criminological factors into a situational profile proves to be very precious to determine the victim-offender uncriminal (social and protective factors) and criminal factors (desire to commit crimes in locations where they feel a sense of familiarity; Lersch, 2007). This environmental criminology (Wortley, & Mazerolle, 2008) is so based on the connection between a perpetrator behavior and his/her non-criminal life, and the integration of different rational criminal theories (journey-to-Crime, routine activity theory, rational choice theory, crime pattern theory, geographical criminology; Cornish & Clarke, 1986, Clarke, 1995), psycho-criminological theories (Bennell, Brent, Emeno, & Taylor, 2007) and of different criminal patterns (eg. crime locations, offender type, neighbourhood demographics).

## 2. Objectives

The aim of our research was first to develop a profile of particular homicides victims and to confront the generic victim's profile established by Von Henting (1948) to discuss the role of a victim in precipitating the genesis of the equation criminal "perpetrator-victim-environment" of a homicide. A particular homicide refers to any act that does not led by the common mobile (passion, revenge, theft). Phase targeted by this study is that the interaction of the actors before. This is a preliminary study on the interaction and action sequences in the crime. Victimological researches don't focus on the beginning of the interaction leading to the homicide act. Have Profile victimological a role in the initiation of the act? Our study focuses on variables related to the social situation of victims of particular homicide. Our secondary aim was to underline the interactions of global criminal process.

## 3. Design

Our exploratory analysis deals with 90 cases of particular homicide, committed by 16 perpatrators (single, repeat, multi repeat). We note a prevalence of violent and sexual crimes. Our encoding descriptive data from a file for reading, we were able to identify six relevant variables (victimological only):

- i) Victim under the influence of a psycho-active product; ii) The social situation of the victim; iii) relational status of the victim; iv) Location sentimental victim; v) Age of the victim; vi) Type of the victim.

To study the perpetrator-victim interactions, during different steps leading to crime, we selectionated several variables applied to our 90 homicide cases for quantitative analyses. Two categories involved from these variables :

- crime scene dynamics (13 variables): space-time factors (eg. risk of environment), victimology (eg. risk of victim, social position of victim, link between offender and victim), modus operandi (eg. risk of perpetrator, crime scene staged), personation (eg. methods of selection), overkill.
- social dynamics (4 variables): sociodemographical data, relational capacities, criminal and psychiatric records, stressors during the crime.

For our analyses, the interaction of these variables (crime scene and social dynamics) opens up on two criminal process considerations: the offender-victim categorization with the environment dynamics, and the impact of social dynamics on the precipitation into pre-distal, pre-proximal, and act steps.

#### 4. Results

Our exploratory analysis on 90 cases of particular homicide emphasize a generic victimological profile during the selection step (level -2) by the perpetrator (Table 1).

**Table 1:** *Victim's profile before the criminal process*

Our results			Von Henting's profile
Gender	Female	$X^2(3) = 21.51^*$	-> Female
Age	17-40 (17-24)	$X^2(5) = 49.47^*$	-> 15-25
Social	Unemployed	$X^2(4) = 58.24^*$	-> Unemployed
Relational	social stability (extrovert)	$X^2(3) = 61.67^*$	-> social stability (outside activities)
Toxics		$X^2(4) = 6.91$ (ns)	/
Partner relations		$X^2(4) = 8.15$ (ns)	/

\*  $p < .05$

Moreover, our findings are highlighting that the offender-victim social characteristics lead to considerate separately i) perpetrators without friends and with friends (so the relational capacities), ii) offender developmental trajectory (social maturation; Adler, 1950), iii) environmental risk levels, when theories analyzed the crime scene organization / disorganization or offender uncriminal adaptation / unadaptation. This offender-victim social approach (Turvey, 2007) integrated to criminal process theory is a new combination for studying victim, perpetrator, and environment, with qualitative and quantitative dynamics.

#### 5. Discussion

We see a prevalence of psychosocial and situational variables related to the victim. That is right, before the interaction, the passive role of the victim seems more determined by the perception/interpretation of the perpetrator and the context (Wikström & Treiber, 2009). Even if the victim can be precipitant during the interaction with the perpetrator, it plays a minor determinant before acting out. It appears us very important to underline that a victim is not responsible for its aggression, cause of it becomes a potential victim only on the dysfunctional referential of an author who suffers from a perceptive bias and a poor behavioral register (Born, 2005).

Include victim and perpetrator in the context, and with a dynamic process (time-events), it's the possibility to coordinate the legal psychology and the situational prevention for a better violent risk assessment. This is a seduction hypothesis: a complete analyse of crime with the trajectory, dynamic, and judiciary factors (Dieu, Sorel, Hirschelmann, Combalbert, Bertsh, Person, Villerbu, 2013). In our analyses, we have modeling the criminal process with this presentation (Dieu & Sorel, 2012): Pre-distal (Level -2); Pre-proximal (Level -1); Act (Level 0); Post-proximal (Level 1); Post-distal (Level 2).

More particularly, during the pre-distal (level -2) until act (level 0), when perpetrator and victim are in the situation-problem, whatever criminological and victimological profiles, we involved similar "criminogenetical" dynamics, organized with these steps (Hazelwood, 2004):

- Controlling situation between perpetrator and victim (eg. one or several perpetrators, verbal negotiations, threats with an arm, use to physical violence);
- Reaction of victim (eg. submission, verbal resist, physical resist) and perpetrator (eg. compromise, verbal threats, get out);

- Verbal activities of perpetrator (eg. passivity, threats, aggressively) and victim (eg. opportunities, power-affirmation, sadism, hunger);

In this step, we purpose to include the situational and contextual factors elaborated by the Situational Action Theory (Wikstrom & Treiber, 2009). The environment is an essential element of the crime (Brantingham & Brantingham, 1984) with victim and perpetrator and their routine activities (Cohen & Felson, 1979). The contextual factors can so include the hypothesis of a causal link between dysfunctions and aggression (eg. executive functions or sexual competence : sexual perform anxiety, cognitive distortions, self-control, sexual education; Vuidard, 2011).

- Change of perpetrator attitude (eg. verbal, physical, psychological, economic).

The particular relation between victim and perpetrator is a factor which can be analyzed across the pre-proximal (level -1) and post-proximal (level 1) steps. For exemple, with our analyses about domestic violence (Dieu, ADAVIP37, Hirschelmann, 2013), we observe the perpetrator-victim psychological controlling processes in the pre-proximal level (eg. relational and social integration capacities) and the general typology of perpetrator after situations of violence in the post-proximal level (eg. interactional strategies of the violence events attribution and relational regulation). The situation of domestic violence could be analyzed with the perpetrator-victim perceptions (Born, 2005), like criminal scenarii (Holmes & Holmes, 1998), in the particular time-events (Dieu, Sorel, Person, Mehanna, 2012).

## 6. Conclusion

These results could be so to integrate in a description of the criminal process (Dieu, Dubois, & Sorel, 2012) and the various considerations of the structure time events of the acting out (psychological and phenomenological criterions and criminological and forensic data). The theoretical and empirical observations should be connected to purpose an operational structure which includes the current state of the knowledge of the criminal acting out sequences, as well as qualitative and quantitative dynamics (Dieu & Sorel, 2013). For example, there is not a particular victimological profile at the level -2, only a meeting between perpetrator's perception and a risky environment. However, at the level -1, we can distinguish several victimological profiles, which could be precipitant according social and criminal dynamics.

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## EXPERIMENTAL INVESTIGATION OF THE PERCEIVED CREDIBILITY OF COMPLAINANTS OF SEXUAL REVICTIMISATION

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### Abstract

**Objectives:** There is evidence from both field and file studies that rape allegations raised by complainants who have made a previous allegation of sexual assault are likely to be dismissed as ‘false complainants’. Social psychology has focused on attributions of victim-blame as an explanation for attrition in rape cases whereas, more naturalistic studies suggest that attrition may be more a consequence of a lack of belief in victims. Consequently, the aim of this study was to investigate whether victim-blame or believability are affected by knowledge that a rape complainant had made a previous allegation of sexual assault. Design: This was a multifactorial experimental study employing an independent measures design, using hypothetical vignettes depicting a scenario of a stranger rape. **Method:** The manipulated variables included; previous allegation (none, child sexual assault (CSA) or adult sexual assault), whether the previous allegation was substantiated and the implied mental health status of the complainant (mental illness vs. no mental illness). The participants were 272 undergraduate students, with a mean age of 26.4 years, and the majority described their ethnic group as white UK and were female (80.7%). **Findings:** Overall, the participants were more likely to disbelieve the allegations than to blame the victim. Victim-blame was highest for participants who remained undecided about the veracity of the allegation. Sexual revictimisation demonstrated a differential impact depending on whether the previous assault occurred in childhood or more recent adulthood; participants showed a greater tendency to disbelieve, or to remain ambivalent towards, a complainant who had experienced CSA. Furthermore, the highest levels of victim-blame were attributed by participants who were presented with scenarios depicting previous substantiated child sexual assault. The practical and theoretical implications of the findings are discussed. **Conclusions:** It is likely that those who are the most vulnerable to victimisation and who can suffer the most pernicious effects in the aftermath of sexual violence are those whose requests for assistance will be met with the least empathetic responses, which could ultimately compound their future safety, and their physical and psychological recovery.

**Keywords:** *Sexual revictimisation, Victim-blame, Victim credibility, Rape complainant, Child sexual abuse.*

### 1. Background

There has been a plethora of social psychological research conducted over the last four decades which has examined attitudes towards allegations of sexual assault; in particular, the notion of victim-blame. The findings from these, often experimental studies, have typically been concordant with more naturalistic studies that have examined sexual assault trials or case-file of police records. Overall, the findings suggest that there are a number of extra-legal factors, many of which have some basis in prevalent rape-myths, which systematically bias decision-making against certain victims and which ultimately contribute to the phenomenon of attrition in sexual assault cases (Temkin & Krahé, 2008). Such factors can be grouped into characteristics associated with complainants, defendants, the decision-maker and incident specific details of the alleged assault. Whilst findings in relation to these four groups of factors have not always proved consistent, there are typical ‘sexual assault profiles’ that are deemed most likely to experience negative bias. An example of this in relation to the characteristics of complainants who are most likely to be lost from the criminal justice system suggests that they tend to be; less attractive (Deitz, Littman & Bentley, 1984; Thornton & Ryckman, 1983), sexually active (Cann, Calhoun & Selby, 1979), young women, who have lower social status than the man against whom they are making allegations (Yamawaki, Darby & Queiroz, 2007), dressed in ‘immodest’ clothing (Pollard, 1992; Workman & Orr, 1996), physically or learning disabled or

known to have suffered from a mental health problem (Davis & Wager, 2008) and unlikely to conform to traditional gender-roles ('passive and chaste') (Krahé, 1988). Additionally, there is some limited but consistent evidence to suggest that complainants who are known to have made a previous allegation of sexual abuse are very likely to experience a negative response upon disclosure of their alleged victimisation. This is problematic as two-thirds of victims of sexual assault experience sexual revictimisation. Naturalistic field (e.g. Jordon, 2004) and file (e.g. Kelly et al., 2005) studies indicate that complainants of sexual revictimisation risk being labelled 'false' complainants, indicating their allegations are not believed by the police officers to whom they disclose. Similarly, there are five experimental studies using hypothetical vignettes in which the history of previous sexual victimisation of a current complainant of sexual assault is manipulated (Calhoun et al., 1976; McCaul et al., 1990; Kanekar et al., 1985; Schult & Schneider, 1991; Tyson, 2003), which also suggest that such complainants experience a negative response to their disclosure. In all these previous experimental studies the responses towards the allegations have been assessed in relation to the tendency to engage in attributions of victim-blame, and not the believability of the allegation, as would be suggested by the field and file studies. The only experimental study to-date to examine believability in the context of adult sexual assault and sexual revictimisation is Vine and Wager (2010). This demonstrated that men were less likely to believe a victim of sexual revictimisation, but they were more influenced by the substantiation of the previous allegation through the conviction of the alleged perpetrator.

## **2. Objectives of this study are to:**

- Ascertain whether knowledge of a previous allegation of sexual assault impacts upon the believability and attributions of victim-blame in the context of a new allegation.
- Determine whether there are differential effects on the basis of when the alleged previous assault occurred (childhood or adulthood), the implied mental health of the complainant, or the substantiation of the previous allegation through the conviction of the perpetrator.
- Determine whether overall there are gender differences in the propensity to attribute blame to the victim or believe the victim's allegation.

## **3. Design**

The study consisted of an experimental, between-subjects factorial design, utilising hypothetical case vignettes concerning an allegation of a sexual assault committed by a stranger in which three independent variables were manipulated: 1) A prior history of sexual abuse (no previous history, childhood sexual abuse, previous adult rape); 2) Whether a previous allegation is present – whether this was substantiated with a conviction. 2) Implied mental health problem (absent or present). The dependent variables were the two subscales on the Victim Blame/Believability Scale. Additionally, some limited analysis was computed to examine potential gender differences. This was not possible for all of the analyses due to the small number of male participants.

## **4. Participants**

An opportunistic sample of 272 higher education students, the majority being female (80.7%,  $n = 243$ ) participated in this study. Their ages ranged from 18-69 years with a mean age of 26.4 years. Ninety per cent of the sample were white European.

## **5. Measures**

A modified version of the Victim-Blame/Believability Scale (Davis and Wager, 2008) which is an 11-item, five-point Likert-type scale with two dimensions; victim-blame and victim-believability, was developed for this study. Principle components analysis confirmed the two factors. Both subscales attained satisfactory internal reliability producing Cronbach's alpha's above 0.7. The General Belief in a Just World Scale (Dalbert, Montada & Schmitt, 1987) is a

six-item, six-point Likert-type scale. This scale also demonstrated satisfactory internal and test-retest reliability.

## 6. The vignette

Manipulation of the independent variables resulted in the creation of 11 variants of the vignette. The depicted scenario contained a number of features so that it conformed to an unambiguous ‘real rape’ situation (Estrich, 1986), in that the incident occurred at a relatively early hour of the evening, there was no suggestion of the victim having drunk alcohol, the incident occurred outside and the alleged attacker was a stranger to the victim. Additionally, there was no suggestion of factors in the complainant’s pre-rape behaviour which would have readily enabled the attribution of behavioural blame. Importantly, the vignette was presented as though it was an allegation being made to the police and not as a ‘fly on the wall’ account, which is so often used in experimental studies. The rationale for this is that the ‘fly on the wall’ stimuli lack ecological validity since it is unlikely that we would know that the incident had actually happened; rather we would hear a version of events that we ourselves had not witnessed and we might therefore potentially disbelieve the allegation. An example of the vignette is as follows:

*“Ms A, 21 year old university student, has presented herself at the local police station reporting that she had just been raped by an unknown individual as she walked home through the town centre after an appointment with her psychiatrist. She states that the assailant jumped out of a doorway and dragged her down an alleyway. Unfortunately the area she refers to is just out of view of the CCTV cameras. She claims the assault happened at about 7pm and doesn’t recall there being any other eyewitnesses. The officer’s check of her details on the police computer indicates that she had previously made a sexual assault allegation three years ago. Whilst an arrest was made the case did not proceed to court.”*

## 7. Results

The analysis was conducted in two ways: (1) using the total scores from the blame and believability subscales in order to explore main and interactive effects of all the independent variables, which is consistent with the conventions of psychological experimental research; (2) using composite scores which allow for the computation of the proportions of the respondents who believe or blame the complainant. This is performed to permit the comparison of the findings from ‘field and file’ studies and this experimental study. Details of the main analysis can be found in Wager (under review); an overview of the MANCOVA (controlling for just world beliefs) will be given here, followed by a more detailed discussion of the gender analysis. Since so few males completed the survey it was inappropriate to conduct the analysis for two of the independent variables (implied mental health status of the complainant and where a previous allegation was evident, whether this was substantiated).

- It appears that victims of sexual assault who are known to have alleged experiencing CSA are the least likely to have their current allegations believed.
- The believability of their allegation is not enhanced by the substantiation of their previous allegation – in fact it enhances the risk for victim-blame
- But where a previous allegation has been substantiated and it is suggested that the victim has a mental illness their believability is enhanced
- For victims who were known to have made previous allegations of ASA, they were less likely to be believed than those with no known previous allegations.
- Substantiation of the previous allegation of ASA appears to enhance believability and reduce the level of victim-blame.
- Substantiation of prior ASA combined with an implied mental health problem further enhanced believability
- Overall, two thirds of allegations where there was a previous allegation of CSA and half of those where there was a previous ASA were at risk of being considered false allegations

- A third of responses to scenarios depicting prior ASA and half of those to scenarios depicting prior CSA were associated with victim-blaming.
- Thus overall, respondents were more likely to engage in disbelief of the allegation rather than to blame the victim. Those who believed the victim were as unlikely to blame the victim; whereas those who were ambivalent about the allegation were the most likely to attribute blame.

A MANOVA computed to ascertain potential gender differences in blame, believability and just world beliefs across all scenarios only revealed a statistically significant finding for victim-blame ( $F[1,253] = 7.091$ ,  $p = .005$ ,  $\eta^2 = .027$ ). This demonstrated that men blamed the victim significantly more than women. This contrasts with the Vine and Wager's findings.

Using the composite measures of blame and believability, the proportions of men and women who either believed or blamed the complainant were computed and assessed using Chi-squared analysis. The analyses in relation to victim-blame suggested that the observed differences noted for men and women between the scenarios depicting revictimisation and no previous allegations did not attain levels of statistical significance. However, the analysis comparing the overall levels of blame-attributed to the complainant between men and women did attain a level of significance ( $\chi^2 = 4.720$ ,  $df = 1$ ,  $p = .030$ ). Overall, 53.7% of men and 35.6% of women attributed some blame towards the complainant. With regards to the likelihood of believing the complainant, again the analysis revealed no significant differences for men between the different scenarios. However, women appeared to be less likely to believe a victim of sexual revictimisation in comparison to a complainant reporting a sole victimisation ( $\chi^2 = 10.424$ ,  $df = 2$ ,  $p = .034$ ) and to disbelieve a complainant who had previously alleged child sexual assault more than one who had alleged adult sexual assault ( $\chi^2 = 6.103$ ,  $df = 2$ ,  $p = .047$ ). The results are presented in the table below.

	Proportion of respondents who attributed at least some blame towards the complainant		
	No previous allegations	Previous CSA	Previous ASA
Men	25.0%	61.1%	52.6%
Women	31.4%	42.5%	31.8%
	Proportion of respondents who were willing to believe the complainant		
Men	50.0%	33.3%	50.0%
Women	51.0%	34.1%	47.7%

## 8. Conclusion

The gender difference observed for the tendency towards attributing blame to a victim of sexual assault perpetrated by a stranger appears to manifest through the considerably higher levels of blame attributed by men to victims reporting sexual revictimisation. Indeed, men were three times more likely to blame a complainant who had a previous allegation of CSA than one where no previous allegation was indicated and twice as likely to blame a victim with a previous history of adult sexual assault. Women similarly were most likely to blame victims of sexual revictimisation. However, this appeared to be to a lesser extent than observed for men. It appears that men and women are equally likely to believe a victim of sexual assault and they are similarly affected by knowledge of a previous victimisation. Both men and women are least likely to believe a complainant where it is known that there was a previous allegation of CSA. The results overall represent a sad picture of potential responses to a disclosure of sexual assault, particularly that which is known to be a revictimisation. Importantly, the rate of disbelief in response to sexual victimisation (about two thirds of respondents to scenarios depicting previous CSA) is concordant with Jordan's (2004) finding that 64% of reports of sexual revictimisation were dismissed as false allegations by the New Zealand police. The results highlight that the police tendency towards seeing victims of sexual revictimisation as false complainants cannot be attributed to factors specific to their occupation (e.g. exaggerated suspiciousness), rather this tendency is also evident in the general public. An exploration of the

theoretical explanations for these findings is provided in Wager (under review). It is hypothesised that in the event of sexual revictimisation, recipients of a disclosure may be making an erroneous comparison between CSA and ASA and believing that whilst a child may not have been able to defend themselves against a sexual assault, they should have learned from their previous experience and now fully grown they should have been better able to defend themselves.. Whereas, in the case of revictimisation which involved prior ASA, it might be imagined that the respondents considered that if the complainant was unable to defend herself previously, it is unlikely that she would have been able to defend herself on this occasion. The veracity of these assumptions might be assessed using protocol analysis of participants' deliberations over the complainants' allegations depicted in the vignettes.

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## IMPACTS OF SOCIOECONOMIC, FAMILY, SCHOOL, BEHAVIORAL AND MENTAL DIFFICULTIES ON INVOLVEMENT IN VIOLENCE IN BOYS AND GIRLS

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### Abstract

**Objectives:** Involvement in violence is common and may result from a number of deleterious socioeconomic, family, school, behavioral and mental difficulties, and sustained violence in early adolescence. The roles of these factors remain partially addressed because few of them have been investigated with often unknown chronologies. Preventing these issues is crucial to promote health and school achievement. This study assessed their impacts on involvement in violence among boys and girls. **Design:** Cross-sectional study with lifetime history reconstruction of life events. **Methods:** The sample included 1,559 middle-school adolescents from north-eastern France (778 boys and 781 girls, mean age 13.5, SD 1.3), who completed a self-administered questionnaire including gender, birth date, father's occupation, parents' education, nationality, income, social supports, and lifetime history reconstruction of parents' separation/divorce/death, alcohol/tobacco/cannabis/hard drugs uses, repeating a school-year, sustained physical/verbal violence, sexual abuse, depressive symptoms (Kandel scale), suicide attempts, and involvement in violence. Involvement in violence was measured with an 11-item scale on fights in group or not, verbal violence, racial actions, taking something of others/shop, set fire, using weapon, damaging public/private property, in school, in school neighborhood, at home, and elsewhere (Cronbach's alpha 0.82, score >90<sup>th</sup> percentile). Social support was measured using a 9-item scale concerning relationships with people round about (Cronbach's alpha 0.56, score >90<sup>th</sup> percentile). Data were analyzed using Cox models including all factors to compute adjusted hazard ratios (aHR). **Findings:** Involvement in violence affected 10.3% of adolescents (14.3% in boys, 6.4% in girls,  $p < 0.001$ ). Among boys, involvement in violence was influenced by being inactive (unemployed/retired) offspring (aHR 2.63, 95%CI 1.48-4.69), alcohol use (1.76, 1.11-2.79), tobacco use (2.71, 1.56-4.69), hard drugs use (3.46, 1.73-6.91), suicide attempt (2.05, 1.05-3.97), sustained physical/verbal violence (1.63, 1.02-2.62), and poor social support (2.64, 1.67-4.16 for score 1-2 and 2.80, 1.64-4.78 for score 3+, vs. score 0). Among girls, involvement in violence was influenced by being inactive offspring (2.39, 95%CI 1.09-5.27), tobacco use (3.57, 1.46-8.72), cannabis use (4.45, 1.36-14.55), depressive symptoms (8.88, 3.01-26.20), and poor social support (9.38, 2.80-31.43 for score 1-2 and 14.23, 4.11-49.23 for score 3+, vs. score 0). Boys had a much higher risk than girls (crude hazard ratio 3.57, 95%CI 2.56-5.00) which did not change when adjusting for all factors studied. **Conclusions:** Living difficulties highly and similarly enough impacted on involvement in violence among boys and girls in early adolescence. Our findings call for measures preventing and monitoring these difficulties in this crucial life period.

**Keywords:** Adolescents, Violence, Socioeconomic factors, School/behavioral/mental difficulties, Causal relationships.

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### 1. Introduction

Involvement in violence is common among adolescents (Finkelhor et al., 2005; Swahn et al., 2012). Recent studies have evidenced that it can be generated by maltreatments such as sustained physical/verbal violence and sexual abuse through child maladaptation, stress

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physiology, damage to cognitive development, developmental trajectory failure, depressive and internalizing symptoms, and suicide behaviors (Chau, 2012; Feiring et al., 2007; Finkelhor et al., 2005). Youth development including healthy self-awareness, self-care behavior, and future goal achievement needs stable and nurturing contexts promoting achievement of trust, optimism, and meaning in life. But many adolescents early suffer from mental and behavioral difficulties (substance uses, depressive symptoms, suicide attempts, sustained violence) and school difficulty (Chau, 2012; Swahn et al., 2012). These issues may also favor child maladaptation, stress, altered cognitive development, and involvement in violence. School difficulty may generate school disengagement and psychological disorders (Chau, 2012).

Substance uses and depressive symptoms may play a role because they may affect physical, mental and cognitive functions and working performance (Chau, 2012; Kalmijn et al., 2002; Nelson et al., 1994; Raphael et al., 2005) leading to more living difficulties and drugs uses to cope. Many adolescents experience socioeconomic difficulties which may favor substance use, depressive symptoms and school difficulty (Chau, 2012; Legleye et al., 2010) while those issues of adolescents with socioeconomic difficulties are less likely treated (Chau, 2012). These factors are modifiable and can be prevention targets to limit involvement in violence but their roles remain partially addressed because few of them have been investigated with often unknown chronology (Chau, 2012). This cross-sectional study with lifetime history reconstruction of life events assessed the impacts of socioeconomic, family, school, behavioral and mental difficulties on involvement in violence among boys and girls.

## 2. Design and Methods

The study population comprised all 1,666 students attending all middle schools in an area of the Nancy urban area in north-eastern France (two public and one private, 63 classes). The survey was approved by the *Commission Nationale de l'Informatique et des Libertés*. Respondent written informed consent was obtained. The study protocol included an application to participate to parents/guardians and data collection using an anonymous self-administered questionnaire during a 1h-class period (2010). It included gender, birth date, divorce/separation, death, income, occupation, and education of parents, nationality, grade repetition, lifetime substance uses, depressive symptoms, suicide attempt, violence, and social support. In total, 2 refused and 89 (5%) were absent during data collection (for motive independent of the survey); 1,575 completed the questionnaire, of which 10 were of unknown gender/age, 9 not well completed, leaving 1,559 questionnaires (94%) for analysis. The health-related issues of the sample were close to those of the whole France (Chau, 2012).

Seven father's occupational groups were considered (international classification of occupation, ISCO): professionals / managers (reference category); craftsmen / tradesmen / firm heads; intermediate professionals; service workers/clerks; manual workers; other active people; and inactive people (unemployed/retirees). For insufficient income, subjects were asked whether the family financial situation was: coping with difficulties/getting into debt vs. comfortable/well off/earning just enough (Chau, 2012). Poor social support was measured with a 9-item scale: 'During the last 12-month were you satisfied with support from your:' father, mother, father/mother-in-law, brothers/sisters, grand-parents, other family members, parents adoptive, host family, and friends (unsatisfied/indifferent vs. satisfied). The Cronbach's alpha was satisfactory (0.57), allowing a single score to be calculated as the number of positive responses. It was categorized into: 0, 1-2, and  $\geq 3$  (90<sup>th</sup> percentile).

Lifetime tobacco, alcohol, cannabis, and hard drugs uses were assessed with the questions (Hibell et al., 2004) 'During the life course': 'did you smoke cigarettes?', 'how many times have you had alcohol drinks (beer, cider, champagne, wine, aperitif, ...)?', 'how many occasions have you used any form of cannabis?', and 'how many occasions have you used any form of other illicit drugs (mushrooms, ecstasy, LSD, ...)?' (Any/None). Depressive symptoms were measured with the Kandel scale (Kandel & Davies, 1982). The Cronbach's alpha was satisfactory (0.84) allowing a single score to be calculated. They were defined by a score  $\geq 17$  (90<sup>th</sup> percentile). Grade repetition was assessed with the question 'Do you have repeated school year(s)?' (Never, at primary school, for every middle-school year). Sustained violence was

measured using a 20-item scale (5 questions for 4 places: in school, school neighborhood, at home, and elsewhere): ‘During the last 12 months, have you been victim of ...?’: knocks, stealing, racket, racial actions, and verbal violence (Any/None) (Swahn et al., 2012). The Cronbach's alpha was satisfactory (0.71), allowing a single score to be calculated as the number of positive responses. Sustained violence was defined by a score  $\geq 4$  (90<sup>th</sup> percentile). Sexual abuse was assessed with the question: ‘In the course of your life, have you been victim of a sexual abuse?’ (Any/None) (Swahn et al., 2012).

Involvement in violence was measured with a 11-item scale: ‘During the last 12 months, have you?’: ‘gotten mixed into a fight in school’, ‘taken part in a fight where a group of your friends were against another group’, ‘belonged to a group starting a fight against another group’, ‘been author of verbal violence’, ‘been author of racial actions’, ‘started a fight with another individual’, ‘taken something not belonging to you (in school, in the neighborhood of school, at home, ...’, ‘taken something from a shop without paying for it’, ‘set fire to somebody else's property on purpose’, ‘used any kind of weapon to get something from a person’, or ‘damaged public or private property on purpose’ (Any/None) (Swahn et al., 2012). The Cronbach's alpha was satisfactory (0.82), allowing a single score to be calculated as the number of positive responses. Involvement-in-violence was defined by a score  $\geq 6$  (90<sup>th</sup> percentile).

Were further gathered the ages of alcohol, tobacco, cannabis, and hard drugs initiations. For all life events the age of first occurring (and the last one for depressive symptoms, sexual abuse, sustained violence, and involvement in violence) was asked.

To identify factors associated with involvement in violence Cox models were performed for boys and girls separately to compute crude and then adjusted hazard ratios with forward stepwise procedure retaining only significant factors ( $p < 0.05$ ).

### 3. Findings

Involvement in violence affected 10.3% of adolescents (14.3% in boys, 6.4% in girls,  $p < 0.001$ ). The characteristics of subjects are shown in Tables 1 and 2.

**Table 1:** Factors associated with involvement in violence among boys ( $N=778$ ): crude and adjusted hazard ratios (HR) and 95% confidence intervals (CI)

	N (%)	Crude HR and 95% CI		Adjusted HR and 95% CI <sup>a</sup>	
Parents' divorce/separation	201 (25.8)	1.90**	1.25-2.89	—	
Parent(s)' death	19 (2.4)	2.27	0.72-7.17	—	
Insufficient income	129 (16.6)	2.18***	1.44-3.29	—	
Non-European immigrants	27 (3.5)	2.53*	1.17-5.49	—	
Father's occupation					
Professionals/managers	221 (28.4)	1.00		1.00	
Craftsmen, tradesmen, and firm heads	153 (19.7)	1.07	0.61-1.87	—	
Intermediate professionals	82 (10.5)	1.19	0.62-2.29	—	
Service workers/clerks	84 (10.8)	0.69	0.34-1.42	—	
Manual workers	124 (15.9)	1.12	0.60-2.09	—	
Other active people	60 (7.7)	1.05	0.47-2.28	—	
Inactive people	54 (6.9)	2.16*	1.15-4.08	2.63***	1.48-4.69
Low parents' education (< university)	385 (49.5)	1.18	0.82-1.72	—	
Grade repetition	117 (15.0)	0.72	0.30-1.72	—	
Lifetime substance use					
Alcohol	499 (64.1)	3.16***	2.09-4.79	1.76*	1.11-2.79
Tobacco	231 (29.7)	5.93***	3.73-9.42	2.71***	1.56-4.69
Cannabis	83 (10.7)	5.50***	2.81-10.79	—	
Hard drugs	48 (6.2)	11.13***	6.12-20.23	3.46***	1.73-6.91
Depressive symptoms	59 (7.6)	11.87***	5.14-27.38	—	
Suicide attempt	56 (7.2)	5.50***	3.01-10.06	2.05*	1.05-3.97
Sexual abuse	22 (2.8)	10.07***	4.61-21.99	—	
Sustained physical/verbal violence	454 (58.3)	3.03***	1.94-4.73	1.63*	1.02-2.62
Poor social support					
Score 0	389 (50.0)	1.00		1.00	
1-2	278 (35.7)	3.14***	2.02-4.89	2.64***	1.67-4.16
3+	111 (14.3)	4.39***	2.64-7.29	2.80***	1.64-4.78

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ . N: number of subjects. <sup>a</sup> With forward stepwise procedure retaining only significant factors ( $p < 0.05$ ). The HRs were calculated versus absence of involvement in violence (score 0,  $N=224$ ).

All risk factors had significant crude HRs except for parent(s)' death, and for income and being non-European immigrant among girls. Multivariate Cox model reveals that, in boys, involvement in violence was influenced by being inactive offspring (aHR 2.63), alcohol use



(1.76), tobacco use (2.71), hard drugs use (3.46), suicide attempt (2.05), sustained physical/verbal violence (1.63), and poor social support (2.64 for score 1-2 and 2.80 for score 3+, vs. score 0). Among girls, involvement in violence was influenced by being inactive offspring (2.39), tobacco use (3.57), cannabis use (4.45), depressive symptoms (8.88), and poor social support (9.38 for score 1-2 and 14.23 for score 3+, vs. score 0). Boys had a much higher risk than girls (crude HR 3.57, 95%CI 2.56-5.00) which did not change when adjusting for all factors studied.

**Table 2:** Factors associated with involvement in violence among girls (N=781): crude and adjusted hazard ratios (HR) and 95% confidence intervals (CI)

	N (%)	Crude HR and 95% CI		Adjusted HR and 95% CI*	
Parents' divorce/separation	204 (26.1)	2.41**	1.34-4.35	—	
Parent(s)' death	28 (3.6)	1.69	0.41-7.00	—	
Insufficient income	147 (18.8)	1.76	0.93-3.33	—	
Non-European immigrants	20 (2.6)	1.72	0.54-5.55	—	
Father's occupation					
Professionals/managers	218 (27.9)	1.00		1.00	
Craftsmen, tradesmen, and firm heads	161 (20.6)	2.10	0.92-4.80	—	
Intermediate professionals	74 (9.5)	0.90	0.25-3.27	—	
Service workers/clerks	60 (7.7)	1.11	0.30-4.03	—	
Manual workers	149 (19.1)	1.03	0.39-2.72	—	
Other active people	56 (7.2)	0.43	0.06-3.37	—	
Inactive people	63 (8.1)	5.34***	2.30-12.4	2.39*	1.09-5.27
Low parents' education (< university)	374 (47.9)	1.51	0.86-2.67	—	
Grade repetition	113 (14.5)	2.32*	1.09-4.96	—	
Lifetime substance use					
Alcohol	468 (59.9)	4.16***	2.09-8.28	—	
Tobacco	218 (27.9)	11.07***	5.51-22.26	3.57**	1.46-8.72
Cannabis	47 (6.0)	9.02***	3.15-25.84	4.45*	1.36-14.55
Hard drugs	31 (4.0)	8.66***	2.52-29.74	—	
Depressive symptoms	149 (19.1)	50.62***	23.27-110	8.88***	3.01-26.20
Suicide attempt	98 (12.6)	10.52***	4.91-22.55	—	
Sexual abuse	35 (4.5)	3.73	0.88-15.74	—	
Sustained physical/verbal violence	378 (48.4)	3.02**	1.47-6.17	—	
Poor social support					
Score 0	331 (42.4)	1.00		1.00	
1-2	324 (41.5)	9.87***	2.95-32.99	9.38***	2.80-31.43
3+	126 (16.1)	25.38***	7.64-84.30	14.23***	4.11-49.23

\*p<0.05, \*\*p<0.01, \*\*\*p<0.001. N: number of subjects. \* With forward stepwise procedure retaining only significant factors (p<0.05). The HRs were calculated versus absence of involvement in violence (score 0, N=408).

#### 4. Conclusions

This original study using life events historic reconstruction shows that early adolescence exposes adolescents to persistent mental, behavioral and school difficulties and sustained violence which favor involvement in violence through alterations of physical, mental and cognitive abilities and working performance (Chau, 2012; Kalmijn et al., 2002; Nelson et al., 1994; Raphael et al., 2005). We found similarities between boys and girls despite depressive symptoms, poor social support and grade repetition had higher roles among girls, and family income and being non-European immigrant had higher roles among boys. Sustained violence and sexual abuse played strong roles which were much confounded and thus explained by mental, behavioral and school difficulties. Prevention should be targeted on mental, behavioral and school difficulties and on sustained violence which are modifiable, especially among adolescents with family and socioeconomic difficulties. Our findings point out the pathways from mental, behavioral and school difficulties and sustained violence to involvement in violence which may continue in adulthood. They may be important for policy makers and all people around adolescents.

Limitations and strengths may be mentioned. This study used self-reported data which are widely used to study adolescent living conditions, mental health, and behaviors (Hibell et al., 2004; Legleye et al., 2010; Swahn et al., 2012). The participation rate was high (94%). Various measures have been used elsewhere (Hibell et al., 2004; Swahn et al., 2012). The prevalence of health/behavior outcomes was similar with that of French adolescents. All were made to guarantee students' anonymity. For this purpose birthday, birth place, residential town, school name, and precise class were not gathered.

Living difficulties highly and similarly enough impacted on involvement in violence among boys and girls in early adolescence. Our findings call for measures preventing and monitoring these difficulties in this crucial life period. While a lifetime history reconstruction of life events results interpretation in terms of causal relationships should be made with prudence because of the cross-sectional nature of the study.

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# MULTIPLE VICTIMS: ERRORS IN EYEWITNESS MEMORY CAUSED BY CRIME-TYPES, VICTIM CHARACTERISTICS, AND CORRESPONDING STEREOTYPES

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## Abstract

Errors in eyewitness identification are the single greatest cause of wrongful convictions. To illustrate, there have been 302 post-conviction DNA exonerations in the United States, and eyewitness misidentification was a contributing cause in 72% of those false convictions. Our research explores how crimes-types and victim characteristics can influence both (a) when errors in eyewitness memory are likely to occur, and (b) who is likely to be the victim of eyewitness misidentification. Our initial research revealed that a Black perpetrator of a stereotypically Black crime (e.g., drive-by shooting) was mistakenly remembered as looking more stereotypically Black (e.g., broader nose, fuller lips, and darker complexion) than a Black perpetrator of a crime that is not stereotypically linked to Black individuals (e.g., serial killing). The present research investigates whether victim characteristics can exacerbate these crime-types effects. Past research has shown that if the victim of a crime is White, female, or a child, the perpetrator of that crime is normally treated more severely. Our question, however, is whether these victim characteristics can also impact the above crime-type effects. To isolate the influence of victim characteristics, 43 participants watched a video of a Black male drive-by shooter. Participants watched the same core video that differed only in the alleged victims of the crime; half the participants saw photos of Black male and Black female victims, while the remaining participants saw photos of White male and White female victims. Participants then identified the perpetrator using a software program that we designed to morph the perpetrator's face through 100 frames from low to high perceived Black stereotypicality. As predicted, participants who watched a drive-by shooter whose victims were Black, accurately remembered the perpetrator's level of perceived stereotypicality ( $M = 48.50$ ); whereas, those participants who watched a drive-by shooter whose victims were White, falsely remembered the perpetrator as looking more stereotypically Black ( $M = 67.30$ ) than he is in reality,  $F(1,41) = 8.44$ ,  $p < .01$ , partial eta-squared = .17. In short, we believe there is a discernable pattern to eyewitness misidentifications. It is only after we understand both (a) when errors in eyewitness identification will occur and, (b) who will be mistakenly identified that we can begin to take proactive measures to ensure these biases do not translate into wrongful convictions.

**Keywords:** *Eyewitness memory, False convictions, Stereotypes.*

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## 1. Introduction

This research is based on the work of Osborne and Davies (2012), who found that crime-types significantly impacted the accuracy of eyewitness recall of perceived Black stereotypicality. Perceived stereotypicality is the degree to which an individual is perceived to possess physical features that are believed to be representative of a given racial group. In terms of race, perceived Black stereotypicality is the degree to which a person is viewed to be physically representative of the Black racial group. For example, an individual high on perceived Black stereotypicality may have a darker skin tone, broader nose, and thicker lips than someone low on perceived Black stereotypicality (Blair, Judd, & Chapleau, 2004; Blair, Judd, & Fallman, 2004; Blair, Judd, Sadler, & Jenkins, 2002; Livingston & Brewer, 2002; Maddox & Gray, 2002).

Osborne and Davies (2012) found that participants who were exposed to a stereotypically Black crime (i.e., drive-by shooting) recalled the perpetrator to be higher on perceived Black stereotypicality than the same perpetrator of a stereotypically White crime (i.e.,

serial-killing). This work has laid the foundation for explaining both when eyewitness identification errors are likely to occur and who is likely to be a victim of those errors.

The current research expands on the work of Osborne and Davies (2012) to examine if victim characteristics exacerbate the effects of crime-types on eyewitness recall of a suspect's perceived Black stereotypicality. Research suggests that victim characteristics play a large role in the criminal justice system especially with regards to sentencing (Glaeser & Sacerdote, 2003). In terms of race, research by Glaeser and Sacerdote (2003) has shown that Black individuals convicted of murder receive shorter sentences if the victim is Black than if the victim is White. Not all Black individuals convicted of murdering White individuals are treated the same, however. Eberhardt, Davies, Purdie-Vaughns, and Johnson (2006) found that the more stereotypically Black the defendant was perceived to be, the more likely that person was to be sentenced to death for murdering a White individual. These findings suggest that crimes involving White victims may be viewed as more heinous by some individuals than those crimes involving Black victims.

As mentioned earlier, eyewitness errors account for a large percentage of wrongful convictions (Innocence Project, 2013). Investigating the effects of victim characteristics in conjunction with crime-types on eyewitness accuracy will help to identify how these errors occur, while also paving the way for procedures that help prevent them from occurring in the future.

## 2. Design

This study was a between-participants design in which all participants were exposed to the video of the stereotypically Black crime (i.e., drive-by shooting) prior to being randomly assigned to the Race of Victims condition (i.e., Black victims or White victims). The dependent variable in this study was the participants' memory of the perpetrator's perceived stereotypicality on a scale of 0-100 with a score of "0" representing the lowest level of perceived stereotypicality, and a score of "100" representing the highest level of perceived stereotypicality.

## 3. Objectives

The goal of our research was to examine the possibility that victim characteristics exacerbate the effects of crime-types on eyewitness recall of perceived Black stereotypicality. It is hypothesized that participants who are exposed to a surveillance video of a drive-by shooter (i.e., a stereotypically Black crime) whose purported victims are White would remember the perpetrator as being higher on perceived Black stereotypicality than participants who watched the same surveillance video but of a perpetrator whose purported victims were Black.

## 4. Methods

Undergraduate students were recruited for this online study from the University of British Columbia subject pool. A total of 43 students were recruited in exchange for 0.5 course credit. The sample of undergraduate students consisted of 29 women and 14 men. Thirty-two participants self-identified as White, five as Asian, two as Black, one as Latino/Latina, and three as "Other." Participants ranged in age from 17 to 36 ( $M = 19.44$ ,  $SD = 2.897$ ).

After consenting to participate in this online study, all participants were told that they were about to watch a surveillance video of a perpetrator leaving a building. The surveillance video showed a moderately stereotypical Black male exiting an ambiguous building carrying nothing in his hands (see Osborne & Davies, 2012). All participants in this study were led to believe that the perpetrator leaving the building was suspected of committing a highly stereotypic Black crime (i.e., drive-by shooting). After watching the surveillance video, participants were shown the purported victims of the drive-by shooting. Depending on their randomly assigned condition, those purported victims were either all Black or all White.

After viewing the victim photographs, participants were asked to read an unrelated article on visual processing for 10 minutes. This article, *How Photons Start Vision* by Denis Baylor (1996), served as a cognitive distractor task to conservatively replicate real-world eyewitness identification circumstances (i.e., memory impairment caused by the duration of time between witnessing the event and subsequent recall for the event). Participants were told that this article on the visual system would help them understand how visual information was processed. To avoid instilling feelings of stress or anxiety, at the end of the 10 minutes, participants were informed that it was not necessary to have finished reading the entire article, as most people are not able to finish reading the article in the allotted time.

After reading the article, participants were asked to identify the perpetrator that they saw in the surveillance video at the beginning of the study. Participants were shown a video that morphs through 100 frames of perceived stereotypicality in 10 seconds. Participants were asked to stop the morph at the exact moment when the face matched the perpetrator from the surveillance video. The first frame of the morph represents the lowest level of perceived Black stereotypicality, whereas the 100<sup>th</sup> frame of the morph represents the highest level of perceived Black stereotypicality. In reality, the perpetrator's level of perceived Black stereotypicality was exactly at the midpoint of the morph; that is, the 50<sup>th</sup> frame. The morphing software records the exact frame at which the participant stops the morph. The frame at which the video is stopped serves as our dependent measure (i.e., 0-100). To ensure that participants were familiar with the morphing software before making their judgments, a practice trial was given prior to the actual perpetrator identification task.

Following the identification task, participants were asked a series of questions to ascertain the level of confidence in their identification of the perpetrator's level of perceived stereotypicality. Participants were also asked a series of questions to confirm that they were paying attention during the study and did not experience any difficulties with the program or the study itself. These manipulation checks were used to identify potential sources of error in the data and to confirm that the study was accessible across multiple computer types and various web browsers. Participant demographics were then collected, including age, gender, and ethnicity. Participants were then thanked for their participation and fully debriefed.

## 5. Results

The results of our study supported our hypothesis that those participants who were exposed to the surveillance video of a suspected drive-by shooter whose victims were White recalled the perpetrator as higher on perceived Black stereotypicality than those participants who were led to believe that the drive-by shooter's victims were Black. Specifically, participants who believed the victims were White rated the perpetrator's level of perceived stereotypicality to be 67.30, whereas those who believed the victims were Black rated the perpetrator's level of perceived stereotypicality to be 48.50,  $F(1, 41) = 8.44$ ,  $p < .01$ , partial eta-squared = .17.

## 6. Discussion

The findings of this study are the first of its kind to highlight the affect of victim characteristics, in conjunction with crime-types, on the accuracy of eyewitness recall of perceived stereotypicality. This work lays the foundation for future work examining the influence of other victim characteristics such as age on the accuracy of eyewitness identifications. Work by Kleinfeld (2012) has shown that our criminal justice system perpetuates the belief that it is more heinous to commit a crime against a child than against an adult. As a consequence, our future research will examine the interaction between victim's age and crime-type on the accuracy of eyewitness recall of perceived stereotypicality. We are also interested in exploring whether witness characteristics can also interact with crime-types to influence the accuracy of eyewitness recall of perceived stereotypicality. For example, it has been well established that people are particularly inept at cross-race identifications, which is an effect known as the cross-race identification bias (Malpass & Kravitz, 1969). This leads us to

question whether these errors in memory for perceived stereotypicality will only hold for non-Blacks witnessing Black suspects. Our research up to this point has not involved enough Black subjects to determine whether this phenomenon would also be shown among Black participants recalling the perceived stereotypicality of Black perpetrators. Fully understanding the factors that influence eyewitness memory and identification accuracy is a critical step in enabling us to create and implement procedures designed to reduce the tragic errors that can occur during the identification process.

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## CONTRIBUTION OF SOCIAL PSYCHOLOGY TO UNDERSTAND RELATIONS BETWEEN OFFENDERS AND PROFESSIONALS

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### Abstract

The purpose of this study is to show, through discourse analysis, the differences between professionals of the prison system, concerning their relations with offenders (PPSMJ). This analysis should help to understand how these professionals are positioned and what their relationships with offenders are. In order to allow every protagonist to express their point of view in an ecological approach, the chosen method of data collection was the recorded semi-directive interview. A first open question was asked: "What comes spontaneously to mind about Mr X?" This was followed by a series of questions based mainly on the relations between the interviewed and Mr X or members of his entourage. The last two questions were about the relationship between various departments in order to gather partnerships representation (Moscovici, 1964). A list of fifteen PPSMJ, all male and habitual offenders, was established by the two institutions most involved (SPIP and SDAT). Persons in charge of these PPSMJ were consulted for the study: the sample consists of 6 women and 5 men working for the SPIP, 4 men working for the SDAT, 1 female and 3 male psychiatrists, and 9 policemen. As a professional might be in charge of several offenders among the list, 63 interviews were conducted, 25 with CPIP, 14 with caseworkers of the SDAT, 13 with police officers and 11 with psychiatrists. Data were analysed using contrast analysis. The analysis on the prolixity highlights a main effect between the four types of interviewees ( $y = 16.3$ ,  $p = .00$ ). SPIP and SDAT professionals use a number of words greater than police officers or doctors. The analysis on the use of the syntactic status shows a significant difference in the use of pronouns and names ( $y = 10.87$ ,  $p = .01$ ), indicating that SPIP and SDAT professionals use more names than pronouns unlike police officers and doctors. In the use of verbs, only the results for factive verbs are significant ( $y = 10.84$ ,  $p = .01$ ). SPIP professionals use less verbs referring to an action. Those analyses show that SPIP and SDAT workers maintain a relationship with offenders different than police and doctors. They invest more in the relationship and tend to personalize it. As shown by Snyder and Stukas (1999), it is rare to interact with other people without having expectations on how they will behave, every person needs to understand and evaluate others, because to them, it is important to be able to predict and explain their behaviour. Thus, this study confirms that the roles of different professionals will have an influence on how to represent offenders. It gives us a general idea on offenders' representation, in order to understand the studied field of intervention and the influence of stereotypes.

**Keywords:** *Institution, Offenders, Offenders' supervising, Discourse analysis.*

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### 1. Introduction

Current research shows that in France, 52% of people released from prison commit another offense within five years of release (Kensey, Tournier, & Almeras, 2004). Though, many professionals are involved in the care of these offenders, whether they are serving non-custodial sentences or released from prison on licence. Those professionals all aim for a quite similar target: the offenders supervising, but they do it with different approaches. As shown by Snyder and Stukas (1999), every person needs to understand and evaluate others, because it is important, to them, to be able to predict and explain their behaviour. Therefore, it is rare to interact with other people without having expectations on how they will behave, and thus in return without influencing the aforementioned person's thoughts and behaviours.

Expectations toward offenders (PPSMJ, as called in French) are not the same if one takes into consideration the different institutions supervising them. The encounter, as it happens but also as reported, becomes then observable. Its analysis provides the opportunity to elaborate means of understanding that could serve as support for possible solutions or even recommendations.

In order to understand the relationship between the different persons in charge of the offender, we interviewed most of the professionals involved in this process: probation officers and counsellors of the probation department of prison (CPIP, as called in French), caseworkers of the Dijons Society of Assistance through Work (SDAT, as called in French), police officers and psychiatrists.

In the French judicial system, CPIP promote access to rights and integration devices to the PPSMJ, they work for the SPIP (the integration and probation department of prison). SDAT caseworkers optimize social care to people or families who are homeless or facing major social problems. Police officers are guarantors of liberties and of the defence of the Republic's institutions. They ensure the upholding of peace and public order, as well as the protection of people and property. Psychiatrists prevent and diagnose pathologies. They provide care according to medical or surgical specialty and organize medical support for emergencies. They implement collection and processing of medical information.

Depending on their roles, the different agents in charge of the offenders will not consider them the same way. If, as Tajfel (1974) did, we consider that the subject is carrying multiple identities, we can assumed that CPIP and caseworkers of the SDAT will mostly have a maternal relationship with offenders, due to their job, and thus will perceive offenders in their personal identity. Police officers and psychiatrists, who provide care and treatment to delinquent persons, will therefore perceive offenders in their social identity.

## 2. Method

### 2.1. Analysis Method

A discursive analysis was conducted by taking into account three markers:

- The prolixity measures the number of words per interview. It reflects, as shown for the first time by Giles, Baker and Fielding, 1975, the investment in the speech. We hypothesize that the staff of the SPIP and SDAT will be more verbose than psychiatrists and physicians.

- The core referent: offenders. This means the linguistic usages corresponding to this referent in their entirety. We will particularly study it through the pronoun/name distribution and the "actancielle" position (is the offender seen as a subject or a complement?). The first indicator refers to the personalization of the offender (Van Dijk, 1984), while the second refers to the way he is considered (Castel & Lacassagne, 1995). We hypothesize that SPIP and SDAT professionals use a complement "actanciel" pattern unlike police officers and psychiatrists who use a subject "actanciel" pattern.

- The verbal categories are reduced to three classes: stative, factive and declarative. They are defined as follows (Ghiglione, 1991): "an active verb refers to the linguistic transcription of an action, a stative verb refers to the linguistic transcription of a state or a possession (to be or to have are not used as auxiliary verbs in this case), and a declarative verb refers to the linguistic transcription of a statement on a state, a being, an object, a feeling..." (p. 40). We hypothesize that staff of the SPIP and SDAT will use stative verbs to recall facts about the offender, while police officers will use factive verbs and psychiatrists the auxiliary have.

### 2.2. Sample

A list of fifteen PPSMJ, all male and habitual offenders, was established by the SPIP and SDAT. Persons in charge of these PPSMJ were consulted for the study: the sample consists of 6 women and 5 men working for the SPIP, 4 men working for the SDAT, 1 female and 3 male psychiatrists, and 9 policemen. As a professional might be in charge of several offenders among the list, 63 interviews were conducted, 25 with CPIP, 14 with caseworkers of the SDAT, 13 with police officers and 11 with psychiatrists.

### 2.3. Procedure

The chosen method consisted in bringing out the relationships between caseworkers and the studied cases. In order to allow every protagonist to express their point of view in an ecological approach, the chosen method of data collection was the recorded semi-directive interview. Each participant was engaged in a conversation of about an hour. A first open



question was asked: "What comes spontaneously to mind about Mr X?" This was followed by a series of questions based mainly on the relations between the interviewed and Mr X or members of his entourage. The last two questions were about the relationship between various departments in order to gather partnerships representation (Moscovici, 1964).

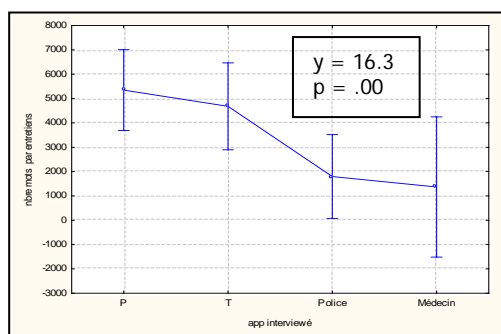
## 2.4. Statistics

Given that we collected corpuses with different sizes, we had to verify that the produced indicators varied according to a normal law to be able to do a parametric procedure. After using the Shapiro-Wilk test, we did a nonparametric ANOVA of Kruskal Wallis based on ranks when having several groups to compare and the U test of Mann-Whitney when having only two independent groups.

## 3. Results and discussion

The hypothesis on prolixity allows us to address the difference between the sizes of the interviews. Thus we compared the number of words in order to determine whether the speech was more expeditious or not.

The analysis on the prolixity highlights a main effect between the four types of interviewees ( $y = 16.3$ ,  $p = .00$ ). SPIP and SDAT professionals use a number of words greater than police officers or doctors. These effects are confirmed by the analysis of contrast that highlights a main effect in the comparison between SPIP and SDAT workers versus police officers and doctors ( $Z = 4.04$ ,  $p = 0.00$ ).

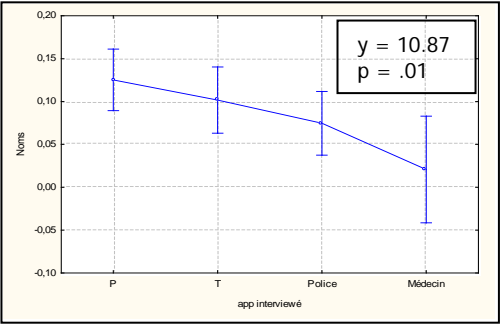


Contrast	Z	p
(SPIP, SDAT) vs (Doctors, Police officers)	4,0400	0,0000
SPIP vs SDAT	0,250	0,800
Doc vs Pol	0,555	0,578

According to Jean Marie Renouard (1993, p. 420), "the role of police is seen especially in its repressive dimension while preventive or protective dimensions benefit from a rather vague visibility (...)" which could explain the shortness of the relationship between police and detainees, which is reproduced in the discourse. The doctor, for his part, is bound by professional secrecy which limits him in his expressions. Professional secrecy remains highly respected, and especially for doctors. It is necessary in the interest of the patient and it could explain physicians' low verbosity (Hochmann, 1964).

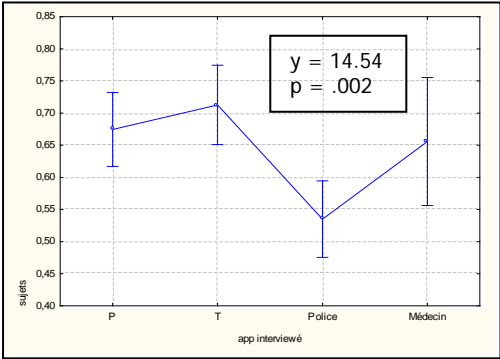
On the contrary, social support and integration services as the SPIP and SDAT have a stronger relationship with the offender. They have to establish a bond of trust and dialogue. They indeed must guide the offenders by mobilizing most of available resources in order to allow them to achieve progress in terms of autonomy and responsibility. (Chauvenet & Orlic, 2002).

The analysis on the use of names / pronouns reveals a main effect between the four types of interviewees ( $y = 10.87$ ,  $p = .01$ ). Actually, there is a significant difference in the use of pronouns and names ( $y = 10.87$ ,  $p = .01$ ): SPIP and SDAT professionals use more names than pronouns unlike police officers and doctors (results confirmed by contrast analysis). Closer to the offenders, they are more likely to refer to them by their names.



Contrast analysis Propositions where the core referent is a pronoun	Z	P
SPIP SDAT vs Police Doctors	2.92	0,00

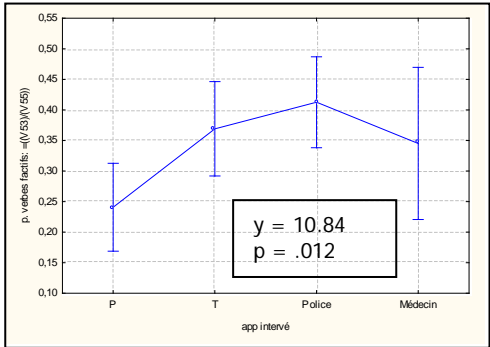
In the discourse analysis, on the rate of “actancité” (distribution of action in the speech), we expected a significant effect between police officers and doctors versus SDAT and SPIP professionals, the first ones perceiving more the offenders’ action than members of the second group.



Contrast analysis Propositions where the core referent is a subject	Z	P
Police officer vs SDAT	-3.34	0,00
Police officer vs doctors	2.03	0,04
Police vs SPIP, SDAT and doctors	3.67	0.00

Results go against our hypotheses: the offender is seen by the repressive side as being subjected to the action (complement of...). Indeed, in the police officers’ speech, we note a significant number of actions such as interpellation. Offenders then are subjected to the action when police officers are dominating. Doctors meanwhile, see offenders as "victims" of their pathologies and as complement to the action since they are subjected to compulsory treatments. Departments of SDAT and SPIP put the offender much more as a subject, either as an actor of his actions or as an actor of his words.

The third hypothesis compares the kind of verbs used according to institutions.



Contrast analysis Factive verbs	Z	P
SPIP vs Police	-3.18	0,001
Police vs SDAT	-2.25	0,02

Concerning the use of verbs, only the results for factive verbs are significant (y = 10.84, p = .01). The SPIP, unlike the three other institutions, uses significantly fewer verbs that refer to an action (factive verbs). This result suggests that probation officers convey more facts referring to a state or to feelings, when they speak about offenders.

#### 4. Conclusions

In summary, it seems that probation officers (of the SPIP) and caseworkers (of the SDAT) are very involved with offenders, whom they consider in their individuality. SDAT professionals see them as having an action potential. SPIP professionals see offenders as having structural qualities. Regarding police officers and psychiatrists, it seems that these two institutions consider offenders as dominated social agents.

However, are these relations justified? Shouldn't personal identity be more psychiatrists' field than officers of the law and caseworkers? To the latter, an offender remains a person, who at a given time endorsed a reprehensible social role. While it is important to help offenders to get out of this role, doing so by investing primarily a respectable social identity should be considered. As for police officers, if this is truly social identity that is taken into account, the "actantial" pattern seems to refer more to repression than prevention which is essential to stop recidivism.

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## WHY IS PHYSICAL VIOLENCE TOLERATED WHEN THE PERPETRATOR IS THE VICTIM'S SIBLING?

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### **Abstract**

*Introduction:* Despite increased empirical interest in the aetiology and prevalence of inter-sibling violence (ISV), knowledge on the psychosocial factors underlying the acceptability of this form of familial violence remains limited. This is partly due to the scant attention given to sibling violence in the aggression literature, and a prevailing minimization of the physical abuse of siblings at a societal level. To this effect, parallels can be drawn between current perceptions of sibling violence, and the stoic attitudes held towards domestic abuse prior to the 1970s; this reinforces the idea of certain types of violence being marginalized and minimized, leading to widespread normalization. *Aims:* This paper reports on a UK study that explored the extent to which perceptions of sibling violence differ from those of other types of interpersonal violence. The study also explored if these perceptions were related to participant gender and personal experience of victimization. *Methodology:* Participants comprised 605 (197 males; 408 females) university students, who read one of four hypothetical physical assault scenarios which varied according to perpetrator-victim relationship type (i.e., sibling, dating-partner, peer, or stranger) before completing an attribution scale. Respondents also reported on their own experiences of interpersonal violence during their childhood. *Results:* Exploratory factor analysis reduced 23 attribution items to three reliable factors reflecting perceptions of (1) assault severity, (2) victim culpability, and (3) victim resistance. A 4x2 MANCOVA revealed gender differences in the perceived severity of assaults, and that sibling assault was deemed less severe than an identical assault committed by a dating-partner or a stranger. Also, respondents who experienced childhood ISV victimization perceived the hypothetical ISV assault as being less severe and victim more culpable, than respondents with no ISV victimization. *Discussion:* Results are discussed in the context of ISV normalization and applications of these findings are also outlined in terms of theory and practice.

**Keywords:** *Siblings, Violence, Victims, Normalization, Gender.*

## TIME OF PRESENTATION IN GESTURAL LEARNING: EMERGENCE OF A VERBAL OVERSHADOWING EFFECT?

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### Abstract

**Background:** According to Baddeley's model (Baddeley, 2000), gestures are treated depending on their "iconicity". Iconic gestures would be treated by the phonological loop and non-iconic gestures by the visuo-spatial sketchpad. In 1988, Smyth, Pearson and Pendleton assessed that in working memory, meaningless movements were neither treated by the phonological loop nor the visuo-spatial sketchpad. They partly succeeded in this demonstration though the recalls of gestures were decreased by the articulatory suppression (counting repeatedly from one to five) which characteristically blocks the phonological loop. They hypothesized that learning meaningless movements was highly demanding in resources so both articulatory and gestural suppression affected the performances. We suggest that the presentation of movements was long enough to describe gestures with words. In the same manner, the "verbal overshadowing effect" (Schooler & Engstler-Schooler, 1990) is known as the recoding into words of non-verbal material such as faces. Articulatory suppression has been proven to affect negatively these descriptions. **Objectives:** The purpose of our research was to assess whether longer displays could induce greater verbalization and be detrimental to the learning of non-significant movements, such as motor procedures. **Participants:** 50 volunteers (21 male, 29 female) aged from 18 to 31 ( $M = 22.5$ ,  $SD = 3.69$ ) and recruited in Tours, France, participated in this experiment. **Methods:** Each individual had to watch sequences of "non-meaningful" movements and recall them immediately after presentation (protocol from Wilson and Fox, 2007). Participants were divided into two groups according to the lengths of display per movement (1s or 2s). Three conditions were conducted (control condition, articulatory suppression or gestural suppression) for a total of  $3 \times 27$  series of 3 non-iconic movements. **Results:** Anova on repeated measures revealed that whatever the time of presentation, the gestural suppression interfered with the performances compared to the control condition. Significantly, the time of presentation only interacted with the articulatory suppression. In comparison with the control condition, the articulatory suppression had no impact on performance for a presentation of 1s, but significantly decreased performances with longer displays. **Discussion:** We discuss these results as an increased automatic verbalization when time does not constrain it. These results can be interpreted as a verbal overshadowing in working memory, never demonstrated for gestures. **Conclusion:** Practically, it seems that for a first presentation of procedures (non-iconic gestures) presenting slower movements would not help the learners. Counter-intuitively, this does not increase recalls in working memory and makes retentions more susceptible to verbal interferences.

**Keywords:** Working memory, Verbal overshadowing, Articulatory suppression, Gestural learning.

### 1. Introduction

According to Baddeley's model (Baddeley, Allen, & Hitch, 2011; Baddeley, 2000) working memory (WM) is divided into multiple components. The "phonological loop" (PL) controls the retention of speech (written, signed, spoken) and music, while the "visuo-spatial sketch-pad" (VSSP) controls the retention and manipulation of visual objects (color, shape), spatial information, and haptic representation (kinaesthetic, tactile). By contrast, the "episodic buffer" is a passive and amodal store, which can bind elements of the two other components. These three components are linked to long-term memory and are governed by the fourth component, the "central executive". This controls attention and is involved to manipulate information. Thus, gestures could be treated by the VSSP or the PL depending on their meanings or iconicity.

In 1988, Smyth, Pearson and Pendleton conducted five experiments on meaningless movements in WM. Movements were executed for one and a half seconds under different

conditions and performances were compared with word span or recall of spatial location under the same conditions. First of all, they established that spatial interference only affected spatial recall but had no effect on the immediate recall of the movements. This supports the idea of separate retention mechanisms for gestures and the VSSP. Secondly, the recall of movements and words was significantly reduced while performing a concurrent articulation task during presentation (counting “one to five” repeatedly). However, movements that had been experienced previously were not affected by articulatory suppression. The authors suggested that encoding new movements was difficult and highly demanding on resources and could be hindered by any secondary task. Thirdly, the authors demonstrated that repetitive meaningless gestures performed during the retention phase significantly affected movement span but not word span, nor visuo-spatial recall. Taken together, these results suggest a third storage system used for meaningless gestural or body movements.

In 2007, Wilson and Fox further explored the mechanisms linked to the WM for meaningless gestures. They demonstrated that gestures could be processed in WM by a structure similar to the PL. They investigated the effects of similarity (similar movements yield worse performance) (Baddeley, 1966a, 1966b; Conrad & Hull, 1964), length (long movements yield worse performance) (Baddeley, Thomson, and Buchanan, 1975), and gestural suppression (repeating movements affects movement span (Baddeley, Lewis, & Vallar, 1984).

According to these experiments, it seems that meaningless gestures are not processed in WM by the VSSP, nor by the PL, but by another component with mechanisms similar to (those of) the PL. Moreover, Smyth et al. (1988) failed to demonstrate that articulatory suppression did not interfere with gestural learning in their first experiment in which movements were displayed for one and a half seconds. Our interpretation is that displaying movements for one and a half seconds allowed entire movements to be subvocalized, even though they were meaningless movements.

Intrusive verbalization has been investigated notably with regard to the identification of faces. Schooler and Engstler-Schooler (1990) demonstrated that, counter-intuitively, describing a face can negatively affect recognition performance. The participants who had described a robber’s face performed significantly worse to identify the culprit than a control group, who had not given a description. The authors named this phenomenon “Verbal Overshadowing” (VO), whereby verbalization impairs the recall of visual material without overwriting it. The term “overshadow” was used because the visual traces are ignored, giving priority to “the access of the verbally biased code” (p. 63). Since 1990, the VO phenomenon has been replicated and generalized as the effect of verbalization on a non-verbal task (e.g. color, shapes, spatial environment, taste, for a review see Lloyd-Jones, Brandimonte, and Bäuml, 2008). Apart from one experiment concerning golf movements (Flegal & Anderson, 2008), VO has only been investigated as an effect on procedural memory and not in the motor domain with gestures in WM.

## 2. Objectives

The purpose of our research was to assess whether longer displays could induce greater verbalization and be detrimental to the learning of non-significant movements. We added a second variable by manipulating two types of interference, one verbal and one gestural. There were thus three experimental conditions: control, gestural interference (gestural suppression) and verbal interference (articulatory suppression).

We expected an interaction between duration and experimental conditions on recall. With 1s per movement, we expected to observe lower performance only for gestural interference. Verbal interference would not have a significant impact due to the lack of verbalization. 2s per movement was expected to permit greater verbalization. Articulatory suppression would block verbal rehearsal and affect phonological traces, resulting in lower performance.

### 3. Participants

The sample consisted of 50 volunteers (21 male and 29 female), recruited in Tours, France. None of them were familiar with sign language. They were aged 18 to 31 years old ( $M = 22.5$ ,  $SD = 3.69$ ). They were divided into two experimental groups according to the display time of each movement: 1s ( $n = 25$ : 10 men, 15 women) and 2s ( $n = 25$ : 11 men, 14 women).

### 4. Methods

In each condition, participants were shown 27 video sequences of three gestures. Gestures were chosen and performed exactly as in Wilson and Fox's (2007) protocol. The stimuli were designed to reduce the tendency to label movements, and although individual parts could be verbalized, the entire sequence was supposed to be impossible to put into words. Each gesture lasted 1s or 2s depending on the group. Each gesture was made up of three components, each with three possible variations: hand shape (pointing index finger, fist, or five fingers spread), location (forehead, chin/mouth, or chest), and movement (away from the body, circular, or across the body). There were thus nine components with 27 possible permutations. In total, there were therefore 81 gestures to be learnt under each condition. Each series of gestures (3s or 6s) occurred only once in each condition to ensure that it could not be memorized with a word or representation. Moreover, each gesture was used only three times, once at the beginning, once in the middle and once at the end of a sequence. All nine variations of the components were used in each sequence. Three lists of 27 sequences were created to present a new list in each of the three conditions comprised in a session. The lists of gestures used in the videos were identical for the two groups, the only difference being the duration of presentation.

Each participant had to perform the task under the three conditions (control, articulatory suppression, gestural suppression) to complete the session. Between each condition, participants were given new instructions. During the gestural suppression condition, subjects had to carry out a simple repetitive gesture while watching the sequence. It consisted in touching each thumb with the middle finger of the opposite hand, keeping these four fingers stretched, and then reversing the movement. At the same time, they had to make a small up-and-down movement of their arms. The articulatory suppression condition involved the repetition of the nonsense syllable "Bla". The order of the three experimental conditions (control, articulatory and gestural suppression) was balanced between participants. The initial condition for each participant was assigned randomly.

Each correct component of a gesture received one point. Each gesture could therefore score a maximum of three points and each sequence a maximum of nine points, with a total score ranging from 0 to 243 points for each condition.

### 5. Results

None of the participants reported that they could sub-vocalize entire sequences, but only some components or gestures, or one or two of the three movements. A 2 x 3 (duration of presentation x experimental condition) repeated measures analysis of variance (ANOVA) was carried out. All post-hoc analyses were conducted using Scheffé's method.

Results did not reveal a significant effect of duration  $F(1, 96) = 1.22$ ,  $MSE = 162.11$ ,  $ns$ , but an effect of the three conditions,  $F(2, 96) = 4.96$ ,  $MSE = 27.99$ ,  $p < .001$ . Finally, a significant interaction between duration and experimental conditions was observed,  $F(2, 96) = 4.96$ ,  $MSE = 27.99$ ,  $p < .01$ . For 1s per movement, the analyses revealed that scores of the gestural suppression condition ( $M = 76.13\%$ ,  $SE = 1.98$ ) were significantly lower than each one of the two other conditions ( $p < .001$ ). The control condition ( $M = 88.41\%$ ,  $SE = 1.17$ ) and the articulatory suppression condition ( $M = 86.01\%$ ,  $SE = 1.49$ ) were not significantly different one from the other. For 2s per movement, the analyses revealed that score of the control condition ( $M = 90.39\%$ ,  $SE = 1.32$ ) were significantly higher than for the articulatory suppression condition ( $M = 85.15\%$ ,  $SE = 2.18$ ,  $p < .05$ ) and the gestural suppression condition

( $M = 81.96\%$ ,  $SE = 1.84$ ,  $p < .001$ ). Scores of the two interferences were not significantly different ( $p = ns$ ).

## 6. Discussion

Our hypothesis of interaction was confirmed with an interaction between presentation length and the three experimental conditions. Articulatory suppression was the only condition yielding different performance according to length of display. There was no significant difference in recall between the articulatory suppression and control conditions with a display of one second, but fewer components were recalled under the verbal interference condition with a longer presentation time.

In line with the findings of Wilson and Fox (2007) and Smyth et al. (1988), there was a significant impact of gestural suppression on gestural retention. This supports the gestural loop hypothesis (Smyth et al., 1988), also called the “gestural motoric domain” by Wilson and Fox (2007). This component would comprise a rehearsal mechanism, as in Baddeley’s PL (Baddeley et al., 2011). However, as in Smyth’s first experiment (Smyth et al., 1988), we obtained a detrimental effect of articulatory suppression on gestural retention. The movements used in Smyth et al.’s protocol were also designed to be non-meaningful and were presented for one and a half seconds. The authors attributed these results to the task being very demanding on resources, so that any articulation task (phonological or gestural) would interfere with it. This hypothesis does not fit with our data. If learning non-significant movements is too demanding on resources, this would be equally true for a display of one second per movement. However, while performance was indeed altered under the 2s per movement condition, our data did not show significant changes in terms of performance under the shorter time of presentation.

It appears that articulatory suppression does not affect the recall of gestural movements displayed for one second. On the one hand, this suggests that articulatory suppression only interferes with the rehearsal mechanism of the PL and not with any other component processing meaningless gestures. On the other hand, as it does interfere with long display, we suggest that verbalization occurs when not constrained by the length of presentation. A display of two seconds, or one and a half second as in Smyth et al.’s experiment could allow these non-iconic movements to be recoded automatically into descriptive words and stored in the PL. The rehearsal mechanism in the PL is essential to avoid the decay of stored elements (Baddeley, 2000), but it can be blocked by articulatory suppression. Rehearsal of the descriptive words was hindered, and the recall performance reflected the residual gestural traces that were not recoded, explaining the lower performance. For a presentation time of two seconds per movement there was no difference in performance under the two interference conditions. As gestural traces remained, gestural suppression always blocked their rehearsal.

The VO effect could explain our results as the recoding into words of non-iconic gestures. As it was the case for faces, this verbal description was inappropriate (Schooler & Engstler-Schooler, 1990). The use of the PL makes retention more susceptible to verbal interference.

Although this VO effect fits with our results, it cannot be totally validated in this case. In our experiment, we did not ask the participants to describe the movements, as in experiments assessing this effect. VO is the impact of description on visual traces, and in our experiment we did not directly control verbalization but blocked its rehearsal mechanism by articulatory suppression. This would be an interesting point to investigate in future research.

## 7. Conclusion

In conclusion, contrary to the hypothesis of Smyth et al. (1988), our results suggest that meaningless movements are not too demanding on resources but are recoded into words when time is sufficient. They would then be processed simultaneously by a gestural loop and the PL. Long display did not lead to better recall, so this combination was not beneficial for the retention of our movements; in fact, longer presentation can be seen to be detrimental due to the greater impact of articulatory suppression.



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## THE EFFECT OF IMPROVING PROBLEM SOLVING SKILL PROGRAM ON 9<sup>TH</sup> GRADE STUDENT'S PROBLEM SOLVING SKILL

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### Abstract

In this study the effectiveness of a guidance program prepared by researchers to improve the problem solving skill, which is an important part of development in many areas, from academic life to daily life, is investigated. The research is a model of pre-test and post-test experiment with control group. The sample of this study is 20 students selected from ninth grade students of high school. Problem Solving Inventory which was adapted to Turkish by Sahin, Sahin and Heppner (1993) was used in this study. To analyze the data, Non-Parametric Mann Whitney-U and Non-Parametric Wilcoxon Signed Rank Test were used. According to the result of this study, it is found that significant difference in problem solving skills of students who attended the training program by the side of students not attending the program. This study shows that problem solving skill can be developed by training therefore counselors can implement such programs to develop student's problem solving skills.

**Keywords:** *Problem, Problem solving, Training of problem solving.*

## THE IMPACT OF THE COGNITIVE ALGEBRA DURING THE DEVELOPMENT OF BAYESIAN REASONING

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### Abstract

*Background:* Emit bayesian inferencies, in other words revise a judgment about the appearance of an event, and change from prior probability to posterior probability, is a daily activity which, in theory, requires bayes' theory. However, in practice, human is sensible to different bias and he doesn't use systematically wisely all information at his disposal. Zhu and Gigerenzer (2006) showed that when data are presented in natural frequencies, bayesian performances increase. The reason is that base rate information is contained in natural frequencies (Hoffrage, Gigerenzer, Krauss, & Martignon, 2002). According to Payton and Vallée-Tourangeau (2007), representation effects are important in causal induction tasks. *Objectives:* The aim of our research was to study the impact of the three probabilities which are necessary to produce a bayesian reasoning. More precisely, we tried to investigate the manner for secondary school people to integrate the covariation of the three probabilities (prior, posterior and base rate) to produce an inference, at the lightening of the algebraic structure (using Anderson's method, Integration Information Theory). *Design:* The participants were 120 French secondary-school children divided into six groups of 20 children from sixth to eleventh grade. We used bayesian problems, in two formats: conditional probabilities and natural frequencies. For each problem, quantitative data were given in two levels (few versus many). *Results:* The effects of the three data were analyzed by ANOVA. Results suggest a change during development in the treatment of the information, but no effect of the format of the question. According level grade, people combine differently these three data. During the first middle of the secondary school, people present an additive treatment of information. During the second middle, people used a multiplicative rule to treat information. *Discussion:* According to Gigerenzer, Hoffrage, and Ebert (1998), all people neglect the false positive, even if they combine prior and posterior probabilities, but not the base rate. According to Siegler (1987), the development is characterized by many strategies. Zhu and Gigerenzer (2006) described these strategies during the development, but our results suggest that these strategies were the result of different manner to integrate information. *Conclusion:* The quantitative performances at bayesian reasoning depend of the interpretation of the data, and its integration in a treatment of the information. So, we discuss how teach bayesian reasoning according the cognitive algebra.

**Keywords:** Conditional probabilities, Natural frequencies, Algebra.

### 1. Introduction

The literature is rich in descriptions of the development of deductive and inductive reasoning, but there has been very little research into the emergence of probabilistic reasoning, particularly Bayesian reasoning. However, estimating the probability of an event or situation occurring is something we do every day, constantly revising our judgement as we gain new knowledge. The reference model for this probabilistic revision is Bayesian inference (Bayes, 1763), which is based on Bayes's rule (Figure 1). With this formula it is possible to move from an *a priori* probability to a revised probability called *a posteriori*.

**Figure 1:** Bayes' rule

$$P(A|B) = \frac{P(B|A)P(A)}{P(B|A)P(A) + P(B|A^c)P(A^c)}$$

A large number of studies have shown that experts using probabilities daily do not do so appropriately (Budescu & Wallsten, 1995; Gigerenzer, Hoffrage & Kleinbölting, 1991). For example, Gigerenzer, Hoffrage & Ebert (1998) showed that doctors meeting high-risk patients, such as those with AIDS, do not assess the risk of infection correctly and make errors in the use of probabilities.

According to Tversky & Kahneman (1974), human rationality is limited, and people use heuristics, with biased reasoning. Gigerenzer (1996) proposed a new and more optimistic approach to human rationality. This author suggested that people are rational because they are adapted to their environment, in which information is presented in natural frequencies and not in conditional probabilities. Gigerenzer & Hoffrage (1995) claimed that Bayesian reasoning is easier when problems are presented in frequencies. When problems were presented in natural frequencies, children can solve bayesian problems argued Zhu and Gigerenzer (2006). In our previous researches, we found similar results (Sorel, Pennequin & Fontaine, 2010a, 2010b).

## 2. Objectives

According to Anderson (1979, 1981, 1991, 1996) a judgment is a decision process which is rooted in a combination of different values. The covariation influence the participants' judgment (Payton and Vallee-Tourangeau, 2006; Vallee-Tourangeau, Payton, Murphy, 2008). The aim of our research was to study the effect of the covariation of the three important data in a bayesian problem, both in natural frequencies and conditional probabilities) on secondary schoolchildrens' judgment. Our second goal was to establish a cognitive algebra to determine how participants take into account data given.

## 3. Design

### 3.1. Participants

The participants were 120 French secondary-school children divided into six groups of 20 children from sixth to eleventh grade. They were recruited, with parental consent, from local schools around Tours in France. They were all distributed in three groups. Thus, the school children from sixth and seventh grades were on the first group (G1), the school children from eighth and ninth grades were in the second group (G2), and those from tenth and eleventh grades were in the third group (G3).

### 3.2. Material

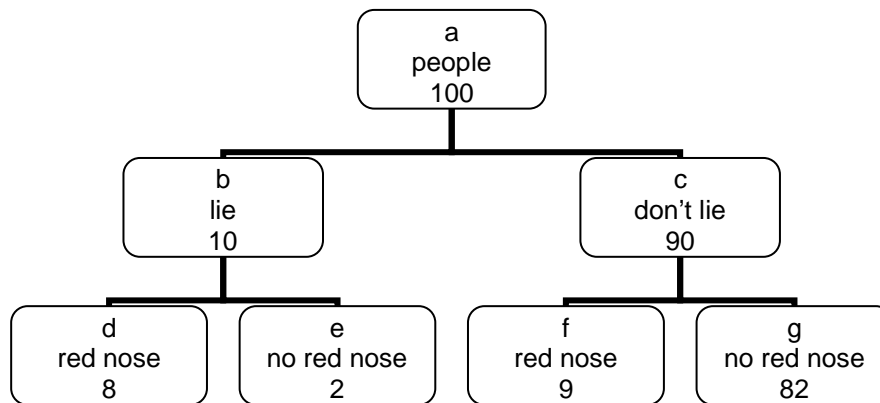
Six of the ten problems used by Zhu & Gigerenzer (2006) were translated for the purpose of this experiment. They were used in two formats: conditional probabilities and natural frequencies (see Red Nose Problem in two formats).

#### *Red Nose Problem: Conditional Probabilities*

Pingping goes to a small village to ask for directions. In this village, the probability that the person he meets will lie is 10%. If a person lies, the probability that he/she has a red nose is 80%. If a person doesn't lie, the probability that he/she also has a red nose is 10%. Imagine that Pingping meets someone in the village with a red nose. What is the probability that the person will lie?

#### *Red Nose Problem: Natural Frequencies*

Pingping goes to a small village to ask for directions. In this village, 10 out of every 100 people will lie. Of the 10 people who lie, 8 have a red nose. Of the remaining 90 people who don't lie, 9 also have a red nose. Imagine that Pingping meets a group of people in the village with red noses. How many of these people will lie? \_\_\_\_ out of \_\_\_\_.

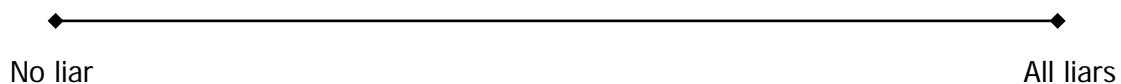
**Figure 2:** *The representation of the red nose problem in a frequency tree, from Zhu & Gigerenzer (2006)*

A qualitative form of each problem was created. All numerical data were replaced by a word. This word is either “few” or “many”. A same dichotomy was applied at the three numerical data necessary to solve the problem. Thus, each problem was declined in eight versions (Table 1). Two matching versions were thus created in which the format of the problems was counterbalanced (version A: first three problems in probabilities and the last three problems in natural frequencies; version B: the first three problems in natural frequencies and the last three problems in probabilities).

**Table 1:** *The contingency table 2 x 2 x 2 of the three probabilities handled*

Versions	Probability B	Probability D	Probability F
vA	Few	Few	Few
vB	Few	Few	Many
vC	Few	Many	Few
vD	Few	Many	Many
vE	Many	Few	Few
vF	Many	Few	Many
vG	Many	Many	Few
vH	Many	Many	Many

Participants must place a cross on a continuum of 20 cm which is build with two bounds: “no liar” at left; “all liar” at right (Figure 3). The distance from the left bound to cross is used by dependant variable.

**Figure 3:** *Continuum used for the red nose problem*

### 3.3. Procedure

Participants were given paper and a pen and as much time as they wanted. Three problems with questions in conditional probabilities in the eight versions (24 problems randomized) were presented before those in natural frequencies (24 others problems randomized).

#### 4. Results

We performed analyses of variance ( $2 \times 2 \times 2$ ) on mean scores per group for both formats (no difference between natural frequencies and conditional probabilities (Table 2).

Table 2

	Group 1	Group 2	Group 3
B	<b><math>F(1 ; 39) = 7,85, p &lt; .01</math></b>	<b><math>F(1 ; 39) = 38,0, p &lt; .001</math></b>	<b><math>F(1 ; 39) = 14,3, p &lt; .001</math></b>
D	<b><math>F(1 ; 39) = 27,28, p &lt; .001</math></b>	<b><math>F(1 ; 39) = 269,8, p &lt; .001</math></b>	<b><math>F(1 ; 39) = 116, p &lt; .001</math></b>
F	<b><math>F(1 ; 39) = 36,53, p &lt; .001</math></b>	<b><math>F(1 ; 39) = 15,9, p &lt; .001</math></b>	<b><math>F(1 ; 39) = 8,8, p &lt; .01</math></b>
B*D	$F(1 ; 39) = 1,33, p = .26$	$F(1 ; 39) = 1,3, p = .26$	<b><math>F(1 ; 39) = 13, p &lt; .01</math></b>
B*F	$F(1 ; 39) = 0,96, p = .33$	$F(1 ; 39) = 0,6, p = .45$	<b><math>F(1 ; 39) = 6,3, p &lt; .05</math></b>
D*F	$F(1 ; 39) = 2,50, p = .12$	$F(1 ; 39) = 1,7, p = .20$	$F(1 ; 39) = 0,0, p = .84$
B*D*F	$F(1 ; 39) = 2,82, p = .10$	$F(1 ; 39) = 1,9, p = .18$	$F(1 ; 39) = 0,0, p = .94$

*Results in bold are significant*

Results indicated a significant simple effect of the three data separately (probabilities B, or D, or F) on the judgment of the three groups. Nevertheless, interactions between B probability and D, or B and F were significant, only for the group 3.

All described effects of data variations on participants' judgments are proper. For example, when the *a priori* B probability is high, participants emitted a high response.

#### 5. Discussion

During the first middle of secondary school, students consider the three data set but only additively. During the second middle, students appear to treat multiplicative data statement incorporating in their reasoning is the *a priori* probability and the joint appearance or the *a priori* probability and the number of false positives. Specify, through our dimensional analysis, the participants have a representation of the problem that can be removed from that derived from the Bayes rule, but that goes in the same direction. Indeed, participants give a higher response when the data B is "Many" when it is "Few." In other words, they have the intuition that when the probability of B is high, the posterior probability that is requested will be. The participants seem to think in the right direction. To Siegler (1987, 1996, 1999, 2000), the development is characterized by many strategies at the same state. More precisely, he found that multiple strategies were used at each school level and developed the overlapping waves model. The prevalence of use of each strategy indicated the level of reasoning. Zhu and Gigerenzer (2006) described these strategies in the Bayesian reasoning during the development, but our results suggest that these strategies were the result of different manner to integrate information.

#### 6. Conclusion

The human Bayesian and probabilistic reasoning is considered at the lightening of two major theories. On the one hand, to Tversky and Kahneman (1974), human rationality is limited, and people use heuristics, with biased reasoning. On the other hand, Gigerenzer (1996) proposed a new and more optimistic approach to human rationality, to which human can emit a correct Bayesian inference, on the condition that problems were presented in natural frequencies. Our results suggested that both theories could define human judgments processes, if they are studied at the lightening of the heuristic/analytic theory of reasoning (Evans, 1989). People use heuristics to solve Bayesian problems. These heuristics are efficient, but people need a presentation in natural frequencies when they emit an analytic judgment, less intuitive.

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## SIMULATION OF POSITIVE EMOTIONS DURING DISCOURSE COMPREHENSION

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### Abstract

**Objectives:** Recent research on sentence processing suggests that comprehension of sentences describing emotionally laden events requires the construction of emotion simulation of the described event (Glenberg, Havas, Becker, & Rinck, 2005; Havas, Glenberg, & Rinck, 2007; Havas, Glenberg, Gutowski, Lucarelli, & Davidson, 2010). The present study extends this research in two ways. First, whereas most previous studies used sentence stimuli, our research focused on extended linguistic events (texts). Second, both online (self-paced reading times) and offline (verbatim and inference questions) measures of comprehension were taken. **Method:** 60 individuals ranging in age from 18 to 58 ( $M_{\text{age}} = 26.72$ ,  $SD_{\text{age}} = 8.50$ ) were recruited to take part in the experiment: 26 participants were male ( $M_{\text{age}} = 29.42$ ;  $SD_{\text{age}} = 10.93$ ), 32 were female ( $M_{\text{age}} = 24.63$ ;  $SD_{\text{age}} = 5.36$ ), and two participants did not indicate gender. First, participants were instructed to read a neutral non-emotional text which served as a baseline for later measurements. Second, facial posture was manipulated: participants were randomly assigned to one of the three conditions and asked to read a target text identical in size to the tutorial text (divided into 8 paragraphs). In the matching condition participants read the text while holding the pen sideways between the teeth to force a partial smile (Oberman, Winkielman, & Ramachandran, 2007), in the mismatching condition participants read the target text while having a pen straight between the lips, without touching the pen with their teeth, to prevent smile (Oberman et al., 2007; Strack, Martin, & Stepper, 1988), and in the control (neutral) condition participants read the target text in a normal condition without a pen. Reading times for both tutorial and target texts were collected. Third, participants answered a set of filler questions. Fourth, participants' offline explicit and implicit comprehension of discourse was assessed. **Design:** An 8 (Paragraphs 1 to 8) within factor x 3 (condition: matching vs. mismatching vs. control) between factor mixed ANOVA, with tutorial reading time as a covariate, was conducted to analyze the reading times of the target text. Offline performance was assessed as the between-participants variable. **Results:** Reading times were faster when participants' facial postures were congruent with emotional valence of the text (matching condition) rather than incongruent (mismatching condition) or neutral (control condition). At the same time, manipulation with facial posture had no influence on offline measures of comprehension. This suggests that emotion simulation is involved in online comprehension, but may not have any consequences for offline discourse processing.

**Keywords:** *Discourse comprehension, Emotion simulation, Embodied cognition, Online processing, Offline processing.*

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## A PILOT STUDY: AYURVEDIC APPROACH ON MEMORY STIMULATION IN THE FRENCH WEST INDIES

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### Abstract

**Background:** The need to prevent from Alzheimer disease led us to offer sessions of cognitive stimulation. **Design:** to assess effectiveness of cognitive stimulation and the relevance of ayurvedic categories in a nondemented population. **Methods:** We studied the ayurvedic categories, the overall health perception, memory complaints and the evolution of associative memory in 102 healthy elderly between Time 1 and Time 2 (three months after) including 46 healthy controls who didn't receive stimulation. We use self-assessment questionnaires including an examination of the ayurvedic constitutions and memory complaint, several scales of perceived health (cognitive, physical, mental and well-being) and a test of associative memory. **Results:** Pitta-Kapha is the most represented in the population, which means a sharp and strong memory. We find a statistically significant improvement for subjective memory and associative memory. We note the absence of major memory complaint. **Conclusion:** Cognitive stimulation is effective and ayurvedic categories offer a relevant frame for the understanding of the individual variants of the cognitive functioning in the healthy elderly.

**Keywords:** Ayurvedic constitution, Cognitive stimulation, Health perception, Memory complaint, Associative memory.

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### 1. Introduction

According to ayurvedic medicine, many herbs such as brahmi, shatavari and polygonum multiflorum are effective in treating cognitive impairment [1, 2, and 3] and anxiety [1]. Ayurvedic constitutions are biological humors that are related to the elements of nature that is to say Ether, Wind, Fire, Water and Earth.

Cognition is the set of mechanisms by which the organism acquires processes, maintains and operates information. The mechanisms include perception, learning, memory, intelligence and language. These cognitive functions, which are implanted in the brain, are formulated in the form of theoretical models of neuropsychology.

Cognitive stimulation is beneficial for people with subjective complaints of memory [4, 5 and 6].

### 2. Objectives

The objective of the present study was to determine the effectiveness of cognitive stimulation and to estimate the influence of the three ayurvedic constitutional categories on the effectiveness of cognitive stimulation over a period of three months. Based on the transactional model of health psychology, the general hypothesis tested here is that some biopsychosocial determiners have an impact on the effectiveness of cognitive stimulation and greatly influence memory and perception of their health.

### 2. Methods

#### 2.1. Participants

They are 102 elderly people including 56 people who received twelve sessions of cognitive stimulation and 46 people as a healthy controlled group, from January 2012 to April 2013. All participants got information about the study. They gave informed consent.

## 2.2. Procedure

Our inclusion criterion is a score upper than 6/8 at Memory Impairment Screen [8] and age over fifty years. We exclude individuals with a psychiatric history and disabling conditions in order to keep healthy population.

## 2.3. Self-assessment questionnaire and instrument

There are two times of research. During the first time, both groups completed a health questionnaire, an examination of ayurvedic constitutions [7], a questionnaire on memory complaint, various scales about health perception like subjective memory, well-being, physical and mental health which are scored from 0 (low) to 20 (excellent) [4, 5] and test of associative memory with fifteen pairs of pictures. Age, gender and marital status are collected during the first time of the study [1]. The sociocultural level is assessed by a quotation used in clinical practice [9]. The questionnaire about memory complaint [4, 5] described "memory lapses" with eleven items on a five-point scale. The examination of constitutions [7] consists in thirty-eight items. The participants choose among the three biological categories called Vata (V), Pitta (P) or Kapha (K), the one that best fits their situation. Once the questionnaire is completed, we obtained one of the double-categories: VP, VK, PV, PK, KV and KP.

Three months later (time 2), we used the same tools in order to estimate the evolution of their associative memory and the evolution of their health perception between time 1 and time 2 with decreasing degrees: (1) improvement, (2) stabilization and (3) worsening.

## 2.4. Statistical Analysis

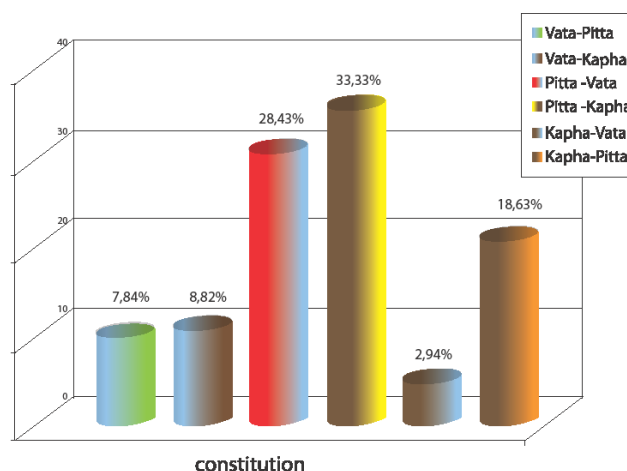
Datas of the 102 healthy people were compared using average, t-test for paired samples and linear regression analysis. All analyses were done using SPSS software (SPSS 17.0).

## 3. Results

There were 82 women and 20 men which were between 50 to 88 years old. Half of the subjects completed a university degree. Most of them have a double Pitta-Kapha constitution followed by the Pitta-Vata. Indeed, the main Pitta constitutions are more numerous.

Picture 1 present distribution of the ayurvedic constitutions. There was no significant difference in the age, the sex, the sociocultural level and the ayurvedic constitutions between the two groups.

**Picture 1:** *Distribution of the ayurvedic constitutions (Results are percentages)*



**Table 1:** *Associative memory and health perception scores in the healthy old people*

	Mean	N	standard-deviation	p value
Subjective memory T1	12,26	90	4,093	0,006
Subjective memory T2	13,16	90	2,968	
Perceived physical health T1	14,17	90	2,988	0,470
Perceived physical health T2	14,39	90	3,104	
Perceived mental health T1	14,72	90	3,804	0,232
Perceived mental health T2	15,18	90	3,578	
Perceived well-being T1	15,30	90	3,227	0,237
Perceived well-being T2	15,62	90	3,096	
Associative memory T1	6,65	69	4,273	0,000
Associative memory T2	9,22	69	4,865	

p value assessed by t-test analysis of variance. Results are means and standard deviation.

Means comparison of the participants are shown in table 1. We found an improvement for subjective and associative memory, which was statistically significant between Time 1 to Time 2.

**Table 2:** *Predictive role of the antecedent factors on the adjustment criteria about the effectiveness of the cognitive stimulation in the elderly healthy*

	Degree of liberty	F	R <sup>2</sup>	$\beta$ standardized	p value
<u>Model 1</u>	50	4,034	0,381		0,000
sociocultural level				0,257	0,024
<u>Model 2</u>	71	2,157	0,195		0,034
marital status				- 0,290	0,008
<u>Model 3</u>	71	3,577	0,287		0,001
ayurvedic double constitution				-4, 322	0,000
main constitution				4,633	0,000
second constitution				1,347	0,000

p values assessed by linear regression analysis. Results are the significance of models.

We have tested several models to check the predictions from our hypotheses (see table 2, table 3 and table 4). Based on the transactional model of health psychology, we have antecedent factors, mediators and adjustment criteria.

**Table 3:** *Predictive role of the antecedent factors on the mediators about the effectiveness of the cognitive stimulation in the elderly healthy*

	Degree of liberty	F	R <sup>2</sup>	$\beta$ standardized	p value
<u>Model 1</u>	82	5,109	0,336		0,000
sociocultural level				0,242	0,008
ayurvedic double constitution				-3,347	0,001
<u>Model 2</u>	83	1,988	0,163		0,049
group of the study				- 0,365	0,001

p values assessed by linear regression analysis. Results are the significance of models.

**Table 4:** *Predictive role of the mediators on the adjustment criteria about the effectiveness of the cognitive stimulation in the elderly healthy*

	Degree of liberty	F	R <sup>2</sup>	$\beta$ standardized	p value
<u>Model 1</u>	57	5,732	0,557		0,000
subjective memory T1				0,411	0,005
<u>Model 2</u>	57	5,012	0,523		0,000
perceived well-being T1				0,627	0,000
<u>Model 3</u>	36	2,218	0,406		0,016
semantic memory complaint				0, 319	0,027
associative memory T1				0,479	0,000
<u>Model 4</u>	57	3,229	0,414		0,000
Perceived physical health T1				0,562	0,000
autobiographical memory complaint				-0,239	0,019

p values assessed by linear regression analysis. Results are the significance of models.

Overall, we note a lack of major memory complaint. There's no memory complaint for topographic memory, spatial orientation, and for semantic memory and also for autobiographical memory. Complaints are low for attention and working memory, and for memory of the location of objects, and for memory for names of persons, and for memory object names, and for digit memory and digital logic, and for memory source, and also for prospective memory.

#### 4. Discussion

In this prospective longitudinal study with a control group, we have predicted many results thanks to our linear regressions.

Subjects with a high level of education have better associative memory at time 2 and better memory, well-being and physical health perception compared to lower levels, which is often linked to a high socio-economic status and promoting access to prevention and care. Thus, we have confirmed the beneficial effect of cognitive stimulation on a specific type of memory in old people with high sociocultural level [9].

The use of the ayurvedic constitutions is original and innovative because studies generally focus on herbs. These categories help for diagnosis [7].

As Pitta-Kapha category predicts a very significant lack of semantic and autobiographical memory complaints (see the models 3 and 4 in table 4), it corresponds to a sharp and strong memory [8]. During the sessions, the trained group worked semantic memory and autobiographical memory through the review of daily news and the writing of their life story, which are a kind of cerebral protection [10].

#### 5. Conclusion

The results have confirmed the effectiveness of brain training in the healthy elderly. Some variables have an impact on health perception. Associative memory has significantly improved over the past three months. Pitta-Kapha constitution corresponds to a sharp and strong memory, so we can better understand how memory works.

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## SELF-PERCEIVED ACADEMIC EMPLOYABILITY SKILLS AND PHYSICAL QUALITY OF LIFE ON FIRST-YEAR UNIVERSITY STUDENTS' WELL-BEING

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### Abstract

**Objective:** With the Bologna Process, students' wellbeing and generic skills for employability became priorities for European universities, but their respective influences remain unclear. Our aims were to analyse the relationships between Academic Employability Skills (AES), psychological suffering (General Health Questionnaire) and psychological quality of life (psychological Whoqol-bref) and other physical, social and environmental Whoqol-bref domains and socio-demographic characteristics. **Design:** Nine months after the start of their first-year at University of Luxembourg, 973 students were invited to participate at a cross-sectional study. **Methods:** An online questionnaire was proposed in French, German, and English to assess : a) two instruments described the student's well-being : 1) Whoqol-bref's psychological subscale-6 items (Cronbach's alpha 0.77) with higher the score, higher the psychological quality of live; 2) GHQ-12 items scale (Cronbach's alpha 0.75) with lower the score, lower the psychological suffering; and one explored the AES-5 items scale (Cronbach's alpha 0.76) (*capacities of drafting, solution problem, team work, supervision / direction of others, and use new technologies*). Data were analysed using logistic models. **Findings:** 321 first-year students participated in the study. Psychological Whoqol-bref's and AES's scores are positively correlated. This relation was verified for each item (*drafting, critical spirit, solution to problem, team work, and supervision/direction of others*) except *use new technologies*. Between the correlations of the two instruments only 3/6 items of psychological Whoqol-bref (*ability to concentrate, satisfaction with self, negative feelings*) are correlated with 8/12 items of GHQ-12 (*sleep lost, making decisions, feeling under strain, no overcome difficulties, depressed, losing self-confidence, considering his/her self as a worthless, reasonably happy*). A positive effect between the psychological Whoqol-bref and the AES scores was observed, including with physical, social relationships and environmental domains. No connection exists between the AES and the GHQ-12 scores; on the other side the GHQ-12 score has a negative influence on physical Whoqol-bref status. **Conclusions:** If a wellbeing suffering contributes in less physical quality of life, the better wellbeing, the higher academic employability skills. Campus should care of students' wellbeing and implement counselling activities and adapted environmental to improve their sustainable skills for employability. If the university could maintain the well-being indicators at appropriate levels or manage decreases as they occur, it would have implications for health promotion by creation of new student support systems and services developing sustainable conditions for better European Higher Educational Area.

**Keywords:** Psychological Whoqol-bref, GHQ-12, First-year students, Wellbeing, Academic employability skills.

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### 1. Introduction

With the increasing access to the European universities, students are confronted with difficulties which can be described as the imbalance between learning conditions and the capacity of students to deal with them in their socioeconomic and multi-cultural contexts (Chau 2012). In the same time, too many students drop out and leave university without diploma as the result of a long-lasting lack of learning motivation, a failure in expectation and confidence in the institution's project (Vilhjalmsdottir, 2010). First-year students in particular undergo a considerable amount of difficulties in coping with university life and present a vulnerable period when young people establish and adjust new psychological identities (Amara, 2012). In this context, it is of paramount importance to identify some challenges and difficulties related to this moment of transition. Moreover wellbeing is essential for effective learning, and a solid

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school education is a strong predictor of lifelong psychological health and quality of life. However, social and occupational status in adulthood and health status throughout life are determined by success in education and by the number of years of schooling (Ross, 1996).

In order to create a European Higher Educational Area, the Bologna Process intend to initiate a series of university reforms to achieve performance matching best systems for fulfilling the Lisbon strategy goals for growth. Graduate's sustainable employability – i.e. their capability of gaining initial employment, maintaining employment, and obtaining new employment if required (Rothwell, 2009) - is a priority for European universities. So, perceptions of the purpose and process of higher education have moved over time and now employability is less understood like as a general quality which can be achieved whatever the academic level than as a product of higher education. Nowadays, students must, during their courses, not only acquire the necessary knowledge to obtain the diploma, but also gain competences sought by employers. They are encouraged to be self-learning, self-actualising and self-initiating. According to that, being employable appears as a new challenge which responsibility rests on individual capabilities and this creates a lot of pressure on the student's life (Jameson, 2012; Moir, 2012). Literature shows that a major effort has been made to determine what capabilities are important to be employable. Several lists of skills have been conceived by professionals and teachers, including the problem-solving, communication, teamwork, information technology, and self-management as the most decisive competences needed (Bagshaw, 1997).

## **2. Objective**

By focusing among first-year students, the aim of our study is to analyse the relationships and the effects between wellbeing (psychological suffering and quality of life), and employability skills including other determinants (physical, environmental and social relationships quality of life, satisfaction with services).

## **3. Design and Methods**

Nine months after the start of their first year at university, 973 students from the faculties of Luxembourg University (Sciences & Technology, Law & Finances, and Social Sciences) were contacted by a general e-mail to participate at the survey. Students were invited to complete, via an anonymous process, an online questionnaire in the language of their choice (French, German or English).

### **3.1. Two instruments described the student's well-being**

- Whoqol-bref's psychological subscale (6 items) (Skevington, 2010) measured on a five-point (Cronbach's alpha 0.77). The higher the score, the better the psychological quality of life.

- GHQ-12 scale (Tait, 2002) was scored on a four-point scale (range 0-36) (Cronbach's alpha 0.75). The lower the score, the lower the psychological suffering.

### **3.2. One explored the academic employability skills**

- AES is a self-assessing scale of capacities of drafting, solution problem, team work, supervision / direction of others, and use new technologies (Baumann, 2011). Each level was estimated on a four point scale from 'not very good' to 'excellent' (Cronbach's alpha 0.76).

### **3.3. Other factors**

- Satisfaction with university services includes six items scored in a range from 'very dissatisfied' to 'very satisfied'.

- Three other Whoqol-bref's subscales (Skevington, 2010) have been assessed on a five points scale for physical (7 items), environmental (8 items), and for social relationships (3 items).

- Sociodemographic characteristics: sex, age, nationality, 12th grade diploma, level of education of the parents and their professional status.

### 3.4. Statistical analyses.

We performed a regression of each dependant variable of the wellbeing (psychological Whoqol-bref and GHQ-12 scores). Among potential explanatory variables, we selected those with a significant simple effect and/or significant interaction with the two wellbeing scales at the  $p < 0.10$  after which we progressed with a multiple regression.

## 4. Findings

Nine months after the beginning of their first year, 321 students were included in analyses. The psychological Whoqol-bref score is positively correlated with the academic employability skills (AES); for each item separately, this relation is verified, except the use of new technologies. At the opposite, there's no association between the GHQ-12 and the AES scores. Moreover, the psychological Whoqol-bref and the GHQ-12 scores are linked with the other Whoqol-bref subscales (Table 1).

**Table 2: Relationships between Psychological Whoqol-bref and GHQ-12, and other determinants (bivariate tests Pearson's correlation)**

	Psychological Whoqol-bref score		GHQ-12 score	
	Corr.	p	corr	p
GHQ-12 items	-0.42	<b>&lt;0.001***</b>	-	-
Psychological Whoqol-bref (6 items)	-	-	-0.42	<b>&lt;0.001***</b>
Physical Whoqol-bref	0.64	<b>&lt;0.001***</b>	-0.36	<b>&lt;0.001***</b>
Social relationships Whoqol-bref	0.51	<b>&lt;0.001***</b>	-0.20	<b>0.050*</b>
Environmental Whoqol-bref	0.51	<b>&lt;0.001***</b>	-0.26	<b>0.012*</b>
Satisfaction with university services	0.17	0.109	-0.15	0.160
Academic Employability skills (AES) score	0.25	<b>&lt;0.001***</b>	-0.03	0.795
AES item 1- Drafting/writing	0.18	<b>0.002**</b>	-0.01	0.945
AES 2- Critical spirit/having sound judgment	0.17	<b>0.003**</b>	0.04	0.705
AES 3- Solution to problem	0.23	<b>0.000***</b>	-0.12	0.232
AES 4- Team working	0.16	<b>0.004**</b>	0.03	0.778
AES 5 - Supervision/direction of others	0.25	<b>0.000***</b>	-0.07	0.510
AES 6 - using of new technologies	0.10	0.074	-0.01	0.931

p-value : \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

The correlations between the two instruments of wellbeing show that 3/6 items of psychological Whoqol-bref (*ability to concentrate; satisfaction with self; negative feelings*) are correlated with 8/12 items of GHQ-12 (*lost much sleep, making decisions, feeling under strain, no overcome difficulties, depressed, loosing self-confidence, considering his/her self as a worthless person and reasonably happy*) (Table 2).

**Table 2: Associations between psychological WHOQOL-bref's items and GHQ-12's items (bivariate tests Pearson's correlation)**

	GHQ1		GHQ2		GHQ3		GHQ4		GHQ5		GHQ6	
	Corr.	p	Corr	p	Corr	p	Corr	p	Corr	p	Corr	p
Item 5	.008	.955	.065	.633	-.035	.799	.174	.199	-.051	.710	.037	.788
Item 6	.107	.431	-.067	.623	-.038	.779	.061	.654	-.021	.878	-.027	.843
Item 7	-.157	.248	-.286	<b>.033</b>	-.096	.483	-.094	.491	-.205	.130	.017	.900
Item 11	-.027	.842	-.080	.558	.009	.949	.142	.295	-.184	.176	-.109	.424
Item 19	-.182	.180	-.245	.068	-.108	.430	.204	.132	-.307	<b>.021*</b>	-.263	<b>.050*</b>
Item 26	-.078	.569	-.308	<b>.021*</b>	-.004	.977	.347	<b>.009**</b>	-.297	<b>.026*</b>	-.074	.585

p-value : \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

	GHQ7		GHQ8		GHQ9		GHQ10		GHQ11		GHQ12	
	Corr	p	Corr	p	Corr	p	Corr	p	Corr	p	Corr	p
Item 5	-.112	.412	.126	.354	-.109	.424	-.066	.631	-.024	.861	-.153	.259
Item 6	.022	.874	.205	.130	-.129	.344	-.072	.596	-.085	.535	-.003	.980
Item 7	-.116	.393	-.051	.709	-.273	<b>.042*</b>	-.138	.311	.040	.769	-.187	.168
Item 11	-.142	.295	.217	.108	-.122	.370	-.149	.272	-.156	.252	-.035	.798
Item 19	-.158	.244	.130	.340	-.345	<b>.009**</b>	-.371	<b>.005**</b>	-.401	<b>.002**</b>	-.299	<b>.025*</b>
Item 26	-.051	.707	.260	.053	-.264	<b>.049*</b>	-.111	.416	-.194	.152	-.078	.569

p-value : \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$



**Psychological WHOQOL-bref 6 items** (Skevington et al. 2010)

- Item 5: *How much do you enjoy life?*  
 Item 6: *To what extent do you feel your life to be meaningful?*  
 Item 7: *How well are you able to concentrate?*  
 Item 11: *Are you able to accept your bodily appearance?*  
 Item 19: *How satisfied are you with yourself?*  
 Item 26: *How often do you have negative feelings such as blue mood, despair, anxiety, depression?*

**GHQ – 12 items** (Goldberg et al. 2007)

Have you recently...

- GHQ1: *Been able to concentrate on what you are doing?*  
 GHQ2: *Lost much sleep over worry?*  
 GHQ3: *Felt that you are playing a useful part in things?*  
 GHQ4: *Felt capable of making decisions about things?*  
 GHQ5: *Felt constantly under strain?*  
 GHQ6: *Felt you couldn't overcome your difficulties?*  
 GHQ7: *Been able to enjoy your normal day to day activities?*  
 GHQ8: *Been able to face up to your problems?*  
 GHQ9: *Been feeling unhappy or depressed?*  
 GHQ10: *Been losing confidence in yourself?*  
 GHQ11: *Been thinking of yourself as a worthless person?*  
 GHQ12: *Been feeling reasonably happy, all things considered?*

There is a positive effect of psychological Whoqol-bref's on high physical state and high AES. On the other hand, a negative effect can be observed between physical and GHQ'12's scores (Table 3).

**Table 3:** *Effects of self-perceived Academic Employability Skills and other determinants on psychological WHOQoL-bref and GHQ-12. regression coefficient (SE) and 95% confidence interval*

		Psychological Whoqol-bref score				GHQ-12 score				
		Est.	SE	95% CI		p	Est.	SE	95% CI	
				Lower	Upper				Lower	Upper
(Intercept)		0.26	5.24	-10.06	10.58	0.961	23.79	2.22	19.41	28.18
Academic Employability skills score		0.14	0.06	0.24	0.26	<b>0.019**</b>	-0.04	0.03	-0.09	0.01
Whoqol-bref	Physical	0.38	0.06	0.26	0.50	<b>&lt;0.001**</b>	-0.10	0.03	-0.15	-0.05
	Social relationships	0.28	0.04	0.20	0.35	<b>&lt;0.001**</b>	-0.01	0.02	-0.04	0.03
	Environmental	0.19	0.05	0.09	0.29	<b>&lt;0.001**</b>	-0.01	0.02	-0.05	0.03

p-value : \*p<0.05, \*\*p<0.01, \*\*\*p<0.001

## 5. Conclusions

Our study analysed two well-being tools (psychological Whoqol-bref and GHQ-12), but only psychological quality of life appears related with academic employability skills. Both instruments are highly linked with physical status which is an important determinant of the adolescent life. If a well-being suffering contributes in less physical quality of life, the better well-being, the higher academic employability towards skills. Ability to concentrate, self-satisfaction and negative feelings depend on the individual personality. In this context, being anxious, unable to concentrate on a task or to be self-satisfied, can be considered as personality traits which are amplified during adolescence (Amara, 2012). On the contrary, the body image, the meaning that we give to life or the fact to enjoy life or not are strongly influenced by the social environment, (e.g. the people with whom we live, we speak and whose opinion does matter).

The students' academic skills relative to employability is a self-assessment measure of self-efficacy (Rotwell, 2009). Indeed, the students who are more confident in their capacity to use their new acquired competences and in their ability to solve difficulties are the ones who felt able to project themselves in a professional context. However, if employability performance depends on knowledge, skills and abilities possessed, how to use those assets and present them to employers relies on confidence on its own values. Our interpretation suggests that the student's individual project appears probably not well-defined in the future. The feeling of personal effectiveness is a determinant of the process to believe they can obtain a potential job later (Tait, 2002) giving and enhancing the motivation to go on.

Campus staff should care of student's wellbeing by implementing counselling adapting environmental conditions to improve their sustainable skills for employability. If the university could maintain the wellbeing indicators at appropriate levels or manage decreases as they occur, it would have implications for services of comprehensive health promotion and their influence on educational achievement's predictors of programmes.

Our findings show the importance of assessing indicators of well-being and monitoring students during their first university year. Such tracking allows to provide those young people

an appropriate assistance and services (Stecker, 2004). Further research, with all undergraduate students and also in other universities, are necessary to confirm those results.

In many universities, tutoring groups have been created to help students to manage their university work or to learn work methods. Our findings are essential to those designing and implementing individual or community programs in health promotion because they lead to consider other types of support : workshops to develop empowerment strategies, discussion groups, welfare initiatives, individual help, information provided on websites, leaflets, hotlines, and other methods to increase the capacity of students to cope with anxiety and manage their lives. Moreover, faculty is a natural setting for the promotion of 'help workshops' whose aim is to improve acquisition of skills like drafting/writing, critical thinking, problem solving, team working, supervision, and using new technology. Information is important too in the promotion of autonomy, self-respect and development of the ability to take act. It increases the participation of students in their training and improves their performance (Spitz, 2007).

Creating work groups on purpose to connect students with potential employers, planning meetings with professionals and sessions on job-seeking techniques are also ways to help students to gain confidence in their capabilities and, according to our findings, to increase their well-being. Participate in these activities promote peer interaction and contribute to student's support. Besides, these Workshops could be managed by students in Master's who, under teacher's supervision, would implement their academic employability skills.

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## THE PROBLEM OF DIETING: IMPLICIT FOOD ATTITUDES AND AUTOMATIC APPROACH TENDENCIES IN DIETERS AND NON-DIETERS.

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### Abstract

**Objectives:** The purpose of the present study was to assess the role of implicit attitudes towards food and automatic approach/avoidance tendencies in dietary restraint. Research suggests that positive implicit attitudes towards high-fat, calorie-dense food may contribute to impulsive eating behaviour when self-control capacity is diminished ('ego depletion') – as is the case with dietary restraint. We hypothesised that both dieters and non-dieters would hold positive implicit associations with high-fat food and that dieters would have stronger approach tendencies for high-fat food. We were also interested in an exploratory assessment of differences between successful and unsuccessful dieters. **Design:** We adopted a between-subject design to assess differences in implicit food attitudes and automatic approach/avoidance tendencies towards food in current dieters and current non-dieters, and between successful and unsuccessful dieters. **Methods:** One hundred and thirty eight female participants completed an implicit association test (IAT) as a measure of implicit attitudes towards high-fat (HF) and low-fat (LF) food, a series of questionnaires to assess their eating behaviours and explicit attitudes, and a pictorial reaction time task to assess approach and avoidance for HF and LF food. **Findings:** Explicitly, participants in all groups reported a preference for HF over LF food. Current non-dieters had a significantly stronger implicit preference for HF over LF food compared to current dieters, who did not have a preference for either. Successful dieters had a marginally significant preference for HF food; unsuccessful dieters did not have a significant preference for either. Data from the approach/avoidance task did not support the role of ego depletion in restrained eating. **Conclusions:** The results suggest that implicit preference for HF food may decrease as a consequence of dietary restraint, particularly in unsuccessful dieters. However, these differences were not reflected in self-report, which suggest some degree of implicit-explicit dissonance in unsuccessful restrained eaters. The hypothesis that positive implicit attitudes towards HF food may drive impulsive eating as a consequence of ego depletion was not supported. Further research is needed to clarify the causal links between restraint and the cognitive changes observed, and the dietary strategies associated with successful and unsuccessful restraint.

**Keywords:** *Implicit attitudes, Dietary restraint, IAT, Approach and avoidance, Weight loss.*

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### 1. Introduction

An explicit attitude constitutes a person's valenced evaluation of a target object. These are typically assessed through self-report and are presumably the consequence of conscious deliberation. By contrast, implicit attitudes can be conceptualised as associations in memory between an attitude object and a valenced response. These are activated automatically in response to the attitude object (Fazio, Sanbonmatsu, Powell, & Kardes, 1986; Hermans, De Houwer, & Eelen, 1994). Implicit attitudes are thought to be formed as a consequence of repeated presentation of the attitude object and the valenced response in close temporal or spatial proximity (Olson & Fazio, 2001; Dijksterhuis, 2004): for instance, eating cake and experiencing a pleasant taste. Implicit and explicit attitudes do not necessarily correspond; in some cases, a discrepancy can develop on the continuum between the automatic response and the conscious evaluation of the stimulus (Cunningham, Zelazo, Packer, & Van Bavel, 2007). Implicit attitude research has relevance for understanding eating behaviour, particularly with regards to dietary restraint and restraint failure. Eating is a highly complex and multi-faceted behaviour, as it is governed not only by basic biological and homeostatic mechanisms but also psychological states (Cools, Schotte, & McNally, 1992; Ganley, 1989), culture (Warren,

Gleaves, Cepeda-Benito, Fernandez, & Rodriguez-Ruiz, 2005; Tiggemann, Verri, & Scaravaggi, 2005) and the values and goals associated with specific social contexts (Schifter & Ajzen, 1985; Warren & Stanton, 1990). Self-imposed dietary restraint often fails (Jeffery et al., 2000); in part, this is down to the motivational conflict which arises between long-term dietary goals and short-term impulses (Hofmann, Friese, & Strack, 2009). This conflict can be conceptualised as the explicit rejection of automatic associations, which leads to difficulty in making behavioural decisions.

Research in implicit food attitudes has yielded mixed findings. Some studies have found an implicit preference for high-fat, compared to low-fat, food in both restrained and unrestrained eaters (Roefs, Herman, MacLeod, Smulders, & Jansen, 2005; Veenstra & de Jong, 2010), others have found no such preference in REs (Craeynest, Crombez, Haerens, & De Bourdeaudhuij, 2007). If an implicit preference for high-fat foods is prevalent regardless of a dietary restraint goal, this may explain why most people find dieting challenging. Explicit attitudes tend to predict behaviour which is controlled and rational, while implicit attitudes are better predictors of impulsive or spontaneous behaviour (Stangor, Sullivan, & Ford, 1991; Hofmann, Rauch, & Gawronski, 2007). Ego depletion theory posits that people have a finite amount of self-control; exerting self-restraint (including dietary restraint) depletes our self-control resources and leads us to behave in a less restrained, more impulsive way (Baumeister, Bratslavsky, Muraven, & Tice, 1998). If people tend to act on positive implicit associations with high-fat foods in a state of ego depletion, this can explain why people often indulge in the very foods they are trying to avoid, despite an explicit restraint goal.

## 2. Design and objectives

We adapted a between-subject design; participants completed a measure of implicit attitudes towards high-fat and low-fat food, an automatic approach/avoidance task towards high-fat and low-fat food, and a series of questionnaires to assess their eating disorder (ED) pathology, diet status and explicit food attitudes. Participants were then grouped as current vs. non-current dieter (restrained eater), and as successful vs. unsuccessful dieter in order to address different aspects of our hypotheses.

We hypothesised that all participants would report positive implicit attitudes towards high-fat food, compared to low-fat food. We assumed current dieters would be more likely to be in a state of ego depletion and therefore more likely to impulsively act on those implicit attitudes; we therefore anticipated that current dieters would have stronger approach tendencies for high-fat food compared to current non-dieters.

Our second aim was exploratory; we were interested in differences in a) implicit food attitudes and b) automatic approach/avoidance tendencies between successful and unsuccessful dieters. We anticipated that successful dieters may have a more positive attitude towards low-fat foods (contributing to stronger approach tendencies for those foods), or a more negative attitude towards high-fat foods (contributing to stronger avoidance tendencies for those foods).

## 3. Method

One hundred and fifty seven female participants (age  $M=23.3$ ; BMI  $M=21.2$ ) were included in the final sample. Implicit food attitudes were assessed using a dessert/vegetable Implicit Association Test (Greenwald, McGhee, & Schwartz, 1998). Automatic food approach and avoidance was assessed using a response-compatibility approach/avoidance task (Papies, Barsalou & Custers, 2012). Participants also completed a series of questionnaires, including the Eating Disorders Examination Questionnaire (Fairburn & Beglin, 1994), the Dutch Eating Behaviour Questionnaire (van Strien, Frijters, Bergers, & Defares, 1986), an explicit food attitudes questionnaire, including analogue ambivalence scales and an eating habits questionnaire adapted from van Strien (1997) and designed to assess current restraint state and trait restraint success. Participants were classified as current dieters (CD;  $N=44$ ) if they reported being on a diet at the time of the study and current non-dieters (CND;  $N=82$ ) if they reported not being on a diet at the time of the study. Participants who reported their typical restrain

success above the mean of 3 were classified as successful dieters (SD;  $N=30$ ). Those who reported a success below the mean of 3 were classified as unsuccessful dieters (USD;  $N=28$ ). Those who did not report dieting in the past 12 months were classified as non-dieters (ND;  $N=35$ ).

#### 4. Results

There were no BMI differences between CD and CND,  $t(124)=1.00$ ,  $p>.1$ . Current dieters scored higher on the EDE-Q compared to CND, and also on the DEBQ. The groups did not differ in self-reported food attitudes. Analyses of variance suggested that CND had higher IAT-D scores compared to CD,  $F(1,123)=19.41$ ,  $p=.000$ . One-sample t-tests indicated that CND held stronger positive implicit associations with HF, compared to LF, food:  $t(80)=4.8$ ,  $p=.000$ . By contrast, CD held a marginal preference for LF food:  $t(43)=-1.94$ ,  $p=.059$ . No group differences were found in automatic approach/avoidance tendencies, all  $p$ -values  $>.1$ .

There were no differences in BMI between or between ND, SD and USD,  $F(1,90)=.15$ ,  $p>.1$ . Main effects of group were found in the analysis of EDE-Q and DEBQ scores; however, differences between SD and USD were not significant. No group differences were found in explicit food attitudes. Analyses of IAT performance yielded a significant main effect of group,  $F(2,89)=5.81$ ,  $p=.004$ . However, multiple comparisons suggest that this was driven by differences between USD and ND, 95% CIs  $[-.10, .70]$ ,  $p=.005$ . Descriptively, successful dieters had a stronger preference for HF to LF food, compared to unsuccessful dieters, but this comparison did not reach statistical significance, 95% CIs  $[-.04, .55]$ ,  $p=.103$ . No group differences were found in automatic approach/avoidance tendencies, all  $p$ -values  $>.1$ .

#### 5. Discussion

The aim of the study was to assess the role of implicit attitudes in dietary restraint and their impact on automatic approach and avoidance behaviour. Results suggest that the implicit preference for high-fat foods typically observed in normative population samples may decrease in people who are currently engaged in dietary restraint. These findings do not support the role of ego depletion and implicit HF food preference as an interference to the restraint goal; in fact, the attitudinal change may support restrained eating behaviour.

Dieter and non-dieter groups did not differ in their explicit (self-reported) attitudes towards food. However, implicit attitudes towards HF food were significantly more positive in non-dieters. Descriptively, there was a trend for USD in particular to hold stronger positive attitudes towards LF, rather than HF, food. Although differences between SD and USD did not reach significance, data trends suggest that stronger differences may be found between more heterogeneous groups. The results do not support the hypothesised role of ego depletion and implicit food attitudes in dietary restraint failure; in fact, they suggest that changes in implicit attitudes may instead be beneficial in pursuing the restraint goal. Further research is necessary to qualify the nature of the relationship between implicit attitude change and behavioural strategies employed by restrained eaters. The attitude change is consistent with operant conditioning paradigms in implicit attitude research (e.g., Olson & Fazio, 2001); these may be worth pursuing in the specific context of dietary restraint.

It must be noted that the implicit attitude assessment was conducted in a dual-category paradigm; the attitudes assessed are therefore relative as opposed to absolute. It is therefore advisable to replicate the study using a single-category method before rejecting the ego depletion hypothesis.

#### 6. Conclusions

The results of the current study do not support the role of ego depletion in automatic food approach in dietary restraint failure; however, further research is necessary before it can be rejected with confidence. The findings do suggest that cognitive changes may take place on an implicit (but not explicit) level during dietary restraint. A further study is currently being

planned to address the causal order of the cognitive changes taking place, and how they interact with different restraint strategies adopted by restrained eaters.

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## ASSESSING THE CONTRIBUTION OF SOCIAL FACTORS ON COGNITIVE PERFORMANCE IN OLDER ADULTS

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### Abstract

*Theoretical background.* Epidemiological research on aging provides evidence that social factors (i.e. large social network, good social support) could play a protective role against cognitive decline in old age. However, the link between social factors and specific cognitive skills was not thoroughly investigated to date given that the cognitive functioning was usually assessed by using general cognitive measures, such as Mini Mental State Examination (MMSE). *Objective.* Current study examined the link between different social factors and specific cognitive skills in a group of older adults. *Design.* We employed a cross-sectional design where the contribution of social factors on cognitive variables were assessed using regression models. *Methods.* We recruited sixty-six participants with a mean age of 61.47 years (SD=2.35; range 55-66), 65.2% women, with an average of 15.38 years of education and an MMSE score of 29.06. These individuals participated in an extensive neuropsychological assessment comprising of 13 tests measuring: working memory, semantic memory, abstraction, attentional flexibility, shifting, divided attention, perceptual speed, vocabulary, verbal fluency and spatial processing. In addition, questionnaires were used to measure both quantitative (i.e. size of social network, frequency of social interactions) as well as qualitative aspects (i.e. subjective perception of the quality of social interactions) of social life. We used hierarchical step-wise regression models to assess the contribution of social variables on cognitive performance controlling for age, education and depression levels. *Results.* The results indicated that both quantitative and qualitative facets of social life were associated with some specific cognitive skills in the long-term memory and executive processes domains. The link between subjective aspect of social life and these cognitive skills was stronger than that between objective measures and cognition. Also, the cognitive performance in complex cognitive tasks was enhanced when the objective and subjective factors were concordant (either high or both low), whereas for some executive functions measures (i.e. attentional flexibility), the performance was worse among individuals with large social networks, but with a poor quality of social interactions. *Conclusion.* Our study indicates that social factors are linked to specific cognitive skills in the memory and executive functions domains in older adults. In addition, our findings highlight the importance of the *perceived quality* of social interactions, rather than the size of social network or social support in determining the cognitive performance in this age group. The findings have implications for elucidating the social determinants of cognitive aging.

**Keywords:** Social factors, Cognitive skills, Aging.

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### 1. Introduction

Epidemiological research on aging provides evidence that social factors (i.e. large social network, good social support) could play a protective role against cognitive decline in old age. However, the link between social factors and specific cognitive skills was not thoroughly investigated to date given that the cognitive functioning was usually assessed by using general cognitive measures, such as Mini Mental State Examination (MMSE).

### 2. Objective

Current study examined the link between different social factors and specific cognitive skills in a group of older adults.



### 3. Design

We employed a cross-sectional design where the contribution of social factors on cognitive variables were assessed using regression models

### 4. Methods

We recruited sixty-six participants with a mean age of 61.47 years ( $SD=2.35$ ; range 55-66), 65.2% women, with an average of 15.38 years of education and an MMSE score of 29.06. These individuals participated in an extensive neuropsychological assessment comprising of 13 tests measuring: working memory, semantic memory, abstraction, attentional flexibility, shifting, divided attention, perceptual speed, vocabulary, verbal fluency and spatial processing. In addition, questionnaires were used to measure both quantitative (i.e. size of social network, frequency of social interactions) as well as qualitative aspects (i.e. subjective perception of the quality of social interactions) of social life. We used hierarchical step-wise regression models to assess the contribution of social variables on cognitive performance controlling for age, education and depression levels.

### 5. Results

The results indicated that both quantitative and qualitative facets of social life were associated with some specific cognitive skills in the long-term memory and executive processes domains. The link between subjective aspect of social life and these cognitive skills was stronger than that between objective measures and cognition. Also, the cognitive performance in complex cognitive tasks was enhanced when the objective and subjective factors were concordant (either high or both low), whereas for some executive functions measures (i.e. attentional flexibility), the performance was worse among individuals with large social networks, but with a poor quality of social interactions.

### 6. Conclusion

Our study indicates that social factors are linked to specific cognitive skills in the memory and executive functions domains in older adults. In addition, our findings highlight the importance of the *perceived quality* of social interactions, rather than the size of social network or social support in determining the cognitive performance in this age group. The findings have implications for elucidating the social determinants of cognitive aging.

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# EXAMING THE RELATIONSHIP BETWEEN HANDEDNESS AND LANGUAGE LATERALIZATION AS A FUNCTION OF DIFFERENT HANDEDNESS MEASUREMENTS

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## Abstract

Dichotic listening performance of consonant vowel stimuli was studied in free-recall condition in 547 healthy adults selected on the basis of their self-determining as left- and right-handers: 295 left-handers (184 women) and respectively 252 right-handers (182 women). The handedness of each participant additionally was assessed by means of six measurements: a hand preference questionnaire and a performance test, in both by applying three- and five-group classification schemes, respectively; writing hand and by combining two variables: writing hand and successfully switched left hand writing. On the basis of results from the different measurements of handedness the total sample was regrouped in the seven sets of handedness groups. In order to investigate the effects of different measurements of handedness on the pattern of the results reflecting the relationship between handedness and language lateralization, dichotic listening data of each of these sets of handedness groups were separately analyzed and compared. The results showed no differences in the magnitude of hemispheric asymmetry but statistically significant differences are observed in the direction of hemispheric asymmetry between handedness groups, independently of the manner of hand preference measurement.

**Keywords:** *Hemispheric asymmetry, Hand preference measurement.*

## 1. Introduction

Handedness is the most obvious form of behavioral asymmetry in human. The empirical research of its nature and relationship with language lateralization has a long history. Over the years impressive quantities of evidence for strong but not perfect correlation between handedness and language lateralization were accumulated (Hellige, 1993; Corballis, 2006; Bryden, Roy, McManus & Bulman-Fleming, 1997; Springer & Deutsch, 1990).

One of the primary difficulties with conducting handedness research is the lack of standard definition and universally accepted classification system of types and degrees of handedness as well as unified standards for handedness measurement and assessment (Kaploun & Abeare, 2010; Medland, Perelle, De Monte, & Ehrman, 2004). Researchers define handedness based on different theoretical assumptions: some define it as the hand preference while others define it as hand skill. There are different methods for assessment of hand preference: by asking "Are you right or left handed" or "Which hand do you write with?", with or without having in mind the presence of violent change of the writing hand, by asking which hand is preferred for a range of items, or asking the participant to demonstrate which hand is preferred for a range of activities (for review see Annett, 2004; Dragovic, & Hammond, 2007; Kaploun & Abeare, 2010).

The used handedness classifications systems are also so various: with two categories (left- and right-handedness or non-right- and right-handedness); with three categories (left-, right-, and mixed-handedness (ambidexterity); with five categories (strong and weak left-handedness, strong and weak right-handedness, and ambidexterity); with eight categories. Moreover, some researchers think that handedness should be measured along a scale of a continuum (for review see Annett, 2004; Corballis, 2006; Dragovic & Hammond, 2007; Kaploun & Abeare, 2010).

Fundamental methodological issues of handedness research are considered by many researchers as one of the key factors that complicate comparisons of results across studies (Bryden, Bruyn & Fletcher, 2005; Kaploun & Abeare, 2010; Medland, Perelle, De Monte & Ehrman, 2004).

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This fact, in some degree, delays or even impedes the extending and specifying our knowledge of handedness and its relationships with other psychological phenomena.

In this context, the present study aimed to compare the patterns of the results, reflecting the relationship between language lateralization assessed by dichotic listening task, and handedness assessed by seven different models, in order to determine the effects of using different handedness measurements on the assessment of pattern of this relationship.

## 2. Subjects

A total of 548 healthy adults (181 men and 367 women, range 17-73 years) voluntarily participated in the study. Their selection was made on the basis of an initial screening including the following obligatory conditions: (1) No history of neurological and psychiatric disorders, and hearing impairments and (2) Explicitly self-determination as left- or right-handers.

Each person was individually interviewed about current or previous neurological or psychiatric history and asked for their preferred hand. According to the data from this initial screening, 252 individuals report being right-handed (70 men and 182 women; Mean age=26.27±8.80) and 295 – left-handed (111 men and 184 women; Mean age=26.78±9.76).

## 3. Methods

### 3. 1. Assessment of handedness

Handedness of each of participants was six times re-assessed on the basis of the results from four different measurements of hand preference: (1) Hand used for writing (left, right or both); (2) Combining two variables: writing hand side and left hand writing switch; (3) Performance test (applying three-group classification scheme and five- group classification scheme, respectively); (4) Self-report questionnaire (three- and five- group classification scheme, respectively).

Performance test includes ten manual activities which usually are not target for purposeful education and most probably are not put to social pressure for switching of left hand preference: striking a match, throwing a ball, combing, taking an object, waving goodbye, zipping/unzipping, putting glasses in a spectacle, threading a needle, picking up a glass of water, unscrewing a lid. Each activity was scored as left= -1 and right= +1. Handedness scores range from -10 to +10. When three-group classification scheme was used, the participants who scored equal or greater than +6 were classified as right-handed, those who scored equal or greater than -6 were classified as left-handed, and the rest whose mean handedness score was between -4 and +4 were classified as mixed-handed. When five-group classification scheme was used, the participants who scored +10 or +8 were classified as strong right-handed, those who scored +6 or +4 were classified as weak right-handed, the participants who scored -10 or -8 were classified as strong left-handed, those who scored -6 or -4 were classified as weak left-handed, and the rest who scored between -2 and +2 were classified as mixed-handed.

Self-report questionnaire includes four items which most often are target for social pressure for switching of left hand preference: With which hand do you – eat with fork (no knife); eat with spoon; knife; cut with scissors. Responses were scored as left = -1, both = 0, right = +1. When three-group classification scheme was used, the participants who scored +4 or +3 were classified as right-handed, those who scored -4 or -3 were classified as left-handed, and the rest who scored between -2 and +2 were classified as mixed-handed. When five-group classification scheme was used, the participants who scored +4 were classified as strong right-handed, those who scored +3 or +2 were classified as weak right-handed, the participants who scored -4 were classified as strong left-handed, those who scored -3 or -2 were classified as weak left-handed, and the rest who scored between -1 and +1 were classified as mixed-handed.

Two additional questions were included in this questionnaire: Which hand do you write with? Were you experienced pressure in childhood to switch the writing hand from the preferred left to the right? Their answers served as criteria for two of the applied methods for handedness assessment. Handedness-switch subjects were identified as those who reported a preference for the

right hand for writing, but self- defined as left-handers. All of them also reported of having experienced pressure in childhood to switch the writing hand from the preferred left to the right.

On the basis of results from all these measurements of handedness the total sample was regrouped in seven sets of handedness groups (see Table 1). In order to investigate the effects of different measurements of handedness on the pattern of the results reflecting the relationship between handedness and language lateralization, dichotic listening data of each of these seven sets of handedness groups were separately analyzed and compared.

### 3.2. Dichotic listening test: Stimuli and Procedure

A personally modified version of the classic dichotic test with CV syllables (\b, d, g, p, t, k\ followed by a vowel \a\ ) was employed in this study. The modification consisted in monaurally presentation of instruction “attention”, i.e. only to one ear (in an appropriate random mode, but equal times to both ears), one second before playing each dichotic couple. This modification was made in order to reduce the influences of conscious or unconscious bias of attention towards any of the ears on the dichotic test performance.

The recall is made orally, in free condition, after playing each dichotic couple. The test was heard over twice, changing places of earphones during the second hearing. Dichotic listening performance of each participant was calculated on the basis of the scores from both hearing of the test. The output from the cassette-player was calibrated to 70 dB.

The used dichotic test was technically prepared in the sound-recording studio of the Bulgarian National Radio. It is a digital audio-compilation realized by CD-media of 700MB. The text is being read by a professional narrator.

### 3.3. Data analysis

Dichotic listening performance was compared in various handedness subgroups on the basis of the two main dimensions of hemispheric asymmetry: direction and magnitude. For that purpose, a dichotic listening laterality quotient (LQ) was calculated for each of participants. The sign of the LQ indicates the direction of interaural asymmetry: positive (+) for right-ear advantage (REA) i.e., left-hemispheric advantage (LHA), and negative (–) for left-ear advantage (LEA) i.e., right-hemispheric advantage (LHA). The value of the LQ indicates the magnitude of interaural asymmetry.

## 4. Results

Chi-square analysis was conducted to compare the distribution of the different types of hemispheric asymmetry for dichotic verbal perception (direction of hemispheric asymmetry) in the groups, comprising each of the five sets of handedness groups.

Using absolute dichotic listening LQ values as the dependent variable and handedness groups as experimental variables, an ANOVA was performed to compare the magnitude of hemispheric asymmetry for dichotic verbal perception of the handedness groups, including in each of the seven sets of handedness groups. An overview of the results of the ANOVA and Chi-square analysis are presented in Table 1.

**Table 1:** Summary of chi-square test and ANOVA statistical outcomes evaluating Differences in the Magnitude and the Direction of Interaural Asymmetry between the handedness groups, including in the investigated seven sets of handedness groups

Methods of handedness measurements	Handedness groups	N	Magnitude of IA Mean absolute value of LQ (SD)	F (Sig.)	Direction of IA (Within-group Distribution, in %)			Chi square /df/	p
					REA	NEA	LEA		
Self-determination	Right-handers	252	10.27 (10.12)	.598 (.440)	67.9	2.8	29.4	$\chi^2_{(2)}=34.312$	.000
	Left-handers	295	10.95 (10.35)		43.7	9.2	47.1		
Hand used for writing	Right hand writers	326	10.26 (10.00)	1.785 (.169)	60.7	3.4	35.9	$\chi^2_{(4)}=29.381$	.000
	Two hands writers	8	5.61 (5.78)		50.0	37.5	12.5		
	Left hand writers	213	11.40 (10.53)		46.0	9.4	44.6		
Combining writing hand	Right hand writers	252	10.27 (10.12)	1.188 (.313)	67.9	2.8	29.4		
	Two hands writers	8	5.61 (5.78)		50.0	37.5	12.5		

and left hand writing switch	Left hand writers	213	11.40 (10.53)		46.0	9.4	44.6	$\chi^2_{(6)}=52.417$	.000
	Converted left-hand writers	74	10.22 (10.09)		36.5	5.4	58.1		
Self-report questionnaire (three-group classification)	Right-handers	242	10.41 (10.19)	1.580 (.207)	68.2	2.5	29.3	$\chi^2_{(4)}=31.238$	.000
	Mixed-handers	138	9.64 (10.00)		46.4	8.7	44.9		
	Left-handers	167	11.72 (10.68)		44.3	9.0	46.7		
Performance test (three-group classification)	Right-handers	217	10.35 (10.41)	.160 (.812)	70.5	2.3	27.2	$\chi^2_{(4)}=36.421$	.000
	Mixed-handers	126	10.61 (10.95)		45.3	7.9	46.8		
	Left-handers	204	10.94 (9.90)		42.7	8.8	48.5		
Self-report questionnaire (five-group classification)	Strong right-handers	239	10.62 (10.31)	.803 (.523)	68.2	2.5	29.3	$\chi^2_{(8)}=36.026$	.000
	Weak right-handers	20	9.27 (9.14)		65.0	0.0	35.0		
	Mixed-handers	56	9.48 (9.61)		46.4	9.0	44.6		
	Weak left-handers	65	9.87 (10.68)		40.0	10.8	49.2		
	Strong left-handers	167	11.72 (10.68)		44.3	9.0	46.7		
Performance test (five-group classification)	Strong right-handers	180	9.93 (10.50)	.684 (.603)	70.6	2.2	27.2	$\chi^2_{(8)}=41.862$	.000
	Weak right-handers	71	11.24 (9.86)		64.8	4.2	31.0		
	Mixed-handers	62	9.29 (9.86)		41.9	8.1	50.0		
	Weak left-handers	92	11.52 (12.03)		42.4	13.0	44.6		
	Strong left-handers	142	11.01 (9.33)		44.4	6.3	49.3		

IA – Interaural Asymmetry; LQ – Laterality Quotient

The data analysis revealed the same pattern of differences between the groups with different hand preference in all sets of handedness groups: no differences in the magnitude of interaural asymmetry ( $p>.05$ ), but statistically significant differences in the direction of interaural asymmetry ( $p<.000$ ).

In line with the finding from previous studies, the majority of right-handers (including their division of strong- and weak right-handers) showed REA regardless of handedness measurement method used, ranging from 60.7% in the set of handedness groups classified according to the writing hand to 70.6% in the set of handedness groups classified according to the performance test scores applying the five-group classification scheme. In contrast, the majority of the left-handers in all sets of handedness groups (including their division of strong- and weak left-handers) showed a LEA or a NEA. Subsequently, less than a half of left-handers' groups demonstrated REA. It is very important to point out the small and insignificant differences in the results both of strong- and weak right-handers, as well as in the results of strong- and weak left-handers. Results of all the rest handedness groups – mixed-handers, both hand writers and converted left-hand writers, were dissimilar to that of right-handers' groups, but in different extent similar to that of left-handers' groups. Mixed-handers' groups showed a distribution of participants according to direction of interaural asymmetry just like to that of left-handers' groups. Results of both hand writers' group indicated significant highest proportion of participants showed NEA (37.5%) in comparison with all groups. Results of converted left-handers' group indicated significant highest proportion of participants showed LEA (58.1%) in comparison with all groups.

With regard to the magnitude of interaural asymmetry, the obtained results showed the same mean ear difference in all handedness groups excepting the group of both hand writers: whereas the mean absolute LQ values of all handedness groups ranged from 9.29 ( $\pm 9.86$ ) to 11.72 ( $\pm 10.68$ ), the one of both hand writers' group was 5.61 ( $\pm 5.78$ ), i.e., twice lower than the others. Probably, because of the too small number of this group, the group differences were not statistically significant ( $p>.05$ ).

## 5. Discussion

The principal objective of the present study was to investigate whether or not the five most popular models of hand preference measurements could be used reliably alike for investigating the relationship between handedness and language lateralization using dichotic listening task.

The summarized presentation of the obtained results showed that irrespective of applied method for handedness measurement, the handedness groups did not differ in the magnitude of hemispheric asymmetry for language processing ( $p>.05$ ), but statistically significant differed in the direction of hemispheric asymmetry ( $p<.000$ ). The predominant majority of right-handers' groups showed REA which indicates left-hemispheric dominance in language processing, while the majority of non-right-handers' groups (left-handers, mixed-handers, both hand writers and

converted left-hand writers) showed a LEA or a NEA which respectively indicates right-hemispheric dominance or lack of dominance in language processing.

Some main conclusions may be drawn from the analysis of these results. Firstly, the present data provide clear evidence for handedness related differences in the functional organization of the brain for language (in particular for language perception) and indicate that these variations refer to the direction of hemispheric asymmetry, but not to her magnitude. Well documented conception, that a significantly greater proportion of right-handers, compared with left-handers, have their language functions lateralized in the left hemisphere (Beaumont, 1983; Corballis, 2006; Hellige, 1993; Springer & Deutsch, 1990), is strongly confirmed.

Secondly, the marked dissimilarities in the patterns of the results of right-handers' groups and all the rest non-right-handers' groups put together with the high similarities in the patterns of the results of the latter ones, support the conceptualization of the dichotomy "right- / left-handers (or non-right-handers)" rather than the trihotomy "right- / mixed- / left-handers", but hint at differentiating of some subsamples within the left-handers' sample. According to the present findings, the combination of two variables: writing hand side and left hand writing switch, is the most sensitive indicator for this differentiation at the group level.

Thirdly, the lack of differences in the patterns of the results between strong and weak right-handers on the one hand, and between strong left-handers, weak left-handers and ambidexters on the other hand, indicates that degree of left- and right- handedness is not a significant variable for handedness group differentiations on language lateralization for dichotic perception.

The above discussion leads, logically, to the next conclusion that the assessment of handedness by combining the variables "writing hand side" and "left hand writing switch" emerges as the most sensitive method to the differences in language lateralization between handedness groups. In contrast, the method of writing hand (left, right or both) is outlined as the most inaccurate in handedness group differentiation by comparison with all applied methods. The rest methods: self-determination, self-report questionnaire and performance test, seem to be equally sensitive to handedness group divergence on language lateralization, because the individuals were divided into similar language lateralization groups when using them as classifying variables. Consequently, the present results permit the general conclusion that when the experiments are made at the group level, the pattern of the relationship between handedness and language dominance does not change in substantial way if different measurements of handedness are used.

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POSTERS



## SELF-REGULATION SKILLS, DEPRESSIVE SYMPTOMS AND PROBLEMATIC INTERNET USE AMONG UNIVERSITY STUDENTS

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### Abstract

In the framework of Bandura's theory, problematic internet behaviour is the product of deficient self-regulatory processes. It has previously been confirmed by several studies that psychosocial disorders like stress, anxiety or depression make people inclined to the development of maladaptive behaviors that eventually lead to negative outcomes. The aim of this study was to investigate the relationship between self-regulation skills, depressive symptoms and problematic internet use (PIU) among university students. Previous findings related to self-regulation skills with regards to PIU among university students have not been consistent. A cross-sectional design was employed to assess our objective. First year university students from Slovakia (n=814) completed the Short Self-Regulation Questionnaire, Modified Beck Depression Inventory and Generalized Problematic Internet Use Scale 2. Linear regression was performed to assess the relationship between self-regulation, depressive symptoms and problematic internet use. No gender difference was found in the association between self-regulation and PIU and between depressive symptoms and PIU. Higher levels of depressive symptoms were positively associated with PIU ( $p < 0.001$ ). Self-regulation was negatively associated with PIU ( $p < 0.001$ ). Gender was not associated with PIU. It was confirmed that problems with self-regulation skills as well as depressive symptoms might lead to problematic internet use.

**Keywords:** *Self-regulation, Problematic internet use, Depressive symptoms, University students.*

### 1. Introduction

Potentially, many intrinsically rewarding activities can become problematic. A behavior such as internet usage is problematic if the activities that one can access through the internet become compulsive, if they interfere with normal activities of daily living (work and family), or if the person can no longer control his own use. Problematic internet behaviours are indicative of problems in self-regulation (Gailliot & Baumeister, 2007).

It has previously been confirmed by several studies that psychosocial disorders like stress, anxiety or depression make people inclined to the development of maladaptive behaviors that eventually lead to negative outcomes. Supportive data can be found in the studies of lonely and depressed individuals who are more likely to engage in synchronous functions of the internet (Caplan, 2003). University students are a group that may be particularly vulnerable to addiction, as they have largely unfettered, unsupervised access to the Internet and independent control of their time. Estimates of problematic usage in university students vary between 6% and 19% internationally (Niemz, Griffiths, & Banyard, 2005; Zhu & Wu, 2004).

### 2. Objectives

A sample of Slovak university students was used to evaluate: (a) the relationship between self-regulation skills, depressive symptoms and problematic internet use (PIU) among university students; (b) whether gender moderates the relationship between problematic internet use and self-regulation and between problematic internet use and depression.

### 3. Methods

The study is a part of the SLiCE study (Student life cohort in Europe) (<http://www.slice-study.eu/>) and was conducted in May 2008. The questionnaire was approved by the University of PJ Safarik, the University of Veterinary Medicine and Pharmacy in Kosice and the Technical University of Kosice Institutional Review Boards.

#### 3.1. Sample

A self-administered questionnaire was distributed to first-year students during regular classes of courses, which were selected in order to obtain about one third of the sample from each of the following faculties; the natural sciences, the social sciences, and business and law. The final sample included 817 students, 74.5% were females and mean age was 19.6.

#### 3.2. Measures

##### 3.2.1. Primary outcome measures

The primary outcome variable was problematic internet use and the Generalized Problematic Internet Use Scale was used (Caplan, 2010). Participants rated their agreement with each item on a scale ranging from 1 (strongly disagree) to 5 (strongly agree).

##### 3.2.2. Covariates

Demographic data was collected, including age and gender, from participating students. To assess the self-regulation skills the Short Self-Regulation Questionnaire was used (SSRQ; Carey, Neal, & Collins, 2004). Items were scored on a 1–5 scale (strongly disagree–strongly agree), and can be summed to create a total score. Depressive symptoms were measured using a modified version of the Beck Depression Inventory (M-BDI) (Schmitt, Beckmann, Dusi, Maes, Schiller, & Schonaue, 2003). Students were asked to describe how often they experienced 20 depressive feelings during the past few days with a 6-point scale responses (from 0= "never" to 5= "almost always"). The M-BDI score is obtained by summing up answers to individual questions.

#### 3.3. Statistical analyses

Linear regression was performed to assess the relationship between self-regulation, depressive symptoms and problematic internet use. Analyses were conducted using SPSS 16.

### 4. Findings

Linear regression was employed to test the relationships between PIU and predictors (self-regulation, depressive symptoms), after considering the contribution of established demographic variables (gender, age). Depressive symptoms accounted for the largest amount of variance in PIU (11.0%), followed by self-regulation skills (8.5%) and demographic variables (0.5%). Two demographic variables, gender and age were not related to PIU ( $\beta = -2.598$ ,  $p = .167$ ;  $\beta = -.265$ ,  $p = .562$ , respectively). Among predictors, self-regulation ( $\beta = -.247$ ,  $p < .001$ ) contributed negatively to the model predicting PIU, whereas depressive symptoms ( $\beta = .386$ ,  $p < .001$ ) contributed positively. No gender difference was found in the association between self-regulation and PIU ( $\beta = -.109$ ,  $p = .440$ ) nor between depressive symptoms and PIU ( $\beta = -.331$ ,  $p = .051$ ).

### 5. Conclusion

Firstly, it was corroborated that general self-regulation capacity may be predictive of problematic internet use. Studies from different populations and cultures support the relevance of generalized self-regulation skills to different problem behaviors. Secondly, the study confirmed an association between depressive symptoms and problematic internet use that has been also found in international samples (e.g. Cao & Su, 2007). As depression has also been associated with other behavioral addictions, this association lends further validity to the phenomenon of Internet addiction. Thirdly, the results are not consistent with several studies

that have showed gender differences in internet use. This may indicate that gender differences in problematic internet use are narrowing down in specific university student samples. There are several limitations to this study that should be mentioned. The data are entirely cross-section, correlational and inferences about causal directions of the association between depressive symptoms and problematic internet use are not warranted. However, others have found similar associations using longitudinal study designs (Ko, Yen, Chen, Yeh, & Yen, 2009). In line with Christakis and his colleagues (2011) it can be suggested that depression and problematic internet use relationship probably work in both ways, in a mutually enhancing cycle wherein depression begets social isolation, which begets problematic Internet usage and thus increases both social isolation and depression. The sample comprised of first-year students. Thus, any generalisations of the findings for all students should be undertaken cautiously. Future research should address these limitations.

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## ASSESSMENT OF THE BINGE DRINKING CONSEQUENCES IN SPANISH YOUTH

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### Abstract

Among the European Youth an intake of high amount of alcohol during two-three hours, associated with leisure, with periods of non-consumption and frequent loss of control has been established. Besides, alcohol is the most dangerous drug if one takes into account the harm it can cause to the consumers and to others. Even so, just one in ten young people experiencing such problems receives treatment (Clark, Horton, Dennis and Babor, 2002). Given such a situation, one of the most urgent needs is the availability of screening instruments for early detection of the problems presented by youngsters who abuse alcohol, so as to facilitate access to early intervention programs. Outside our country there are standardized instruments, such as the *YAACQ* or the *RAPI* which provide clinically relevant information. The main goal of this study was to present the first results from the *Instrumento de Evaluación de Consumo Intensivo* (IECI) developed and validated in Spanish youth for identifying problematic patterns of alcohol in binge drinking (BD). IECI was applied to 1697 students (aged 14-26) student drinkers (BD: 84.4% female/73.9% male). The results confirm that the consumption doubles the set limit (60g or more men/40g or more women), regardless of the age. There are also two indicators of risk: intake frequency (4-6 times/month) and the onset of age (BD starts before). Among the consequences recognized by youth stand out: the physical effects (hangover, fainting), interpersonal social implications (say or act in a embarrassing way), unlikely to abstain (drinking more than expected and not realize that they must stop) and some tolerance.

**Keywords:** *Alcohol, Youths, Assessment, Consequences.*

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### 1. Introduction

For decades there has been a homogenization, both in Europe and in Latin American countries, in the pattern of alcohol consumption by youngsters. This is characterized by an early onset in the consumption of high quantities, it is carried out in a short space of time, it is associated to leisure, it has a loss of control with abstinence periods between the drinking episodes (Anderson & Baumberg, 2006; Cortés, Espejo & Giménez, 2008; Cortés, Espejo, Giménez, Luque, Gómez & Motos, 2011). Spanish experts in addictions have called “Intensive Consumption of Alcohol” or “Binge Drinking” (BD), defining it as the intake of 60g or more by men and 40g or more by women, carried out during an interval of 2-3 hours, and in which the alcohol in blood reaches a level of 0,8g/l (MSC, 2008).

Several researchers manifested that the consequences of this pattern of consumption are so important, or even more, than those derived by a pattern of regular consumption. Out of these stand out those produced in the consumer (i.e., hangover, poor performance in duties that implied memory or decision making, neglect of responsibilities, risky sexual behaviour, consumption of other substances...) as well as those consequences on third parties (i.e., traffic accidents, fearless behaviour when driving, quarrels, fights, sexual abuse, damage to property...) (Chartier, Hesselbrock, & Hesselbrock, 2011; Hingson, Zha & Weitzman, 2009; Nutt, King, & Phillips, 2010).

Most instruments to measure the consequences derived by BD collect more aspects related to a dependence of a non-intensive regular consumption (Kahler & Strong, 2006). Among the instruments that contemplate less severe problems stand out *RAPI -Rutgers Alcohol Problem Index-* (White & Labouvie, 1989), *CAPS -College Alcohol Problems Scale-* (Maddock, Laforge, Rossi & O'Hare, 2001) y *YAACQ -Young Adult Alcohol Consequences*

*Questionnaire*- (Read, Kahler, Strong & Colder, 2006). But none of them is sufficient, when focusing on partial aspects, more characteristic of an intermittent intake and continuous in time –different to binge drinking and with an evolution of a few years– plus the fact that these instruments are not adapted to Spanish population.

Given such a situation, one of the most urgent need is the availability of screening instruments for early detection of the problems presented by BD youngsters.

## 2. Objectives

The main goal of this study was to present the adequation of the *Instrumento de Evaluación del Consumo Intensivo* (IECI) (Cortés, Giménez, Espejo, Tomás y Motos, 2011) to give account of the consequences generated by this pattern of consumption. Moreover, the main consequences are underlined and those less representative by this population of youngsters, facilitating giving them some orientation and a possible clinical intervention.

## 3. Methods

IECI is the result of a research project sponsored by the Drugs National Plan (Spain, 2009-2011). It is made up of three parts: Pattern of consumption –quantity of alcohol, time of intake, regularity, and onset age–; Cognitive Determinants of this behaviour –motives, expectations and anticipated effects–; and 30 Consequences over professional aspects; physical symptoms, self-perception; control on consumption; social-interpersonal problems; risky behaviors, tolerance; symptoms of abstinence and consumption of other substances.

To prove that IECI is reliable and valid detecting consequences in this population, it has been applied an adjustment to the data to a Item Respond Theory (IRT) of two parameters, using for that the XCALIBRE programme. It is an interactive process using item fit statistics, item severities, item discrimination parameters, residual models, and an analysis of differential items according to gender was used to match the items with those that best fit a two-parameters model.

A cluster analysis has also been carried out in two stages to determine the BD groups. Later on, it was assessed through the respective square chi tests if there were differences in the consequences derived from the consumption in different types of consumer.

## 4. Discussion

The items from the IECI shown standardized residuals with values within the acceptable range. Thus, it can be concluded that the replies from the subjects to the items adjusted adequately to the “2 parameters model”. Besides the estimation of the parameters, both in severity and in discrimination, were exact, as the values of estimation of the typical errors (the lesser the value, the greater the precision of the estimation). On the other hand, the values to the homogenization levels of the items were satisfactory, allowing to state that these are related to the feature measured by the scale. Finally, the reliability of the scale was satisfactory ( $KR-32 = 0.85$ ).

The estimations of severity of items (parameter  $b$ ) oscilated between -1.52 and 2.59 (mean=1.05; sd=1.08), indicating that the items covered a wide range of severity in problems derived from alcohol consumption, with a greater representation of the greater severity problems (which is desirable taking into account the aim of using the instrument for clinical assessment). More concretely, 53.3% of items presented values of high severity ( $b > +1$ ), 43.3% presented medium severity values ( $-1 < b < +1$ ), and 3.3% of items showed values of low severity ( $b < -1$ ).

A high level of discrimination implies that small changes at the trait level entail big changes in the probability of replying affirmatively to the item. For the items of the analyzed scale, the estimations of discrimination of items oscilated between 0.61 and 1.16 (mean = 0.82; sd = 0.13). In a more detailed analysis, 2 items (6.7%) presented low values of discrimination

( $0.31 < \text{to} < 0.64$ ), while the other 28 items (93.3%) presented medium levels of discrimination ( $0.65 < \text{to} < 1.34$ ).

Finally, an analysis of the test's information curve and the test's characteristic curve led to the conclusion that the scale is extremely useful and informational for individuals with medium to high levels in that trait.

#### 4. Conclusions

The cluster offers the best solution differentiating four groups in which the variables that were considered –gender, group and consumed grams– contribute significantly to their formation ( $p < .01$ ): younger male (126.7g) // older male (126g) // younger woman (95,7g) // older woman (90,6g).

Among the most valued consequences, regardless of gender, appear: the acute effects of intoxication (hangover, fainting), social and interpersonal problems (to say or to do embarrassing things while drunk), the reduction of control (drinking more than it was planned and not realizing that it is best to stop the consumption) and certain tolerance to alcohol (consuming more each time to experience the same effects).

The consequences with less representation are those related to symptoms characteristic of alcohol dependence and the consumption of other substances.

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# ANTICIPATORY COPING SKILLS INVENTORY FOR ALCOHOL AND DRUGS ADDICTION: VALIDITY EVIDENCES RELATED TO INTERNAL STRUCTURE

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## Abstract

This study aimed to investigate the internal structure of Anticipatory Coping Skills Inventory for the maintenance of abstinence from alcohol and drugs, by exploratory factorial analyses. The sample consisted of 422 people in treatment of alcohol or crack cocaine addiction. Preliminary analysis (KMO index = 0.88; Bartlett's Test of Sphericity  $\chi^2 = 9032.1$ ;  $p < 0.001$ ) were adequate. Maximum Likelihood method with Promax rotation and suppression of variables with factor loadings below 0.40 produced an adequate and reliable three factors structure, with 30 items (overall Cronbach's alpha = 0.88; total variance explained = 43.02%). The first factor, named "Assertiveness and planning for high-risk situations for substance use", comprises 14 items (alpha = 0.89), related mainly to refusal skills for offering substances; the second, "Expression of positive feelings for abstinence" (alpha = 0.83) concerns about skills for expression feelings that contribute to less stressful social situations; the third factor "Emotional self-control of adverse situations" (alpha=0.77) involves mainly anger management and had eight items. Although a factorial structure of the construct anticipatory coping skills was not reported in previous studies, the content of the factors is consistent with literature that suggest behaviors for relapse prevention. This structure may improve assessment for significant and focused interventions and should be tested for other evidences of validity and reliability.

**Keywords:** *Coping skills, Relapse prevention, Abstinence, Alcohol, Drugs.*

## 1. Introduction

Alcohol and crack cocaine dependences are the top two causes of addiction treatment in Brazil (Carlini, 2006; Kessler & Pechansky, 2008). In order to promote and to maintain abstinence it is important to teach addicts to discriminate stress risk situations to substance use as well as alternative behaviors which can be used to avoid a lapse or relapse (Marlatt & Donovan, 2009). Anticipatory coping skills are essential in this process, once a high repertoire of this skills increases the likelihood that thoughts and behaviors be directed to set up a less susceptible environment for stressful situations or for its quick and effective solution, before it can cause craving (Donovan, 2009). Most of the coping skills are specifically social skills, which can contribute to healthy and productive relationships with others (Del Prette & Del Prette, 2010).

Several studies have reported associations between coping skills and better results related to alcohol or other drugs use (e.g. Forys, McKellar & Moos, 2007; Gossop, Stewart, Browne & Marsden, 2002; Rohsenow, Monti & Martin, 2005). However, empirical evidences on intrinsic aspects of this relationship have not been sufficiently sustainable. One of the reasons for that is the scarcity of reliable measurement instruments to assess coping skills which are specific to addiction situations. No instrument, developed or adapted, with evidences of validity and reliability, was found in the Latin American context.

## 2. Objectives

Considering that anticipatory coping skills are the first ones in the timeline of relapse prevention, this study aimed to investigate the internal structure of Anticipatory Coping Skills Inventory for the maintenance of abstinence from alcohol and other drugs.

### 3. Methods

#### 3.1. Participants

The final sample consisted of 422 people in treatment for alcohol or crack cocaine addiction, from public health services aimed to this type of patients. Out of these, 58% claim to be under treatment for crack cocaine addiction and 42% under treatment for alcoholism. The mean age of the sample group was of 36.6 years old, 85.5% were men and 56% had only primary school education. The average length of abstinence was 3.57 months.

#### 3.2. Measure

Anticipatory Coping Skills Inventory-Alcohol and Other Drugs (IDHEA-A/D, as in Portuguese), by Sá and Del Prette (2012). It has 67 items and two forms, one for alcohol and another one for other drugs addicts. The assessed behaviors are identical in both, thus differing only in the alcohol or crack reference along the items. The response scale comprises four points, concerning the frequency of the described behavior.

#### 3.3. Procedures

The instrument was applied at the treatment setting of the participant. For data analysis, the computer software PASW Statistics 18 was used. The sample was prepared by verifying missing values, outliers and basic assumptions for performing multivariate techniques, such as normality, linearity, homocedasticity and no multicollinearity. Also, measures of sampling adequacy were observed for performing Exploratory Factor Analysis. Scree plot and parallel analysis were used to accurately determine the maximum number of possible factors to be obtained. With these results, extraction was performed using Maximum Likelihood method, with Promax rotation, requesting the maximum number of factors indicated by the parallel analysis and deleting items with factor loadings less than 0.40.

### 4. Results

Preliminary analyses (KMO index = 0.88, Bartlett's test of sphericity  $\chi^2 = 9032.1$ ,  $p < 0.001$ ) were adequate. The initial suggestion indicated five factors. However, a better fit was obtained with three factors, with a simpler, more reliable and interpretable structure. It consisted of 30 items, with overall Cronbach's alpha of 0.88 and total variance explained of 43.02%. The first factor, named "Assertiveness and planning for high-risk situations for substance use" comprises 14 items (alpha = 0.89; variance explained = 23.43%), and it is related mainly to refusal skills for offered substances. The second, "Expression of positive feelings for abstinence" (alpha=0.83; variance explained = 12.08%) has eight items and concerns skills to express affection, which can contribute to less stressful social situations. Third factor, "Emotional self-control in adverse situations" involves mainly anger management. It also has eight items, Cronbach's alpha of 0.77 and it has an explained variance of 7.52%. Factors are all correlated.

### 5. Discussion and Conclusions

In the process of maintaining abstinence, being assertive in an environment that traditionally has been encouraging substance use seems to be the most important class of skills. For addicts in recovery, adequate performance of these skills could decrease the chances of cravings generated by choosing a passive or aggressive behavior when invited to consume the substance.

Skills assessed by the second factor are behaviors with high probability to create a less stressful and more hospitable environment. Considering that the time range of addiction is often marked by relationship problems, in the period of abstinence it is important to express positive emotions, even in aversive situations. This ability may be interpreted as the maladaptive behaviors are being replaced by more adaptive others which are connected to abstinence. For family or any significant person, the ability to express emotions is an evidence of behavior

change, which increases the probability of establishing an environment with better relationships and social support.

The third factor is mainly composed of anger management skills. Self-control of one's emotions is necessary to act assertively and to properly problem solving in the risk situations. When angry, one needs to properly address his/her feelings so that to avoid behavioral consequences such as aggression, impulsive actions, passivity and passive-aggressive behavior (Monti, Kadden, Cooney, Rohsenow, & Abrams, 2005). Therefore, it is not the feeling of anger itself, but its consequences that can increase the likelihood of consuming substances, by creating an environment of ineffective communication, emotional distance and hostility.

Results from this study brought strong evidences of IDHEA-A/D validity based on its suitability internal structure and reliability. Future research should aim for additional evidences of validity and reliability. After that, the inventory can be used in the clinical evaluation as well as efficacy outcomes of interventions. For now, its use is recommended in other studies focused on this subject.

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## USEFULNESS OF THE "STANDARD DRINK UNIT" IN THE EVALUATION OF CONSUMPTION ON FEMALE COLLEGE STUDENTS

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### Abstract

The "Standard Drink Unit" (SDU) developed by WHO, despite its proven value and its widespread use (in clinical, prevention, research ...) is not exempt from criticism and problems. This refers, for instance, to the enormous variability of pure alcohol grams, which is equivalent to an SDU in different countries, periods, cultures, regions... or the assumption that consumption is always done in "standard recipients". Regarding the latter, it is important to point out the new youth drinking patterns performed by Spanish youth as a part of the phenomenon called "botellón". This practice involves, among other things, the purchase of alcoholic drinks and beverage containers at retail for its consumption, which happens in public places after serving each drink themselves. In this paper we analyze the adequacy of this system to measure the consumption in university women. We interviewed 168 volunteers, students of Psychology at the University of Valencia (mean age: 22.5 years). We registered their drinking patterns; they prepared and served five different drinks using original bottles and recipients (2 fermented and 3 distilled). Actual grams were estimated and compared to those based on SDUs. The results are consistent with previous research, in which SDUs underestimate in 65.7% of cases the grams of alcohol consumed, more evidently among fermented drinks (79.15%). Besides, the girls who consumed higher levels of alcohol were the girls that served themselves more alcohol in each drink. The results question the usefulness of SDUs to work with these new youth patterns of intake and suggest a review and adjustment to the SDUs.

**Keywords:** *Alcohol, SDU, Botellón, Measurement, Young Girls.*

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### 1. Introduction

The knowledge of the exact quantity of alcohol consumed constitutes a very useful tool for the consumers (as it allows them to estimate, know and, thus, make decisions over their consumption), but it is also useful for the health authorities (as it allows them to carry out epidemiologic studies, as well as to define certain prevention interventions, like the guides for the consumers on risk) and even for catering business people involved in programs for responsible drinking (control of the alcohol provided to each consumer...) -Campbell, Ashley, Carruthers, Lacourciere & McKay, 1999; Rodríguez-Martos, Gual & Llopis, 1999; Single & Leino, 1998-.

Besides, such a quick, objective and useful tool to quantify the alcohol consumed can also be used in fields for clinical intervention, research, and so on. With this aim, in 1960 the WHO developed the concept of Standard Drink Unit (SDU), defined as "the volume of alcohol that contains approximately the same quantity (in grams) as ethanol, no matter the type of alcoholic drink" (WHO, 1994). However, despite the usefulness of this measuring system, that is commonly a referent in scientific literature, it is a very problematic concept nowadays and it is not exempt from criticisms and problems.

Time and again, one of the main problems is the lack of consensus in the value attributed to the SDU in different countries. This can be due to the fact that alcoholic drinks have different degrees of alcohol in containers of different size (ICAP, 1998, 2003; Lemmens, 1994; NIAAA, 2009), and this leads to a consumption of certain grams of alcohol, depending on how and where in the world they take place.

The fact that SDUs in different countries can oscillate in more than 10 grams makes it difficult to a large extent to carry out comparisons and transcultural studies. This can also make it easy to incur in serious misunderstandings as for the consumed quantities, if there are no specifications of the exact value of the SDU they are referring to.

Moreover, it is important to take into account that the estimation of grams from the SDUs is carried out presuming that the consumption will take place in “standard” recipients (Graves & Kaskutas, 2002; Devos-Comby & Lange, 2008). However, this is done so despite the fact that the ones who serve the drinks generally do not use the same recipients, varying also the quantities of alcohol that include in each consumption (Banwell, 1999; Gill & Donaghy, 2004).

In the last decades, it is even greater the number of young people who decide to drink alcohol at home (Lader & Meltzer, 2002; Wilson, 1981) or in the context of some universities – students flats, rooms in the Residence halls, etc. – (Gill, et al., 2007) as well as in the street, as a part of the practice of “botellón” (Cortés, 2005, 2006). More concretely, this practice involves, among other aspects, purchasing drinks (alcoholic drinks and soft drinks) and recipients in retail shops for their consumption in public spaces, after the drinks are prepared and served by themselves. This variation in the way of drinking presents a number of doubts in the usefulness of the SDUs as a method to register the real quantity of alcohol consumed.

## 2. Objectives

The present work compares the quantity of grams of alcohol in drinks prepared and served by some university students when it is them who prepare and serve their own drinks, to the estimated quantity of grams using the Spanish SDUs as a referent (10 grams per fermented drink and 20 grs per distilled drink). This would allow an assessment on the adequacy/adjustment of this measuring system (SDUs) and their usefulness to give account of the real consumption by youngsters. Moreover, this would allow the establishment of a recommended value for the Spanish SDUs that reflects more accurately the pattern of consumption by youngsters, characterized by an intensive intake.

## 3. Design

The sample was made up by 168 women, students of the Faculty of Psychology at the University of Valencia, under 26 years old, all of them students of the 5th year, enrolled in the optional subject, “Motivation and Learning in Addiction Processes”.

The data collection took place in two stages. Initially, in the classroom they filled in a questionnaire designed ad-hoc: socio-demographic data, history of consumption and current pattern in the consumption of alcohol. In the second stage (in the laboratory) they were asked to prepare their own drinks, five consumptions of different drinks: a beer, a “sangria” (mixture of red wine and soft drink), a combined drink made of vodka, a “mojito” (combined drink made of rum) and a “shot” of “cazalla” (dry anise). For that, the original bottles were used as well as the characteristic glasses where they serve these types of drinks. After measuring objectively the quantity of alcohol drank, there was an estimation of the grams consumed for each person, and then the results were compared to those assigned to them by the use of the SDUs as referents.

## 4. Results

From the self report on consumption, it was estimated through the use of SDUs, the grams of alcohol consumed in a night. The mean of consumed grams was 88.74g.

With respect to the difference between the measured quantity of alcohol through the SDUs and that obtained following an objective procedure, the results coincide with those of previous research (Devos-Comby & Lange, 2008; Gill & Donaghy, 2004; Giménez & cols., 2011; Kaskutas & Graves, 2000; Lemmens, 1994; Wilson, 1981) observing that the use of SDU's underestimates in a 65.7% of cases the real quantity of consumed alcohol.

Depending on the type of drink, the greatest underestimation occurs in relation to “sangria's”, where 98.2% of consumptions had a real intake above that estimated by SDU's and a mean difference in an underestimation of 15.88g. This difference favoring real grams also takes place with the other fermented drink; that is, beer, in which 63.3% of cases would have been underestimated if SDUs had been used. In the case of “mojitos”, the underestimation would be important too, where 80.6% of consumptions would be above the SDU's estimation,

and a mean difference estimated of 15.93g. In the case of “vodka”, the percentage of underestimated services would be of 64.8% and a mean of this error would be of 13.15g. The only drink out the analyzed ones that eludes this effect is “Cazalla”. In this, in contrast with all the rest, the SDU’s measure would produce an overestimation of the consumption in a 69.1% of cases, although the difference of this mean would not be more than 8g.

It is also important to point out the relationship observed between the consumption level and the level of alcohol served in each consumption, given that the greater the grams consumed, the greater the real quantity of alcohol included in the preparation of drinks for each consumption.

## 5. Conclusions

These results question the usefulness of the current SDUs to reflect the real consumption of female youngsters, which includes a greater quantity of alcohol per intake than that considered in a standard fashion. Because of this, it would be necessary to revise and adjust the SDUs to use for this sector of population, paying attention to the types of alcoholic drinks (fermented and distilled) given the observed underestimation of grams consumed by them.

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## COMPUTERISED COGNITIVE BEHAVIOURAL THERAPY (CCBT): ARE WE READY FOR IT?

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### Abstract

Studies suggest CCBT is an effective self-help guided therapy for mild to moderate anxiety and depression. Last year the newspaper, The Scotsman, reported that Computerised Cognitive Behavioural Therapy (CCBT) will be offered to patients across Scotland as a solution to the long waiting lists for face-to-face therapy and to save costs. However, the low adherence to CCBT remains a concern. This raises questions as to whether usability has an influence on the usefulness of CCBT or if there are other factors that may have hindered engagement with this technology-mediated therapy. Usability is defined in the field of Human-Computer Interaction as effectiveness, efficiency, and satisfaction in the context of use. The present study aimed to explore the views of practitioners concerning the usability and acceptance of CCBT services. In-depth semi-structured interviews were carried out with service providers at different National Health Service (NHS) organizations who were involved in both decision-making about the availability of CCBT and providing support concerning its use. Interview data were analyzed using Grounded Theory Methods. The study's preliminary results suggest that usability is not the only factor influencing the uptake of CCBT. There are barriers and challenges which may have compromised the role of CCBT, such as how it is implemented, promoted, delivered and made accessible within different NHS organizations. Additionally, the way it is perceived and accepted by the practitioners is also of relevance.

**Keywords:** *Computerised Cognitive Behavioural Therapy, CCBT, Usability, Depression, Anxiety.*

### 1. Introduction

In Britain, mental illness accounts for one third of all illness (Appleby, 2007). Nearly one in six people are experiencing depression (National Institute for Health and Clinical Excellence [NICE], 2009). Depression and anxiety can cause one a lifelong of relapse and remission (NICE, 2011). Psychological treatments such as one-to-one cognitive behaviour therapy (CBT) or talking therapies are in high demand and the waiting list can be from 6 months to 2 years (Appleby, 2007; Rethink, 2009). However, there are not enough therapists available to help with this therapy, the cost can be very expensive and the demand is high (Layard, 2005; Rethink, 2009). CCBT as an alternative delivery method for traditional face-to-face CBT is increasing within the UK in response to the high demand for CBT coupled with shortages in trained therapists. Evidence from the literature review indicates CCBT is a positive and effective treatment (Proudfoot, 2004; Kaltenthaler et al., 2006, 2008; Spek et al., 2007) and has been recommended by NICE to use in NHS Primary Cares for management of mild to moderate anxiety and depression (NICE, 2009). Furthermore, the Scotsman newspaper announced in February 2012, that CCBT will be offered to patients across Scotland as an alternative to face-to-face sessions with trained therapists as a solution to cut costs and waiting times (Scotsman.com, 2012). NHS 24 was asked to support the business case for CCBT and providing its services in Scotland (Ehealth INSIDER, 2012). However, the low adherence to CCBT remains a concern.

### 2. Design

The low acceptance rate of CCBT raises questions that software usability might be expected to play a key role in the persistence of clients in therapy. However, there may be other

factors that have influenced the adherence of this computer-based interactive therapy. A qualitative study was therefore carried out to examine how CCBT is delivered and administered in certain NHS organisations.

### 3. Objectives

1. To explore the views of practitioners concerning the usability and acceptance of CCBT services
2. To gain a better understanding of how CCBT is set up, introduced and administered to intended users
3. To examine what factors other than usability might have an impact on the effective use of CCBT in current practice

### 4. Methods

Nine informants from different relevant parts of the NHS in Scotland were interviewed and audio-recorded using a semi-structured interview with guided questions. Various professionals in the field of Clinical Psychology and staff who coordinated and administered access to the CCBT resource were interviewed. A number was given to each person as identification to ensure that name and location were not disclosed. All interview transcripts and field notes were coded and analyzed based on the Constructing Grounded Theory Method (Charmaz, 2006). Each interview was initially coded line-by-line and by individual paragraph to identify actions and patterns. Focused coding was carried out as part of the move towards more theoretical coding and to enable constant comparison both within and between interviews. The focus was on experiences, actions and interpretations.

### 5. Results

The preliminary findings from the data analysis suggested some key issues that may have hindered the role and use of CCBT. The emerging theoretical categories have highlighted some of the challenges and barriers within different NHS settings such as being constrained by finances, getting buy-in from the NHS local authority, working atmosphere, accessibility, resistance to change, feelings of insecurity and fear, technology not meeting expectations and its usability flaws.

### 6. Conclusions

“Are we ready for it?” is still a question to be answered and further future research, particularly in implementation, is highly recommended. The findings of this study have presented some important factors that might have influenced the use and effectiveness of CCBT. Health care professionals and policy makers will have a clearer picture in decision-making, promoting, and delivering CCBT services more effectively and increase its use and acceptance in current practice.

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# HIGH ELECTRODERMAL ACTIVITY ENTAILS HIGH SOMATIC SYMPTOMS IN CAREGIVERS OF PEOPLE WITH AUTISM SPECTRUM DISORDER

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## Abstract

Caregivers of people with Autism Spectrum Disorders (ASD) suffer high levels of negative emotions and health complaints than general population. Previous research has demonstrated the pejorative consequences of this type of emotions in health. However, no studies have employed Electrodermal Activity (EDA), a biological marker of emotionality, to analyze these effects in samples of caregivers. This study aims to analyze EDA to acute stress in laboratory between caregivers of people with ASD and non-caregivers. The second aim of this study consist in evaluate the relationship between EDA and self-reported health. Sample was composed of parents of people with (n=34) and without (n=34) ASD. All participants were exposed to a psychosocial stressor consisting of twenty minutes performing a set of cognitive tasks. Skin Conductance Level (SCL) was obtained before, during, and after the stressor. Caregivers showed lower reactivity to acute stress than non-caregivers. Only in caregivers, high EDA was related with self-reported health. Caregivers with high electrodermal reactivity presented higher somatic symptoms and anger expression than low reactivity caregivers. Caregivers showed lower EDA than non-caregivers probably because of a habituation mechanism. Although it could be an adaptive way to protect their health, this hyporeactivity could be detrimental to the ability of caregivers to cope with several stressors. Interventions focused in stress and emotion regulation could prevent this situation.

**Keywords:** *Electrodermal activity, Emotion, Caregivers, Autism Spectrum Disorder, Health.*

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## 1. Introduction

Caring for a relative with a diagnosis of an Autism Spectrum Disorder (ASD) entails being subjected to chronic stress with several consequences for the health and well-being of the caregiver (Khanna et al., 2011). Caregivers of people with a chronic mental illness must cope with several daily challenges associated with the care situation that could endanger their body homeostasis (Seltzer et al., 2010). These daily challenges suppose a threat to allostasis. One major system involved in allostasis processes is the Autonomic Nervous System (ANS) (McEwen, 2007). Electrodermal Activity (EDA), an indicator of the functioning of the ANS, has been widely used as a clinical index of several stress-related psychophysiological disorders (Hugdahl, 1995). Tonic and phasic measures are two classic measures of EDA that have been studied (Boucsein, 2012). Tonic EDA, represented by Skin Conductance Level (SCL), is defined as the basal level of galvanic activity. However, few studies have analyzed this variable in samples of caregivers. Caregivers of people with cancer have shown higher galvanic responses to emotional stimulus than non-caregivers (Gonçalves and Graça, 2011). However, no differences have been found in caregivers of people with drug addiction (Soares, 2009).

Previous research has demonstrated that caregivers of people with ASD suffer high levels of anxiety, depression or anger, and this is probably a consequence of the chronic care situation (De Andrés-García, Moya-Albiol and González-Bono, 2012). This type of emotion, which could be categorized within the spectrum of negative affect, has been traditionally linked with several health complaints (Billings, Folkman, Acree and Tedlie, 2000). The biological mechanism of the consequences of this negative emotion on health remains unclear, but results reflect an alteration in the functioning of the immune and autonomic nervous systems (Salovey, Detweiler, Steward and Rothman, 2000). However, few studies have employed biological markers of emotionality, such as EDA, to understand the relationship between emotion and health. Reduced electrodermal reactivity to high levels of stress and excessive electrodermal responses to moderate stress in stressful laboratory situations (Papousek, Schultze and Premeisberger, 2002) have been related to many gastrointestinal symptoms. Moreover, skin resistance amplitude was positively related to the physical health domain and negatively related to social functioning in university students (Juárez, Castro and Scarpeta, 2005).

## 2. Objectives

The first aim of this study is to compare the electrodermal response to acute mental stressors in the laboratory between parents of people with ASD and parents of age-matched typically developing children. Even if there is a lack of conclusive studies in this line, we expect to find higher reactivity in the case of caregivers (Gonçalves and Graça, 2011). The study also aims to analyze the relationship between EDA and somatic symptoms and we expect to find a positive relationship (Papousek, et al., 2002).

## 3. Methods

### 3.1. Participants

The sample was composed of 68 participants: 34 parents of patients with ASD (20 women and 14 men) and 34 parents of age-matched typically developing children (20 women and 14 men). Criteria for participating in the study included being a first degree relative of a patient with ASD, being the main provider of first-needs, and living in the same home for at least two years before the study. The non-caregiver group was formed of parents of healthy offspring who had not been caring for a relative for at least two years before the start of the experiment. All voluntary participants signed an informed consent that followed ethical norms for human research (Helsinki Declaration) and acceptance was gained from the local official ethical committee.

### 3.2 Procedure

The participants were instructed to abstain from eating, drinking stimulants (such as tea, coffee, or alcohol), or smoking during the two-hour period before arriving at the laboratory. The experimental procedure was performed between 4:00 pm and 7:00 pm, and each session lasted approximately two and a half hours. After the participants arrived, the anthropometrical variables (age, weight, and height) were measured and compliance with the instructions was confirmed. Participants were conducted to the stress room. This room was sound-attenuated, temperature-controlled ( $21 \pm 2$  °C), and light-constant during all sessions. Electrodes were attached and participants were encouraged to be comfortable and relaxed. After a few minutes of habituation, *Baseline* was recorded for 10 minutes while participants completed psychological questionnaires for the evaluation of pre-stress anxiety and mood. General information regarding the stress stimuli was then provided to the participants. After giving *Instructions* (2 minutes), the *Anticipatory* period began (5 minutes) and during which participants remained silent. When the anticipatory period finished, participants were exposed to a psychosocial stressor composed of four mental and arithmetical tasks in the same order. Immediately after completing the *Stressor* (20 minutes), physiological registration continued during the *Recovery* period (10 minutes) while participants completed questionnaires for the evaluation of post-stress anxiety and mood.

### 3.3 Measures

Somatic symptoms were assessed with the Spanish revised scale of the Somatic-Symptoms-Scale (ESS-R) created by Sandín and Chorot (1995). This instrument lists symptoms over the last two years and is composed of 80 items that are focused on complaints of immunological, cardiovascular, respiratory, gastro-intestinal, neuro-sensory, muscular, dermatological, genital-urinary systems, and several female reproductive system symptoms. A total score for symptoms is calculated. Each scale is composed of 10 items scored on a 5-point Likert scale from 0 (never) to 4 (more than five times in the last two years) with reliability coefficients ranging from 0.79 to 0.84.

Two Ag/AgCl electrodes (TSD203) with a 6 mm diameter contact area were used to measure SCL. Adhesive collars were used to locate the electrodes on the middle phalanxes of the fore and ring fingers on the non-dominant hand. Hypoallergenic gel was used as a contact medium between the skin and electrode. A skin conductance module (GSR100C) amplified the electrical signal with a constant voltage below 0.5 volts

## 4. Results

In SCL, the interactions 'group\*period' were significant [ $F(2.071, 132.566) = 3.508, p < .05, \eta^2_{\text{partial}} = .052$ ]. When the Bonferroni adjustment for multiple comparisons was applied, the effect of the interaction of 'group\*period' did not reach statistical significance. When analyzing the magnitude of the electrodermal response by means of the total AUC, a significant effect for the factor 'group' was observed [ $F(1,64) = 6.347, p < .05, \eta^2_{\text{partial}} = .090$ ]. Caregivers showed lower magnitude of total AUC than non-caregivers.

For self-reported health, in the case of caregivers, total AUC was positively related to muscular ( $r = .578, p < .000$ ), gastrointestinal ( $r = .362, p < .05$ ), female reproductive symptoms ( $r = .406, p < .05$ ), as well

as total symptoms ( $r=.458$ ,  $p<.01$ ). With the aim of establishing differences in symptoms between caregivers based on their SCL, K-means cluster analysis was performed on the total AUC of SCL creating 2 groups (caregivers with high and low electrodermal response). Significant differences were found in muscular  $F(1,32)=12.361$ ,  $p<.001$ ,  $\eta^2_{\text{partial}}=.279$ , and total symptoms  $F(1,32)=5.265$ ,  $p<.05$ ,  $\eta^2_{\text{partial}}=.141$ . A trend to significance was found for dermatological  $F(1,32)=3.794$ ,  $p<.06$ ,  $\eta^2_{\text{partial}}=.106$ , and female reproductive system  $F(1,32)=3.647$ ,  $p<.06$ ,  $\eta^2_{\text{partial}}=.119$ . The group of highly responsive caregivers showed more symptoms in these subscales than less responsive caregivers.

## 5. Discussion

Our results suggest that caregivers of people with ASD showed less electrodermal reactivity to acute cognitive stressors than non-caregivers. This fact could be explained by a stress habituation process. Caregivers of people with ASD have to cope with several daily stressors from care situations, such as behavioral problems or autistic symptoms of offspring (Smith et al., 2010). This situation repeated every day could produce a stress habituation in caregivers, dampening their emotional response. To present a lower responsivity than the normal population could entail developing emotional avoidance ability, which in turn maintains an adaptive body homeostasis. This hypothesis has been proven after finding a dampened EDA in individuals with high trait anxiety (Naveteur et al., 2005). This ability was proposed as an adaptive process to reduce disruption, such as health complaints, caused by high levels of chronic activation. To be constantly in a state of alert could have negative consequences for health when individuals are undergoing chronic stress.

If caregivers lose the ability to cope with daily stress they will perform poorly. Biological and psychological responses originating from stressors are necessary to cope effectively with environmental demands. For this reason, a hyporeactive physiological system could reduce this adaptive ability, while protecting caregivers from health problems. It is therefore necessary to implement emotional and stress management interventions mainly in the early stages of the diagnosis of the care recipient

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## TYPOLOGY OF AGGRESSIVE DRIVERS: IDENTIFICATION OF FOUR PROFILES AMONG LAYPERSONS, DRIVING OFFENDERS AND IMPRISONED DRIVING OFFENDERS

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### Abstract

In many countries, aggressive driving and incivility seem to increase (Delhomme & Villieux, 2005). Nevertheless, there is a lack of research in the area. Indeed, a third serious accidents would be due to aggressive driving (Deffenbacher, 2001). As a consequence, focusing on this issue in both psychological and psychopathological areas is quite important. The study's aim was to examine the pattern in which transgressive and aggressive driving motives and aggressive driving were ordered in different clusters of drivers. This pattern was studied among laypersons, individuals having committed driving violations and imprisoned driving offenders. To establish the difference between profiles, anger disorders, driving anger, traffic violations and type of aggressiveness were studied and compared between clusters. Three sub-samples were established: 237 laypersons, 200 individuals participating in training courses on the causes and consequences of accidents, and 56 in-mates convicted for road offenses. Participants completed a survey evaluating the different variables previously enounced. Results show the emergence of four profiles of drivers: the respectful, the aggressive-justiciaries, the aggressive-dominant and the aggressive-situational. The difference between these clusters has been confirmed by the high tendency of anger disorders for the aggressive-dominant ( $F=49.83$ ;  $p<.001$ ), the low tendency of aggressive driving for the respectful ( $F=427.92$ ;  $p<.05$ ), the high tendency for driving anger provoked by illegal driving of others for the aggressive-justiciaries ( $F=5.28$ ;  $p<.001$ ) and the high tendency of speeding for the aggressive-situational ( $F=99.29$ ;  $p<.001$ ). Our findings strongly support the importance of creating programs adapted for each driver's profile.

**Keywords:** *Aggressive driving, Psychopathology, Typology, Anger, Emotional and instrumental aggressiveness.*

### 1. Introduction

For over ten years, a particular interest has been shown to drivers' behaviors (AAA Foundation for Traffic Safety, 1997). Research in this domain has studied different behaviors that might influence dangerous driving and motor vehicle accidents (Dahlen, Martin, Ragan & Kuhlman, 2005; Houston, Harris, & Norman, 2003; Shinar & Compton, 2004). In particular, aggressive driving has been frequently studied. For instance, nowadays road users perceive aggressive driving as one of the most significant problems encountered on the road (AAA Foundation for Traffic Safety, 1997; NHTSA, 1998; Shinar & Compton, 2004). In many countries, aggressive driving and incivility seem to increase (Delhomme & Villieux, 2005). Martinez (1997) and Snyder (1997) have reported that one to two serious accidents can be attributed to an aggressive behavior on the road. Moreover, aggressive driving is a major cause of traffic accidents and injuries (NHTSA, 2000). As a consequence, focusing on this issue in both psychological and psychopathological areas is quite important.

### 2. Objectives

The purpose of this study was to establish a typology of aggressive drivers. A first step was to examine the pattern in which transgressive and aggressive driving motives and aggressive driving were ordered in different clusters of drivers. A second step was to investigate if anger disorders, driving anger, traffic violations and type of aggressiveness could differentiate between the different profiles of drivers.

### 3. Method

#### 3.1. Participants

Three sub-samples were established: 237 laypersons, 200 individuals participating in training courses on the causes and consequences of accidents, and 56 in-mates convicted for road offenses. The participants were unpaid volunteers. Three inclusion criteria were considered for laypersons and individuals participating in training courses on the causes and consequences of accidents : (1) participants had to be eighteen years old or over, (2) to have had driver's license, and (3) to drive regularly for at least a year. For the imprisoned driving offenders, they should have at least one conviction for driving offenses. All participants were French, ages ranged from 18 to 81 years ( $M = 34.41$ ,  $S.D. = 12.01$ ).

#### 3.2. Instruments

*DAS (Driving Anger Scale)*: The propensity to become angry while driving was measured using the DAS (Deffenbacher, Oetting & Lynch., 1994). The French version used in this study has shown to have good reliability and validity ( $\alpha = .82$ ) (Villieux & Delhomme, 2007). This version presents 22 items and assesses five factors: Impeded Progress, Illegal Driving, Hostiles Gestures, Police Presence and Traffic Obstructions.

*DBQT (Driving Behavior Questionnaire Transgression)*: Aggressive and transgressive driving was measured with the 12-item DBQT (Lawton, Manstead & Stradling, 1997; French version, Delhomme & Villieux, 2005). This scale assesses three types of driving transgressions: Speed Rules Transgression, Aggressive Transgression (when hostility is directed to another driver) and Progress Transgression (to maintain smooth driving in the traffic; not necessarily related to speed). The French version ( $\alpha = .86$ ) used in this study showed to have good reliability and validity (Delhomme & Villieux, 2005).

*QAIE (Instrumental and Emotional Aggressiveness Questionnaire)*: This 30-item scale is mostly derived from the Aggression Questionnaire (Buss & Perry, 1992). The QAIE assesses a global score of aggressiveness and four subscores of aggression: Emotional-Physical Aggression, Emotional-Verbal Aggression, Instrumental-Physical Aggression and Instrumental-Verbal Aggression. The French version showed to have a good reliability and validity ( $\alpha = .85$ ).

*ADBS (Aggressive Driving Behavior Scale)*: This 11-item scale assesses "aggressive driving" through two different terms: Speeding and Conflict Behavior. This scale lists 11 unsafe driving practices that could be interpreted as aggressive (Houston et al., 2003).

*ADS-S (Anger Disorder Scale-Short Form)*: This 19-item scale (DiGiuseppe & Tafrate, 2004) assesses anger as an independent problem, rather than as a secondary symptom of another issue. This scale assesses three factors : Anger-in, Reactivity/Expression and Vengeance.

*Inventory of Motives of driving aggression, transgression and respect of traffic rules*: This 62 item-questionnaire (Berdoulat, 2012) assesses the motives of driving aggression, transgression and respect of traffic rules according to the Reversal Theory (Apter, 2001).

#### 3.3. Procedure

Participants completed a survey evaluating the different variables previously enounced. The consent form explained to participants that they were being asked to take part in a research project investigating aggressive and transgressive driving. The form assured participants that their responses would remain anonymous. The participants were informed that it took approximately 30 min to fill out the questionnaire.

### 4. Results

The cluster analysis shows the emergence of four profiles of drivers: Cluster A - The respectful: Cluster A ( $n=131$ ) was characterized by low levels of aggressive driving. Cluster B - The aggressive-justiciaries: This was the largest cluster group ( $n=190$ ). Participants exhibited high scores on motives of aggressive driving to protect others. Cluster C - The aggressive-dominant: This cluster group demonstrated ( $n=29$ ) high scores on motives of aggressive driving to impose on the others. Cluster D - The aggressive-situational: This cluster group ( $n=143$ ) was characterized by high levels of aggressive driving and overspeeding.

ANOVA show a satisfactory Wilks' Lambda (0.276). The difference between these clusters has been confirmed by the high tendency of anger disorders for the aggressive-dominant ( $F=49.83$ ;  $p<.001$ ), the low tendency of aggressive driving for the respectful ( $F=427.92$ ;  $p<.05$ ), the high tendency for driving anger provoked by illegal driving of others for the aggressive-justiciaries ( $F=5.28$ ;  $p<.001$ ) and the high tendency of speeding for the aggressive-situational ( $F=99.29$ ;  $p<.001$ ).

## 5. Discussion/Conclusion

This study provides a contribution at the theoretical and practical levels. Indeed, this research brings forth new empirical findings to the field of aggressive and transgressive driving with the emergence of a typology of aggressive drivers. At the same time, this study also raises the fact that this typology applies to different groups although some classes are more salient than others based on group membership. Our findings strongly support the importance of creating programs adapted for each driver's profile.

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# **FEMINIST IDENTITY STYLES, SEXUAL AND NON-SEXUAL TRAUMATIC EVENTS AND PSYCHOLOGICAL WELL-BEING IN A SAMPLE OF POLISH WOMEN**

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## **Abstract**

The aim of the research was to investigate the relations between Feminist Identity Development (FID) styles (as introduced by Downing and Roush) and selected aftermaths of traumatic stress in a sample of Polish women. The distinction between non-sexual and sexual traumatic events was made as it is often claimed that the latest have more severe impact on women's functioning. It was hypothesized that individuals resulting high in Synthesis and Active Commitment scales of Feminist Identity Development Model would present a higher self-esteem and lower level of depressiveness compared to individuals resulting low on those scales and high on Passive Acceptance scale. It was also assumed that the relation between Feminist Identity Development stages and self-esteem and depressiveness will be stronger in women, who'd experienced sexual traumatic events compared to those, who experienced other kinds of trauma. 273 women randomly picked from general population in Warsaw, Poland, participated in questionnaire research. Four groups emerged: (1) those, who haven't experienced any kind of traumatic event; (2) those, who've experienced non-sexual trauma; (3) those, who've experienced sexual trauma; (4) those, who've experienced multiple trauma. Both hypotheses were confirmed as in all groups predicted patterns of relations between FID stages and self-esteem and depressiveness were found. Moreover, the effect was strongest in group 3. This is yet another evidence of relations between feminist identity and women's well-being. Additionally, the results of the research help understand the nature of traumatic stress related problems in women in relation to a wider social context.

**Keywords:** *Feminist Identity Development Model, Traumatic events, Sexual violence, Self-esteem, Depressiveness.*

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## **1. Introduction**

The theoretical framework for this study is the Feminist Identity Development Model developed by Nancy Downing and Kristin Rousch (1985). The model was inspired by the theory of Black Identity Development (Cross, 1971; after: Downing & Rousch, 1985), i.e. the model of identity development in representatives of the Afro-American minority which includes the experience of discrimination. According to Cross, Afro-Americans go through several stages of self-identification as victims of discrimination before they incorporate the authentic and positive identity associated with group affiliation into their identity structure. Downing and Rousch argue that identity development in women follows a similar pattern. Their model posits five stages in the development of identity in women as victims of discrimination.

Stage 1, passive acceptance (PA), refers to the situation when women deny the existence of discrimination and do not question the correctness of the present social order. They accept male dominance and traditional social roles. Stage 2, revelation (RE), is triggered by evidently damaging events in a woman's life which she can no longer deny. She begins to question male domination. She is now angry with the status quo. Stage 3, is embeddedness-emanation (EE). In this stage women develop emotional attachments with their reference group, i.e. other women. They distance themselves from the men's world to make room for individual, un-stereotyped self-definition. Once they have gone through this difficult stage they may reach Stage 4, synthesis (SY). Women in this stage are able to transgress their gender roles and to see themselves, other women and men in a stereotype-independent way. They also value various manifestations of femininity and include them in their positive self-definitions. Stage 5, active commitment (AC), is also sometimes called the behavioral expression of the achievements of



the synthesis stage. Women now become actively involved in work on behalf of equality and the overcoming of gender-related stereotypes. A number of studies have shown that the stages outlined about differentiate women on several dimensions of psychological wellbeing (i.e. Yakushko, 2007; Landry & Mercurio, 2009).

## 2. The present study

The aim of the present study is to examine if feminist identity styles are moderators between traumatic experiences and selected aspects of psychological functioning. A body of research has shown relations between feminist identity and both mood and self-esteem. Therefore, the crucial question in this project is whether this pattern of relations is similar in women who have experienced trauma and if it changes depending on the type of trauma. Koss, Bailey & Yuan (2003) claim that self-blame, guilt and core beliefs are among the most important factors determining women's response to sexual violence. Therefore, it seems valid to apply the Feminist Identity Development concept to the issue of traumatic events in women.

The existing body of research allowed to formulate the following hypotheses:

1. There is a relation between feminist identity styles and depressiveness and self-esteem. Passive acceptance is positively related to depressiveness and negatively to the level of self-esteem. On the other hand, synthesis and active commitment are negatively related to depressiveness and positively to the level of self-esteem. No hypotheses are formulated for revelation and embeddedness-emanation.

2. Feminist identity styles are a moderator between the type of trauma and the levels of depressiveness and self-esteem. The role of feminist identity styles is more significant in the case of sexual trauma, and the following pattern occurs: women who experienced trauma and present a high level of passive acceptance show greater depressiveness and lower self-esteem than women who present lower passive acceptance. This effect is stronger for women who experienced sexual trauma.

## 3. Method

A total of 273 women participated in the study; their age range was 20–65 years old ( $M = 35.4$ ,  $SD = 11.2$ ). Most of the participants (89.4%) live in the capital of Poland, Warsaw, while others reside in towns near Warsaw. Of the sample most had received a university education or were currently enrolled as university students (96.7%), others had received a high school education.

A correlation-regression design was employed. The variables were as following:

- The type of trauma: Traumatic Events Inventory
- Feminist Identity Styles: The Polish adaptation of the Feminist Identity Composite
- Depressiveness: The experimental version of the Depressiveness Inventory
- Self-Esteem: The Polish adaptation of Rosenberg Self-Esteem Scale.

## 4. Results

Passive acceptance correlates significantly with both self-esteem ( $r = -.41$ ,  $p = 0.00$ ) and general depressiveness ( $r = .46$ ,  $p = 0.00$ ). Revelation and embeddedness/emanation correlate at significant level only with self-esteem. On the other hand, significant correlations were found for the feminist identification measures: synthesis and active commitment, and self-esteem (positive correlations) and depressiveness (negative correlations).

Interaction regression analyses were performed, where feminist identity styles were moderators, self-esteem and depressiveness were dependent variables, and dichotomous variables: (a) no trauma vs. sexual trauma, and (b) non-sexual vs. sexual trauma were predictors. For self-esteem, interaction effects were significant in both cases for all feminist identity styles. For example, the results for passive acceptance were: (a)  $\beta = -.25$ ,  $p = .006$ , (b)  $\beta = -.28$ ,  $p = .004$ . While negative relation was found for passive acceptance, positive direction of relation was demonstrated for the feminist identification styles. When the feminist identity styles main

effects were analyses in separate groups, the size of the effect was always bigger in the sexual trauma group. When depressiveness was included as a dependent variable, significant interaction effects were only found for revelation (a:  $\beta = -.23$ ,  $p = .03$ , b:  $\beta = -.24$ ,  $p = .03$ ) and embeddedness/emanation (a:  $\beta = -.34$ ,  $p = .002$ , b:  $\beta = -.33$ ,  $p = .005$ ).

## 5. Discussion

The obtained results confirm both hypotheses. First of all, there is a strong relation between various subscales of FIC and dependent variables: passive acceptance was found to be related to higher levels of depressiveness, and lower levels of self-esteem and active coping. The opposite pattern of relations was demonstrated for synthesis and active commitment. The interaction model was fully confirmed, when self-esteem was included as a dependent variable. All FIC subscales moderated the relationship between the type of trauma and this variable. In both cases (no trauma vs. sexual trauma, and non-sexual vs. sexual trauma) was the passive acceptance negatively related to self-esteem, while the relation was stronger in the sexual trauma group. This pattern of relations occurred for other feminist identity styles, but the relations were positive. In general, a strong difference between traditional and feminist identification was demonstrated. When the general level of depressiveness was included in the analyses, the results were not as conclusive. Significant interaction effects were found for revelation and embeddedness/emanation. These results appear to be quite unexpected, because according to the theory, both styles are associated with strong, negative emotions. Nevertheless, according to the study results, these styles are negatively related to depressiveness in women who had experiences sexual trauma.

There is a substantial body of evidence that supports the idea of relations between feminist identity and woman's well-being. Likewise, in the current research, these relationships have been demonstrated. The significance of feminist identity styles was mostly visible in individuals who had experienced sexual trauma. This evidence confirms the notion, that self-blame and other assumptions about the rape might be significant in understanding a women's response to sexual violence.

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## EMOTIONAL INTELLIGENCE AS A PREDICTOR OF JOB RELATED CRITERIA AND WELL-BEING

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### Abstract

The study examined the efficacy of trait and ability measures of emotional intelligence (EI) in predicting several life outcomes over traditional predictors such as intelligence and personality. Participants in the study were 288 adults (160 male), who completed the TEIQue and MSCEIT (measures of trait/ability EI), a battery of standard intelligence tests, the NEO-FFI (measuring the Big Five), and the RSPWB (measuring well-being). Information on salary, job position, and self-assessed job performance were also gathered. A series of hierarchical multiple regression analyses were conducted by entering the g-factor of intelligence as predictor in Step 1, the Big Five in Step 2, and trait and ability EI in Step 3; job position, salary, self-assessed job performance, and well-being served as the criteria. All four regression models proved significant, accounting for 18-63% of the criterion's variance. However, the contribution of particular predictors differed depending on the criterion employed, with a) the g-factor being the single significant predictor of salary ( $\Delta R^2 = .218$ ), b) both the g-factor and personality adding significantly to the prediction of job position (g-factor  $\Delta R^2 = .117$ ; Big Five  $\Delta R^2 = .065$ ) and self-assessed job performance (g-factor  $\Delta R^2 = .068$ ; Big Five  $\Delta R^2 = .169$ ), and c) trait EI making a significant contribution ( $\Delta R^2 = .048$ ) to the prediction of well-being, over intelligence ( $\Delta R^2 = .221$ ) and personality ( $\Delta R^2 = .363$ ). The current findings reinforce the use of traditional measures of intelligence and personality in predicting job related criteria, but encourage the assessment of trait EI for the purpose of predicting well-being.

**Keywords:** *Emotional intelligence, Predictive validity, Job related criteria, Well-being.*

### 1. Introduction

The process of scientifically validating EI and its measures is still at an early stage and fraught with important challenges – a crucial one being that of establishing the construct's incremental validity (Landy, 2005). Although a number of studies suggest that EI correlates with a variety of relevant life outcome criteria, research data are not always consistent and are far from conclusive (see Zeidner et al., 2009).

Moreover, it has lately become imperative in the field to differentiate between two models and measures of EI (Petrides, 2011). Ability models propose that EI should be conceived as intelligence, and assessed through maximum performance measures. Trait models, on the other hand, postulate EI as a constellation of emotion-related self-perceptions, and operationalize it via typical performance measures. When comparing trait and ability-EI in terms of their predictive power, empirical findings tend to favor the former, exposing the latter as having weak or non-significant associations to personal adaptation (Zeidner & Olnick-Shemesh, 2010). However, these comparisons have rarely been carried out within a single study, using both types of measures with the same participants and the same criterion variables. The current study sought to fill this gap in the literature by testing the incremental validity of both trait and ability EI in predicting a set of work and mental health related criteria.

### 2. Method

Data were collected on a sample of 288 adults (160 males) employed in a large dairy concern. Participants' age ranged from 21 to 61 ( $M=40.4$ ,  $SD=8.19$ ). Since participants were tested on two separate occasions, and some data were provided by the employer, measures for all the variables studied were not available for the entire sample. Thus,  $N$  ranges from 155 to 286 in different statistical analyses.

Ability EI (AEI) was measured with the *MSCEIT 2.0* (Mayer et al., 2002), whereas trait EI (TEI) was assessed with the *TEIQue* (Petrides, 2009). In both instances, Serbian translations of the instruments were used, which have thus far demonstrated good validity and reliability (Altaras Dimitrijević & Jolić Marjanović, 2010; Altaras Dimitrijević et al., 2011). The MSCEIT comprises four EI branches (Perception, Facilitation, Understanding, and Management), while the TEIQue subscales form four factors (Emotionality, Sociability, Self-Control, and Well-Being).

In order to extract a *general intelligence* factor four standard intelligence tests were administered: Raven's Progressive Matrices, Verbal analogies, Number series and General knowledge. The *NEO-FFI* (McCrae & Costa, 2004), was used to assess the Big Five personality domains: Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A) and Conscientiousness (C). A short version of the *Ryff's Scales of Psychological Well-being* (RSPWB; Ryff & Keyes, 1995) was used to assess psychological well-being. Data on salary and job position were provided by the employer, and data on job satisfaction were received through participants' self-assessment on a single item.

### 3. Results

To examine the incremental validity of EI, four separate hierarchical regression analyses were conducted, with the g-factor entered as predictor in Step 1, the Big Five entered in Step 2, and AEI and TEI scores added in Step 3. Salary, job position, job satisfaction and well-being served as the criteria. The full set of predictor variables demonstrated significant power in predicting all four criteria, explaining 18-63% of the criterion's variance. Nevertheless, the contribution of particular predictors to the overall model differed significantly: (1) the g-factor was significant in predicting all criteria, (2) some personality domains were significant in predicting job position, job satisfaction and well-being, (3) the two EI measures added no substantial variance in explaining the selected criteria, with the notable exception of the significant 5% contribution of TEI in predicting well-being (see Table 1 for details). However, in a set of single predictor regressions, AEI explained 2-17% of the criteria's variance, and TEI accounted for as much as 5-54% (the lowest percentage for salary and the highest for well-being, for both EI measures). Furthermore, it was found that the contribution of TEI in predicting well-being suffers only minor changes when the TEI score is calculated so as to exclude the Well-Being factor to avoid possible overlap between the predictor and criterion constructs: in this case, TEI still explains 4% of variance in well-being in the hierarchical model, and 53% in the single predictor regression.

**Table 1:** Summary of hierarchical regression analyses

Measures	Regression statistics for different criteria							
	Salary		Job position		Job satisfaction		Well-being	
<i>Step 1</i>	$\beta$	t	$\beta$	t	$\beta$	t	$\beta$	t
g	.467	6.549**	-.342	-5.754**	.260	4.203**	.470	8.444**
<b>F (df)</b>	42.888 (1, 154)**		33.107 (1, 250)**		17.668 (1, 243)**		71.301 (1, 251)**	
<b><math>\Delta R^2</math></b>	.218**		.117**		.068**		.221**	
<i>Step 2</i>								
g	.425	5.404**	-.248	-3.842**	.155	2.441*	.251	5.476**
N	-.135	-1.347	.261	3.344**	-.144	-1.868	-.354	-6.375**
E	-.114	-1.325	.089	1.291	.004	.053	.112	2.282*
O	.087	1.189	-.034	-.558	.085	1.426	.202	4.666**
A	-.145	-1.817	.207	3.321**	-.141	-2.294*	.100	2.258*
C	.090	.973	-.026	-.356	.330	4.629**	.152	2.961**
<b>F (df)</b>	8.498 (6, 149)**		9.059 (6, 245)**		12.321 (6, 238)**		57.686 (6, 246)**	
<b><math>\Delta R^2</math></b>	.037		.065**		.169**		.363**	
<i>Step 3</i>								
g	.434	5.271**	-.254	-3.714**	.138	2.067*	.192	4.195**
N	-.103	-.850	.258	2.747**	-.076	-.826	-.161	-2.561**
E	-.137	-1.438	.093	1.218	-.037	-.492	-.002	-.036
O	.083	1.124	-.034	-.545	.069	1.141	.155	3.708**
A	-.149	-1.857	.207	3.291**	-.146	-2.369*	.086	2.038*
C	.077	.795	-.028	-.362	.297	3.921**	.051	.981

AEI	-.081	-.920	.028	.405	-.006	-.083	.003	.071
TEI	.110	.730	-.016	-.128	.152	1.292	.436	5.389**
<b>F (df)</b>	6.471 (8, 147)**		6.764 (8, 243)**		9.450 (8, 236)**		52.479 (8, 244)**	
<b><math>\Delta R^2</math></b>							.048**	

Note: \*\* $p \leq .01$ ; \* $p \leq .05$

#### 4. Discussion and conclusions

The current study suggests that neither ability, nor trait EI exhibits incremental validity over intelligence and personality when predicting job-related criteria. At the same time, it seems that the two EIs may well be differentiated in terms of how relevant they are to the prediction of psychological well-being: trait EI, as measured by the TEIQue, reaches the 5% limit for establishing incremental validity (Mayer et al., 2000), while ability EI, measured by the MSCEIT, does not. Moreover, trait EI proves to be the best single predictor of well-being when compared to other dispositions assessed. Finally, the doubt of criterion contamination often posed on trait EI measures (Zeidner et al., 2009) might turn out to be ungrounded, since it was found that the TEIQue score keeps its predictive capacity even after the Well-Being factor has been excluded from the overall score. Thus, it can be concluded that measuring trait EI (with the TEIQue) may indeed be a valuable addition to the practitioner's assessment repertoire in any setting where it would be relevant to predict well-being.

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# MEANING MAKING PROCESSES AND RELATIONSHIP SATISFACTION IN COUPLES FOLLOWING A SHARED STRESSFUL LIFE EVENT

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## Abstract

Although ‘meaning-making processes’ and ‘meanings made’ have been identified as important constructs in the psychological adjustment to a range of stressors, there has been a dearth of research that has examined such constructs within the interpersonal context in which individuals adjust to stressful life events. Using a standard dyadic design we examined the roles of meaning making and meanings made in relationship satisfaction in a sample of 80 heterosexual couples who had experienced a stressful life event in the last 12 months. Couple members individually completed measures of positive reframing (as an indicator of meaning making), perceived benefits (as an indicator of meanings made) and relationship satisfaction. Using multilevel modelling from a pairwise data set we examined the effects of an individual’s positive reframing and perceived benefits on their relationship satisfaction (actor effects) and the effects of their partner’s positive reframing and perceived benefits on their relationship satisfaction (partner effects). A significant actor effect was found for positive reframing ( $B = .69, p = .011$ ) but not for perceived benefits ( $B = -.02, p = .371$ ). A significant partner effect was also found for positive reframing ( $B = .74, p = .004$ ), such that higher partner scores on positive reframing related to greater relationship satisfaction. Although the cross-sectional design of the current study limits inferences regarding the direction of the relationships between both positive reframing and perceived benefits and relationship satisfaction, the findings provide support for examining meaning making theory at the couple-level.

**Keywords:** *Meaning making theory, Positive reframing, Perceived benefits, Relationship satisfaction.*

## 1. Introduction

Most people will experience a traumatic or highly stressful life event in their lifetime. Various theories identify factors that predict better adjustment to such traumatic and stressful life events, a number of which include the construal of meaning as a key factor in predicting adjustment. As noted by Park (2010), these meaning-focused theories contain similarities, such as the notion that people have global belief systems, which may be challenged when a stressful life event occurs. The distress associated with discrepancies between global belief systems and a person’s situational appraisal of an event propels a search for meaning. This search for meaning (termed ‘meaning making’) can include meaning-focused coping, such as positively reappraising the event. Meaning making is thought to give way to meanings made, such as perceiving benefits or positives from the event, which are in turn thought to lead to better psychological adjustment.

Although there are many stressful events and situations that affect both members of a couple (e.g., couples coping with chronic illness) or an entire family (e.g., families with a child with a chronic illness), the interpersonal nature of coping with a shared stressor has been largely neglected in meaning-making theory and research. As people try to search for meaning in highly stressful life events, they tend to do this by talking about the event and the implications with their loved ones. Thus, similar to family stress theorists (e.g., Patterson, 2002) and recent work by Christopher Davis and colleagues (Davis, Harasymchuk, & Wohl, 2012), we propose that the meaning individuals construct is, at least in part, constructed within their close interpersonal relationships, and that the meanings made by each individual relates not only to their own adjustment but also to their significant other’s adjustment. As such, we used the Actor-Partner Interdependence Model (Kenny, et al., 2006), to examine not only whether individuals’ scores on meaning making and meanings made are related to their own adjustment (‘actor effect’), but also whether these predictor variables are related to their partners’ adjustment (‘partner effect’).

In this preliminary research we were specifically interested in relationship satisfaction as an indicator of adjustment. We hypothesised that there would be significant actor effects of meaning making (conceptualised as positive reframing) and meanings made (conceptualised as perceived benefits) on relationship satisfaction, such that higher scores on positive reframing and perceived benefits would be related to greater relationship satisfaction. We also hypothesised that higher partner scores on positive reframing and perceived benefits would be related to greater relationship satisfaction.

## 2. Method

### 2.1 Participants and Recruitment

Eighty heterosexual couples that had experienced a stressful life event in the previous 12 months were recruited from the university campus and the broader university community for the present study. Because we were interested in meaning making in the context of a range of relationships the sample includes couples in a dating relationship ( $n = 39$ , 49%), de facto relationship ( $n = 23$ , 29%), and marital relationship ( $n = 18$ , 22%). Couple members were asked to individually rate the stressful life event they had experienced in the previous 12 months from 1 (*not at all*) to 7 (*extremely*) with regards to the stress perceived at the time of the event and stress perceived at present. Retrospective ratings of the stress perceived at the time of the event ranged between 2 and 7 with a mean of 5.88 ( $SD = 1.23$ ) indicating that these events were stressful for the participants. On average current stressfulness of the event was 3.56 ( $SD = 1.72$ ) with ratings ranging from 1 to 7.

### 2.2 Measures

*Positive reframing.* The 2-item positive reframing subscale of the Brief Cope (Carver, 1997) was used to measure positive reframing as an indicator of meaning making. Couple members were asked to rate each coping statement, such as “I try to see it in a different light, to make it seem more positive”, from 0 (*I don't do this at all*) to 3 (*I do this a lot*). Observed Cronbach's alpha was .85.

*Perceived benefits.* The 38-item Perceived Benefit Scales (McMillen & Fisher, 1998) were used to measure overall perceived benefits following the stressful life event as an indicator of the meanings made by participants. This scale consists of 30 positive-change items, which were summed for this study, and 8 negative change items designed to avoid bias in responding. Respondents rated the items, such as “This event has taught me I can handle anything”, from 0 (*not at all like my experience*) to 4 (*very much like my experience*). Observed Cronbach's alpha was .94.

*Relationship satisfaction.* Couple members' individual perception of their relationship with their partner was measured by the 7-item Abbreviated Spanier Dyadic Adjustment Scale (Sharpley and Rogers, 1984), which was derived from the 32-item Dyadic Adjustment Scale (Spanier, 1976). A global dyadic adjustment score was obtained by summing the seven items. Observed Cronbach's alpha was .89.

### 2.3 Procedure and design

Couples were sent a questionnaire package in the mail, which included an explanatory statement, two surveys (one for each member of the couple) and a reply-paid envelope to return the survey to the researchers. The design was a standard dyadic design in which data were collected at one point in time (cross-sectional).

## 3. Results

Multilevel modelling using the MIXED MODELS procedure in SPSS Version 19 was used to estimate an Actor-Partner Interdependence Model to predict relationship satisfaction from actor and partner effects of positive reframing and perceived benefits. The Actor-Partner Interdependence Model also included gender (coded 1 = male and -1 = female), cohabitation (coded -1 = not cohabiting, 1 = cohabiting), and length of relationship. Gender was related to

relationship satisfaction, such that men reported greater relationship satisfaction than women ( $B = .87, p = .001$ ). Significant actor ( $B = .69, p = .011$ ) and partner effects ( $B = .74, p = .004$ ) of positive reframing on relationship satisfaction were found, such that one's own positive reframing of the stressor and one's partner's positive reframing of the stressor predicted better relationship satisfaction. No significant actor ( $B = -.02, p = .371$ ) or partner ( $B = -.01, p = .775$ ) effects were found for perceived benefits.

#### 4. Discussion

This study aimed to provide preliminary insight into the interpersonal context of meaning making and adjusting to a personal stressor. Although we found further support for the positive relationship between one's own meaning making and their own relationship satisfaction, what was particularly interesting was the partner effect of meaning making on relationship satisfaction. This finding provides preliminary support for the examination of meaning making theory at the couple- and family-level. Neither an actor nor partner effect of perceived benefits was found, which brings into question whether meaning actually has to be made for meaning making to relate to better adjustment. Future longitudinal research where data are collected over time is necessary if a thorough understanding of the social context of meaning making and adjustment is to be established. Such research may inform meaning-based couple interventions.

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## **LIFEISGAME: A SERIOUS GAME ABOUT EMOTIONS FOR CHILDREN WITH AUTISM SPECTRUM DISORDERS**

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### **Abstract**

*Objectives:* Presentation of LIFEisGAME software, an interactive learning tool that aims to enhance facial emotion recognition skills of children with ASD. This game was developed by the Universities of Porto, Portugal, and Austin, Texas. People with ASD are less likely to attend to faces and are impaired in face discrimination tasks. Recently, technology plays an active part in helping these individuals to understand emotions and recognize facial expressions, trying to enhance social interactions. *Design and Methods:* We recalled to video recording of three case studies during a fifteen minutes game session. Participants were all male (5 to 8 years old), two were verbal and one non-verbal, all diagnosed with ASD. The game was presented on an Ipad 2 (9.7 inches, 1024-768 resolution) in a quiet setting. Parents filled a parental consent form and a questionnaire about their child's technology usage and emotions understanding. Footages were analysed according to: first facial area worked in the avatar, game usability and motivation to play. *Findings and Conclusions:* All children began exploring the avatar's mouth area to create facial expressions. Studies show that people with autism spend more time looking at the mouth and less into the eyes. Participants enjoyed the prototype game but still needs to be simplified. All cases had previous experience with computers games that facilitated game-play. Computers were mainly used by the three participants at home to watch music videos and to play computer games rich in music, bright colours and action. Fear, disgust and surprise were the most challenging emotions to recognize in opposition to happiness and sadness. Parents suggested adding musical stimuli to promote motivation. LIFEisGAME recalls to state-of-art technology to stimulate emotional understanding, bringing positive outcomes to quality of living of children with autism.

**Keywords:** Autism, Emotions, Prototype-game, Children, iPad.

## **CANNABIS FIRST EXPERIMENTATION AND REGULAR USE BY YOUNG PEOPLE AND THEIR CLOSE FRIENDS**

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### **Abstract**

The process of modelling and the social influence are important in the acquisition of new behaviours; being similar models in sex and age the most effective in acquiring new behaviours. This influence regarding to drug consumption has been highlighted by several studies. This paper investigates the relationship between cannabis consumption and close friends' consumption. Sample consisted of 2.137 university students (52.7% female, mean age=21.1; SD= 3.2) who answered an anonymous questionnaire. 63.2% of participants had consumed cannabis at least once and 97% of them were with friends in their first experimentation. The role of the close friends' consumption status is related to the age of the first experimentation and the age of general consumption: participants whose close friends were consumers, had tasted cannabis (or became regular users) on average one year before than those whose close friends were non consumers. Furthermore, there was a high concordance between participants and close friends' consumption. These findings support the use of the Social Learning Theory to explain the acquisition of cannabis consumption amongst young people and should be taken into consideration when developing cannabis consumption prevention programs.

**Keywords:** *Cannabis consumption, Addictive behaviour, Social Learning Theory, Young people.*

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### **1. Introduction**

Cannabis is the most widely used illicit drug in the world, mainly among adolescents and young people (ONU, 2012). The process of modelling and the social influence are important in the acquisition of new behaviours; being similar models in sex and age the most effective in acquiring new behaviours (Bandura, 1986). This influence regarding to drug consumption has been highlighted by several studies (Jiménez-Muro, Beamonte, Marqueta, Gargallo & Nerín, 2009; Scherrer et al., 2008).

### **2. Objective**

This paper investigates the relationship between cannabis consumption and close friends' consumption in university students.

### **3. Method**

A cross-sectional study surveyed 2.137 university students (52.7% female) from the city of Girona (Spain) with a mean age of 21.1 (SD =3.1) who answered an anonymous questionnaire. The self-administered questionnaire includes demographic variables, cannabis consumption, peer cannabis consumption, age of onset, and situation of first experimentation (alone or accompanied by someone).

After permission had been obtained from the person in charge of each faculty, the questionnaires were administered to all students present during normal class time. Participants were assured of their anonymity and confidentiality on their responses.

#### 4. Results

63.2% of participants (61.7% female / 64.7% male;  $n=1.348$ ) had consumed cannabis at least once and 97% of them (96.8% female / 97.2% male) were with friends in their first experimentation.

Table 1 shows mean age of first experimentation with cannabis by close friends cannabis consumption status and gender. The results of the two way ANOVA (close friends cannabis consumption status and gender) did not found neither interaction nor gender significant effect ( $p>.05$ ), but significant effect of close friends cannabis consumption status was found ( $F_{(3,1318)} = 16.0$ ;  $p<0.0005$ ). Scheffé contrasts show that participants whose close friends were cannabis consumers or ex-consumers had tried cannabis as average a year before than those whose close friends were not consumers (having tried cannabis or not).

**Table 1:** *Mean age of first experimentation with cannabis and of regular consumption by close friends' consumption and gender*

Close friends cannabis consumption status		Never tried	Tried but are not consumers	Ex-consumers	Consumers
Age of first experimentation with cannabis	Male				
	Mean	16.1	15.9	15.64	15.3
	(SD)	(2.2)	(1.9)	(1.9)	(1.8)
	n	83	253	42	264
	Female				
	Mean	16.7	16.1	15.6	15.6
Age of cannabis regular consumption (only consumers)	(SD)	(2.8)	(1.7)	(1.6)	(1.7)
	n	87	308	38	251
	Male				
	Mean	17.9	17.1	16.7	16.9
	(SD)	(1.8)	(2.4)	(1.5)	(2.3)
	n	13	49	19	158
Female	Mean	18.1	16.8	16.7	16.7
	(SD)	(3.1)	(2.0)	(2.3)	(1.7)
	n	16	37	15	122

The same trend is found regarding the age of starting regular consumption (table 1) amongst consumers: the effect of best friends cannabis consumption status was significant ( $F_{(3,421)} = 2.9$ ;  $p=.04$ ) but neither interaction nor gender significant effects were found ( $p>.05$ ). Participants whose close friends had not tried cannabis started the regular consumption of this substance as average more than a year later than those whose close friends were consumers ( $p<.05$ ) (table 1).

Furthermore, there was a high concordance between participants and close friends' consumption. The cannabis consumers had more frequently (67.7% male /73.1% female) close friends who were also consumers than the non-consumers (19.6% males /16% females) or ex-consumers (43.9% males /27.7% males). Chi-square test found significant differences in both, males and females ( $p<.05$ ), although these results must be interpreted with caution due to a non-fulfilment of the conditions for the application of the chi-square test.

#### 5. Discussion

The participants' consumption of cannabis was strongly associated with their close friends' pattern of use. Most of the students were with friends during their first consumption. Moreover, they tried this substance and started regular consumption, as average one year earlier if their close friend were consumers. Furthermore, there is a high concordance between the participant and their close friend consumption status. These results are in agreement with

previous research (Jiménez-Muro, Beamonte, Marqueta, Gargallo & Nerín, 2009; Scherrer et al., 2008) and highlight the important role of close friends in young people addictive behaviour.

## 6. Conclusions

These findings support the use of the Social Learning Theory (Bandura 1986) to explain the acquisition of cannabis consumption amongst young people and should be taken into consideration when developing cannabis consumption prevention programs.

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## **COERCION STRATEGIES IN SEXUAL INTERCOURSE IN YOUNG COUPLES: IS THERE RELATIONSHIP BETWEEN SUFFERING AND USING?**

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### **Abstract**

Sexual violence within intimate relationships can have serious implications for the physical and psychological well-being of those who suffer it and may also result in the victim imitating this abusive behaviour. The present study examined whether there is a relationship between suffering and the use of these coercion strategies amongst young adults. The participants were 119 university students (73.3% females) who were all under 26 years old and volunteered to answer an anonymous questionnaire. The results showed that those participants who had been exposed to a particular coercion strategy were also more likely to use this strategy than those who had not been exposed. These findings suggest that being the victim of some forms of sexual violence may result in the victim imitating this behaviour, thereby constituting a risk factor for becoming abusive.

**Keywords:** *Sexual Violence, Coercion Strategies, Young couples.*

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### **1. Introduction**

Sexual violence in intimate relationships can have serious effects on the physical and psychological well-being of those who suffer it and may also result in imitation of this abusive behaviour (Kinsfogel & Grych, 2004). Therefore, sexual violence is a serious social problem which is also difficult to eradicate. In addition, research has shown that there is a progression in the severity of the sexual violence, with the aim of achieving non-consensual sex, usually starting psychologically (manipulation, deception, imposition, etc.) and eventually leading to the use of physical force (Saldivar & Romero, 2009).

### **2. Objective**

This study examined the extent to which there is a relationship between suffering and the use of coercive strategies by young adults in order to obtain sexual intercourse.

### **3. Design**

A cross-sectional survey was carried out.

### **4. Methods**

The sample consisted of 119 university students under the age of 26 years old (73.3% females), who voluntarily answered an anonymous questionnaire. The participants were asked whether they had suffered or had used any of the following coercion strategies, in order to obtain non-consensual sex: emotional blackmail, verbal deception, being very charming and affectionate, verbal threats, physical violence, petting and physical contact, verbal insistence, alcohol or other drug use and getting angry and complaining. The participants were presented with a list of strategies and asked to report whether they had used or had experienced each technique.

## 5. Results

The most common strategies used in order to obtain non-consensual sex were: petting and physical contact (male 88.9% / female 91.9%) and being very charming and affectionate (male 82.1% / female 86.2%). The most violent strategies were much less common: physical violence and verbal threats were used by 7.1% of males and 1.1% of females and 3.6% of males and 4.6% of females, respectively. No significant gender differences were found, with the exception of verbal insistence: more males had used this strategy than females (59.3% vs. 33%,  $p<.05$ ).

Table 1 shows the percentage of participants who had used the different strategies according to whether they had also suffered them. There was a significant relationship between having suffered and having used each coercion technique. Participants who had been victimised using a particular method of coercion were also more likely to have used this method of coercion than those who had not suffered that type of coercion. These relationships were all statistically significant, with the exception of physical violence, although the trend was in the same direction.

**Table 1.** *Participants who had suffered each coercion method according to whether they had also used them (percentages)*

Strategy	Chi-square*	P*	Have suffered		Have not suffered	
			Have used	Have not used	Have used	Have not used
Emotional blackmail	42.7	<.001	57.8	42.2	4.2	95.8
Verbal deception	49.7	<.001	63.2	36.8	3.9	96.1
Being very charming and affectionate		Fisher<.001	92.4	7.6	22.2	77.8
Verbal threats		Fisher=.002	30.0	70.0	1.0	99.0
Physical violence		Fisher=.067	25.0	75.0	0.9	99.1
Petting and physical contact		Fisher<.001	95.4	4.6	0.0	100
Verbal insistence	15.9	<.001	49.4	50.6	7.1	92.9
Alcohol or other drugs use	60.0	<.001	76	24	4.7	95.3
Getting angry and complaining.	11.1	<.05	45.7	54.3	17.1	82.9

\*Results of chi-square test and p-value. If one or more expected frequency was lower than 5 then a Fisher exact test was used.

## 6. Discussion

These findings provide a new perspective for research on sexual violence, which has generally focused on the study of males as coercive agents (Fuertes, Ramos & Fernández, 2007; Tyler, Hoyt & Whitbeck, 1998). Contrary to expectations, the present study found almost no significant gender differences. Perhaps this demonstrates an increase in the social power of women, as research has suggested that as women gain social power their role in relationships will also change and this might lead to an increase their coercive behaviour toward the male (Hines, 2007).

These results also suggest that having been the victim of some form of sexual violence in the past may lead to the victim imitating this behaviour themselves, thereby constituting a

risk factor for becoming abusive. Another possible explanation is that the individuals use the same coercive strategies as their current partner uses.

## 7. Conclusions

Preventive interventions are needed which highlight the progressive nature of coercion strategies, towards increasing levels of violence, in order to reduce the acceptance amongst people who use or suffer from these forms of abuse. Furthermore, interventions are also needed to help young couples improve their communication so that there are no doubts regarding the desire to have sexual intercourse or not.

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## GENDER NORMATIVE BELIEFS AND ALCOHOL CONSUMPTION AMONG UNIVERSITY STUDENTS

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### Abstract

*Introduction:* Studies exploring students' alcohol consumption show the need to provide gender specific feedback intervention. Yet, no study has systematically described gender differences in normative beliefs. Rather they have focused on gender differences in alcohol consumption. *Objectives:* To explore the relationship between normative beliefs and alcohol consumption among students and to describe gender differences in alcohol consumption, normative beliefs and their mutual relationship. *Method:* Data collection was conducted online in 2012 with 1938 university students (79,2% females; M =21,7; SD =2,164) participating. Students were asked about: (1) frequency of alcohol consumption over the last 2 months; (2) quantity of alcoholic drinks; (3) normative beliefs concerning alcohol consumption (frequency, quantity). Pearson and Spearman correlation coefficients, t-tests, U- tests in SPSS 20.0 were used for data analysis. *Findings:* Statistically significant gender differences in normative beliefs were found. Regarding actual alcohol consumption, women's normative beliefs concerning frequency and quantity of alcohol use among females were lower. Moreover, the findings confirmed previous studies about higher alcohol consumption among males as well as positive correlations among normative beliefs and alcohol consumption. *Conclusions:* The research findings confirm the relationship between normative beliefs and alcohol consumption as well as gender differences in alcohol consumption. However, further research should be focused on identifying reasons why women's normative beliefs differ in order for more effective intervention programs to be applied. *Limits:* abnormal distribution of variables, unrepresentative sample, giving socially desirable answers

**Keywords:** Normative beliefs, Consumption of alcohol, University students, Gender.

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### 1. Introduction

Alcohol consumption of university students is characteristic according to the gender difference. By this, males drink more alcoholic drinks and are more likely to experience negative consequences from alcohol than females (Guha, Bass, & Bruce, 2007). Alcohol consumption is associated with many factors which can be described as risk or protective. Normative beliefs along with other personal factors of alcohol consumption (Orosová et al., 2012) can be understood as self-regulation beliefs regarding the relevance of one's social behaviour (Huesmann & Guerra, 1997). Normative beliefs can constitute a problem when they differ from the actual norms and actual behaviour. Existing research confirms that an individual's overestimation of a peer's alcohol consumption has been shown to be associated with an increase in actual alcohol consumption (Guha, Bass, & Bruce, 2007).

### 2. Design

A cross-sectional design was used.

### 3. Objectives

To explore the relationship between normative beliefs and alcohol consumption among students and to describe gender differences in alcohol consumption, normative beliefs and their mutual relationship.



## 4. Methods

### 4.1. Sample

1938 university students (79.2% females;  $M = 21.7$ ;  $SD = 2.164$ ) participated in this study from 4 different universities in the Eastern part of Slovakia completing online questionnaires.

### 4.2. Measures

The questionnaires contained questions on: (1) gender; (2) frequency of alcohol consumption over the last 2 months. This was measured by a single item with possible answers ranging from 1 (never) to 10 (daily or nearly daily); (3) quantity of alcoholic drinks typically consumed when drinking. This was measured by a question where the respondents entered a number of drinks ranging from 0 to 50; (4) normative beliefs concerning alcohol consumption (frequency and quantity) were measured with items formulated consistently with those of alcohol consumption asking about the drinking of the majority of university students e.g. "What do you think, how many times did most of the students from your university consume alcohol over the last 2 months?" This was answered on the same scale as alcohol consumption.

### 4.3. Statistical analyses

Spearman correlation coefficients, t-tests, U-tests were used for data analysis.

## 5. Findings

The study found statistically significant positive correlations between normative beliefs and alcohol consumption for both genders. Spearman correlation coefficients for males were: (1)  $r = 0.19$  between frequency of alcohol consumption and normative beliefs; (2)  $r = 0.46$  between quantity of alcoholic drinks and normative beliefs. Spearman correlation coefficients for females were: (1)  $r = 0.19$  between frequency of alcohol consumption and normative beliefs; (2)  $r = 0.42$  between quantity of alcoholic drinks and normative beliefs. Generally a higher level of normative beliefs regarding alcohol consumption of other students was associated with a higher level of alcohol consumption of the individuals.

Next, the study focused on gender differences in alcohol consumption and normative beliefs. Regarding the alcohol consumption, statistically significant gender differences were found in frequency of alcohol consumption and quantity of alcohol drinks (Table 1). Males were found to drink more frequently and consume more alcoholic drinks than females.

**Table 1:** Gender differences in alcohol consumption

		U	z	$p_a$	mean
frequency of alcohol consumption	males	224115,5	-8,021	<0,001	1159,62
	females				911,58
		t	df	$p_a$	mean
quantity of alcohol drinks	males	14,542	1921	<0,001	5,32
	females				2,86

Regarding normative beliefs, the study found statistically significant gender differences in normative beliefs concerning frequency of alcohol consumption and quantity of consumed alcoholic drinks (Table 2). Females generally showed a lower level of normative beliefs regarding the frequency and number of consumed alcoholic drinks than males.

**Table 2:** Gender differences in normative beliefs

		U	z	p <sub>a</sub>	mean
normative belief concerning frequency of alcohol consumption	males	262250,00	-4,287	<0,001	1071,25
	females				938,85
		t	df	p <sub>a</sub>	mean
normative belief concerning quantity of alcohol drinks	males	4,334	1929	<0,001	9,59
	females				6,99

## 6. Discussion

The research findings are consistent with other studies which confirm a positive correlation between normative beliefs and alcohol consumption (Berkowitz, 2004; Lewis, 2008; Stone, 2012) as well as gender differences in alcohol consumption (Guha, Bass, & Bruce, 2007; Stone, 2012). In addition, the study found statistically significant gender differences regarding normative beliefs which is a new contribution to this topic and therefore emphasises the need to provide a gender specific feedback intervention.

## 7. Conclusions

The research findings confirm that a relationship exists between normative beliefs and alcohol consumption. Furthermore, the findings also confirm gender differences in alcohol consumption and normative beliefs.

Further research should focus on identifying reasons why females' normative beliefs differ from males' in order to construct more effective intervention programs and to explore gender differences in additional variables regarding the accuracy of normative beliefs.

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## QUALITY OF LIFE AND SUBJECTIVE PATTERN OF DISEASE IN PATIENTS WITH MITRAL VALVE PROLAPSE

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### Abstract

The primary aim of this research is to investigate and compare Quality of Life (QOL) characteristics and Subjective Pattern of Disease (SPD) in patients with Mitral Valve Prolapse (MVP) undergoing both medical and psychotherapy treatment. This research was conducted in 1993-2011. We examined 290 MVP patients and 73 healthy subjects. 46 patients were treated with Magnerot; 36 MVP patients with anxiety were treated with Alprazolam; 30 patients received placebo; 18 patients attended rational-emotive therapy courses (16 sessions, individual assessments). During 15 years 31 MVP patients took Magnerot within periodical treatment; 14 MVP patients with anxiety attended systemic integrative psychotherapy on request. In 2008-2011 the control diagnostics was conducted for 132 patients who had been included in research groups in 1993-1996. Psychological testing embraced the assessment of "quality of life" indicators by Visual Analog Scale (VAS) ("well-being" dimension), the Disability Scale (DISS) ("work", "social life" and "personal life" dimensions) and The Ryff Scales of Psychological Well-Being (PWB) as well as qualitative analysis of SPD. MVP patients demonstrated initially lower significant results in all QOL indicators, increased anxiety and a lower level of frustration tolerance in comparison with healthy subjects. According to results, 72,2% MVP patients attended psychotherapy demonstrated valid improvements of QOL self-rating according to VAS, DISS and PWB scales. They had a better ability in recognition of emotional experience, the development of personality reflection and more appropriate SPD. Moreover, medical diagnostics showed a significant reduction in the depth of MVP among patients who had been undergoing a long-term psychotherapy.

**Keywords:** *Quality of life, Psychological well-being, Subjective pattern of disease, Mitral valve prolapse, Anxiety disorders.*

### 1. Problem statement and motivation

Investigation into Quality of Life (QOL) in clinical psychology and medicine becomes increasingly important in the face of pressing need for dynamics assessment of patient's state within medication treatment and psychotherapeutical courses.

Mitral valve prolapse (MVP) is a common cardiac pathology. Researchers note a considerable dissonance between the numerous subjective complaints of patients and the dramatic scarcity of data available in objective medical studies (Gonzalez, et al., 2002; Scordo, 2007; Zinchenko & Pervichko, 2012); they also note a high incidence of anxiety disorders among MVP patients (Scordo, 2007). There are some cases of a reduction in the intensity of clinical symptoms after courses of psychotherapy and antidepressant or anxiolytic treatment (Stavrakaki, et al., 1991; Scordo, 2007).

### 2. Research objectives

The primary aim of this research is to investigate and compare QOL characteristics and features of subjective pattern of disease (SPD) in patients with MVP undergoing both medical and psychotherapy treatment.

### 3. Research design

This research was conducted in 1993-2011 and consisted of 3 stages:

1. The study involved 290 MVP patients and 73 healthy subjects. 46 MVP patients were treated with Magnerot (within six months); 36 MVP patients with anxiety disorders (AD) were treated with Alprazolam (within ten weeks), and 30 MVP patients received placebo (within ten weeks); 18 patients attended rational-emotive therapy courses (16 sessions, individual assessments).
2. During 15 years 31 MVP patients took Magnerot within periodical treatment. 14 MVP patients with AD attended systemic integrative psychotherapy on request (individual assessments).
3. In 2008-2011 the control diagnostics was conducted for 132 patients who had been included in research groups in 1993-1996.

### 4. Research methods

Psychological testing embraced the assessment of QOL indicators by Visual Analog Scale (VAS) (“well-being” dimension), the Disability Scale (DISS) (“work”, “social life” and “personal life” dimensions) and The Ryff Scales of Psychological Well-Being (PWB) as well as SPD study employing diagnostic methods to reveal the types of attitude towards the disease (TAD) (Vasserman & Schelkova, 2003).

The medical part of the study involved a complex of diagnostic procedures aimed at establishing a diagnosis for each patient and at establishing the degree of intensity of clinical symptoms. An assessment of psychopathological status was conducted in accordance with ICD-10 procedure-coding criteria.

Statistical processing of the data was conducted by various methods: calculation of mean values and the average error mean; calculation of the certainty of distinctions between samples (Student t-criterion); exposition of correlations among investigated features in groups of participants (Spearman r-criterion); and the distribution-free Wilcoxon criterion for the analysis of small samples.

### 5. Results

MVP patients demonstrated initially lower significant ( $p < 0.05$ ) results in all QOL indicators, increased anxiety and a lower level of frustration tolerance in comparison with healthy subjects.

Study of SPD features displayed that before treatment the main TAD in present MVP subjects were characterized as hypochondriac, anxious, melancholic and neurasthenic (total of 47%). 16% of the patients would reveal sensitive, egocentric or paranoid types. A harmonious type of SPD was recognized among 18% of MVP patients. This group was completed exclusively with the patients who didn't articulate any complaints about their physical or psychological state. For the rest (19%) of the patients a mixed type of SPD was revealed.

51,8% of participants in the sub-group of MVP patients receiving Magnerot showed statistically significant ( $p < 0.05$ ) improvement in QOL indicators according to VAS, DISS and PWB data (“autonomy” and “purpose in life”). Patients who took Magnerot within periodical treatment for 15 years, testified to stable improvement of QOL indicators. After pharmacotherapy 41,1% of participants in the sub-groups of patients taking Alprazolam or placebo demonstrated an improvement in QOL self-rating according to all methods. Hereafter, valid decrease of all QOL indicators was observed in both groups (“alprazolam” and “placebo”) upon the deferred examination.

72,2% patients who attended psychotherapy demonstrated valid ( $p<0.05$ ) improvements of QOL self-rating according to VAS, DISS and PWB scales.

They had a better ability in recognition of emotional experience, a certain development of personality reflection and more appropriate SPD-types. Moreover, medical diagnostics revealed a significant ( $p<0.05$ ) reduction in frequency and intensity of panic attacks and in anticipatory anxiety of panic attacks, and cardialgia (especially those provoked by emotions) and loops of thermal control among patients who had been undergoing a psychotherapy. Ultrasonic cardiography testified to a significant ( $p<0.05$ ) decrease in MVP (from  $4.2\pm 0.2$  mm to  $3.8\pm 0.2$  mm) among patients who had been undergoing a long-term psychotherapy. The decrease of prolapse depth was observed in all the psychotherapy patients.

The study revealed a positive correlation between the intensity of hypochondriac, anxious, and paranoid SPD-types, low values for most SPD indicators, and occurrence of panic attacks and cardialgia ( $p<0.05$ ).

## 6. Conclusions

The study testified to the fact that life quality of MVP patients may improve as a result of medication and psychotherapy treatment of anxiety disorders. At that the most pronounced positive dynamics was revealed among the patients undergoing psychotherapy.

Within the group of patients attending courses of psychotherapy there was indicated a certain reduction in frequency and intensity of panic attacks and cardialgia, as well as reduction in the depth of MVP. The decrease of prolapse depth was observed among all psychotherapy patients.

Acquired results may be interpreted to confirm the hypothesis of “functional MVP” as potentially probable in anxiety disorders Gonzalez, et al., 2002; Scordo, 2007).

Results of the present study do not only extend the limits of scientific notion of mitral valve prolapse, they help individualize strategies of medical and psychotherapy treatment for MVP patients. They bring in new issues urgent for scientific studies in clinical psychology and medicine at the contemporary stage of science development.

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## STAGES OF CHANGE AND HEALTH PERCEPTIONS IN SMOKERS

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### Abstract

**Introduction:** Transtheoretical Model states that giving up smoking is a process characterized by different stages of change. There is evidence that the beliefs about smoking change with the stages. **Objectives:** To analyse the evolution in health perceptions of smokers by Transtheoretical stage of change. **Methods:** The quality of life (SF-36 health survey) and health deterioration attributed to smoking in 163 current and former smokers, by periodic visits every 6 months for 2 years, was evaluated. We performed three logistic regressions with "action" or "progression" or "relapse" as the dependent variable, and we used the perceptions of health with a difference in effect size > 0.4, adjusted for demographic and smoking history as independent variables. **Results:** The progression stages of change to Action is accompanied by declines in General health (OR 0.42), in Physical function (OR 0.35) and in Physical component summary (OR 0.34). To be in Action is accompanied by a decrease in smoking attribution of deterioration health (OR 0.59) and in Self-evaluate Health Transition (OR 0.59) which means better perceived health than a year earlier. Relapse smoking consumption is associated with lower scores in Mental Health (OR 0.04), in Vitality (OR 0.20) and in Mental component summary (OR 0.1). **Conclusion:** A perceived physical impairment is associated with an approach to quit smoking; smoking cessation is associated with perceived health improvement and relapse with worse mental health. The results are relevant in order to improve smoking prevention and treatment protocols.

**Keywords:** *Smokers, Transtheoretical Model, Health perception.*

## 1. Introduction

Recent data from the World Health Organization indicate that consumption of tobacco is the second leading cause of death worldwide and it accounts for one in ten adult deaths (OMS, 2013). Not only is the life expectancy of smokers reduced but also they usually live out their final years with worse subjective conditions of health than non-smokers, since they report a worse health-related quality of life (Lyons, Lo & Littlepage, 1994)

Transtheoretical Model states that giving up smoking is a process characterized by different stages of change: *Precontemplation* (Smokers are not intending to give up smoking within the next 6 months); *Contemplation* (Smokers are thinking about giving up smoking within the next 6 months); *Preparation* (Smokers are thinking about giving up smoking within the next 30 days); *Action* (Smokers succeeding in not smoking between one day and six months) and *Maintenance* (they succeeding in not smoking for six months or more) .

There is evidence these stages of change are associated with different beliefs about smoking (DiClemente et al., 2001; Fava et al., 1995; Prochaska et al., 2001).

## 2. Objectives

The main aim of this research is to analyse the evolution in health perceptions of smokers by Transtheoretical model stages of change.

## 3. Design

An observational, prospective and longitudinal study was carried out.

## 4. Methods

We evaluated the quality of life (SF-36 health survey) and health deterioration attributed to smoking in 163 current and former smokers by periodic visits every 6 months for 2 years. We performed three logistic regressions with "action" (first six months without smoking) or "progression" (transition from one stage to another prior to action) or "relapse" (return to smoking) as the dependent variable, and we used the perceptions of health with a difference in effect size  $> 0.4$ , adjusted for demographic variables, alcohol consumption, presence of chronic disease, and smoking history (smoking initiation age, number of daily cigarettes and tobacco dependence as measured by the Fagerström test).

## 5. Results

As shown in Table 1, to be in Action is accompanied by a decrease in Smoking Attribution of Deterioration Health (OR 0.59 [95% CI 0.39 to 0.89] and Self-Evaluate Health Transition (OR 0.59 [95% CI 0.40-0.87], which means better perceived health than a year earlier. The progression stages of change to Action is accompanied by declines in General Health (OR 0.42 [95% CI 0.20 to 0.88], in Physical Function (OR 0.35 [95% CI 0.15 to 0.82] and in Physical Component Summary (OR 0.34 [95% CI 0.16 to 0.73]. Relapse smoking consumption is associated with lower scores in Mental Health (OR 0.04 [95% CI 0.00 to 0.45], in Vitality (OR 0.20 [95% CI 0.06 to 0.72] and Mental Component Summary (OR 0.12 [95% CI 0.02-0.66].

**Table 1:** Associations between perceived health variables with a difference in effect size  $> .4^*$  and the smoking change of stage (to be in Action, Progression and Relapse).

Variable**	B	EE	Wald	p	OR	IC 95%	
<i>To be in Action</i>							
SADH	-0,5	0,2	6,2	0,013	0,59	0,39	0,89
SEHT	-0,5	0,2	7,2	0,007	0,59	0,40	0,87
<i>The progression stages of change to Action</i>							
GH	-0,9	0,4	5,2	0,022	0,42	0,20	0,88
PF	-1,1	0,4	5,8	0,016	0,35	0,15	0,82
PR	-0,3	0,2	2,2	0,140	0,73	0,49	1,11
PCS	-1,1	0,4	7,7	0,006	0,34	0,16	0,73
<i>Relapse</i>							
MH	-3,2	1,2	6,8	0,009	0,04	0,00	0,45
V	-1,6	0,6	6,1	0,013	0,20	0,06	0,72
PF	1,7	0,9	3,8	0,052	5,31	0,99	28,55
SADH	0,5	0,6	0,9	0,355	1,73	0,54	5,48
MCS	-2,1	0,9	6,0	0,015	0,12	0,02	0,66

\* Adjusted model for demographic variables, alcohol consumption, presence of chronic disease, and smoking history (smoking initiation age, number of daily cigarettes and tobacco dependence as measured by the Fagerström test).

\*\* SADH Smoking Attribution of Deterioration Health; SEHT Self-Evaluate Health Transition

Dimensions of SF-36: GH General Health; PH Physical Function; PR Physical Role; PCS Physical Component Summary; MH Mental Health; V Vitality; MCS Mental Component Summary

## 6. Discussion

These results suggest that self-reported poor physical health attributed to smoking help the progression to giving up smoking. Furthermore, keeping in Action Stage seems to improve perceived health, especially when there are no health consequences from smoking. These findings are in agreement with the results of previous research (Shaw et al., 2001). Finally, the

maintenance of perceived mental health is essential to reduce the risk of relapse as was found previously (Miguez & Becoña, 1997).

## 7. Conclusions

A perceived physical impairment is associated with an approach to quit smoking; smoking cessation is associated with perceived health improvement and relapse with worse mental health. The results are relevant in order to improve smoking prevention and treatment protocols.

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## **THE ROLE SALIENCE IMPORTANCE TO THE WELL-BEING OF INDIVIDUALS: STUDY WITH A SAMPLE OF ADULTS IN THE CONTEXT OF CAREER COUNSELING AND MANAGEMENT**

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### **Abstract**

The study of role salience in career counseling and management has contributed to a better understanding of the relevance of the articulation that individuals make of their roles between them, and in the different contexts they take part in. The aim of this study is to analyse the role salience in a sample of 57 individuals that have been helped by career and management counseling. The instrument used was the “Salience Inventory”, developed in the “Work Importance Study” (WIS), which measures the relative importance of five life roles (student, worker, citizen, homemaker, and leisure). The results show that an increasing amount of adults cares about other roles, such as study and/or leisure, besides the most frequent ones, work and home. These results are compared with those obtained in WIS, and discussed in the light of individuals contributing to better cope with changes facing new life scenarios. Weave some considerations and reference is made to the development of research on the topic role salience.

**Keywords:** *Career counseling, Well-being, Role salience.*

## **AIPPS: HOW A CLINICAL APPROACH COULD TRANSFORM SPORT PSYCHOLOGY INTO A VALID INSTRUMENT TOWARDS DISADVANTAGE PROBLEMS AND WELL-BEING**

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### **Abstract**

Since 1994, year of its born, AIPPS is specialized in clinical psychology applied to playful and sports activity and principal goal is young disadvantage prevention across sports instrument used with oriented approach to development of character point of view and a well done well being development. Our clinical observation studies defense mechanism used into sports activities, into play, into relationship to identify problems and to introduce right correctives. Mainly methodology is Transactional Analysis because allows the identification of existing relationship-wise and communicative modalities to develop the right approach oriented towards all the aspects of sports interaction dynamics with the possibility to offer remedial actions where necessary. Our projects are usable from different person categories: children, young man and woman, adults normal and disable too. Between children projects we like to remember: "Ares & Athena" project: a new kind of day care center that uses sport, play and drawing to allow child both a sportive training and his growth supervision, both physical and emotive affective growth. Emotive and affective growth is investigated using "signum graphic" analysis, with graphologic method help; "Little Prince" project, specific for elementary school, that allows the complete integration of difficult children and disable children, both physical and mental, into play and sport space of the school using a clinical and playful and sportive method founded on the use of play's rules. Between adults' projects we like to remember "Aus Niguarda" project. This project is born into Spinal Department of Niguarda's hospital in Milan in 2004. Project's goal is to consider persons of this unit like a global unit and help them to use the rehabilitate itinerary like a way to reconquer their autonomy and the new body perception using fencing. This approach help them both in physical and psychic aspect and give them new instruments to approach life with a new point of view. All our projects can use the skill of "Sportech Laboratory", a cybernetic laboratory of Statal University of Milan, Informatics Department. The task of this laboratory is to monitor and to classify the elemento using the informatic language Extensible Mark Up Language (XML) because is important to read the results of our researches in an objective way to make our job repeated from a clinical point of view.

**Keywords:** *Clinic sport psychology, AIPPS methodology, Bullying prevention, Nutrition disadvantage prevention, Childhood wellness.*

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### **1. Introduction**

A.I.P.P.S. (Association International Psychologie et Psycanalyse du Sport), member of FISSP (Federazione Nazionale delle società scientifiche di Psicologia) born in 1994 like the first and the unique o.n.l.u.s. that works with clinical psychology in synergy with sport and playful activities.

### **2. Principal objective**

Principal objective is the prevention of juvenile disadvantage using sport not in agonistic sense, but like an approach oriented towards the harmonious growth and a god development of the personality.

Our studies observe defense mechanism used from person into their sport activity, their play activity, their relationship to individuate problems and suggest them the right remedial action.

### 3. Specific objectives

Our objectives are to develop research and offer services to promote wellness into sport activities and to improve relationship between person, in particular between children from 6 to 14 years old.

Users of this new method are public company that works with youth disadvantage, primary and secondary schools and universities; sport and playful operators, gymnastics teachers, coaches, parents, sport managers, federation executive.

Our in-depth analysis stages are oriented with clinical methodology on: childhood aggressiveness bad processing, sports premature abandonment, athlete bourn-out and operator bourn-out, obstacles towards success or good performance, doping problems disadvantage, performance anxiety, bullying prevention and pulling out, nutrition problems like bulimia and anorexia.

### 4. Method

AIPPS's methodology is Transactional Analysis because it permits to individuate relate and communicational ways to develop the right approach towards sport interaction dynamics.

### 5. Discussion

Our projects are usable from different person categories: children, young man and women, adults, normal person and disable person too.

Between children projects we like to remember:

- “Ares & Athena” project: a new kind of day care center that uses sport, play and drawing to allow child both a sportive training and his growth supervision, both physical and emotive affective growth. Emotive and affective growth is investigated using “signum graphic” analysis, with graphologic method help;
- “Little Prince” project, specific for elementary school, that allows the complete integration of difficult children and disabled children, both physical and mental, into play and sport space of the school using a clinical and playful and sportive method founded on the use of play's rules.

Between adults' projects we like to remember “Aus Niguarda” project. This project is born into Spinal Department of Niguarda's hospital in Milan in 2004.

Project's goal is to consider persons of this unit like a global unit and help them to use the rehabilitate itinerary like a way to reconquer their autonomy and the new body perception using fencing. This approach help them both in physical and psychic aspect and give them new instruments to approach life with a new point of view.

All our projects can use the skill of “Sportech Laboratory”, a cybernetic laboratory of Statal University of Milan, Informatic Department.

The task of this laboratory is to monitor and to classify the elemento using the informatic language Extensible Mark Up Language (XML) because is important to read the results of our researches in an objective way to make our job repeated from a clinical point of view.

### 6. Conclusion

AIPPS's model is a tested model that helps persons discover their potential and overcome their problems (relational or emotive or motor or integration problems).

We developed several projects for every kind of situation and we use sport like an important instrument of work. Our projects are developed for normal and disable persons and often they work together, especially if they are children.

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## LIE TO ME: AN EXPLORATORY STUDY REGARDING FAKING GOOD EXPRESSION ON MMPI-2 AND PHYSIOLOGICAL MEASURES

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### Abstract

Literature data shows how faking good can compromise the validity of the information obtained in assessment. There have been several studies concerning faking good in personality assessment and the MMPI-2 (Minnesota Multiphasic Personality Inventory-2, Butcher, Bem-Porath, Dahlstrom, Graham, Tellegen, & Kaemer, 1989) sensibility to detect it. However, most of these studies privilege artificial situations - simulation settings where instructions are given so that the individual simulates a response attitude. The present study aimed at the characterisation of *faking good* in personality and psychopathology assessment through response to MMPI-2 applied in a natural setting - in real situations, without alteration in the instructions and inserted in the on-going assessment process, maximizing the ecological validity. Another idea was to study faking through objective measures. There are many studies in literature which explore the physiological expression of faking good responses and EDA (electrodermal activity) has been one of the most used and reliable markers. The goal of this study is to characterize faking good behavior in real personality and psychopathology assessment situations, as well as its physiological expression. For such, a differential methodology was used, using quantitative and qualitative data, with intra and inter-participants analysis. We studied a sample of participants from different settings, normal and clinical/forensic (N = 24). Results suggest the occurrence of faking good in both settings. It was also possible to identify different faking good styles: a) 'classical' faking good, detected by the validity scales, as described in literature (see Green, 2000), with longer response times and higher levels of EDA arousal; and b) 'non-classical' faking good, also identified by the validity scales, but with smaller response times and lower levels of EDA arousal. 'Non-classical' faking good is discussed relating to Paulhus conceptualization (1984; Paulhus & John, 1998) regarding self-deception and impression management. The implications and limitations of this study are also discussed.

**Keywords:** *Personality Assessment, MMPI-2, Faking Good, Electrodermal activity.*

### 1. Introduction

Personality assessment is one of the most important features in decision-taking in applied settings. Self-reports have been one of the most used ways to assess personality and psychopathology. However, these techniques have some difficulties. One of them is faking good, which is a conscientious attempt to give a better image of himself, whether by attributing positive characteristics or by diminishing difficulties.

There are many perspectives on faking good. Paulhus 'Social desirability' theory stands that there are two personality features in social desirability: Self-deception, which is highly related to personality constructs (Paulhus, 1991), and impression management, wherein some individuals adjust their answers to give a socially positive self-image.

One of the many ways to control faking good in assessment is MMPI-2, a self-report that has scales that identify and assess the presence of response distortions, namely faking good, increasing the trust in the assessment results.

Besides, the literature about physiological measures shows that physiological changes may indicate the level of credibility of the statements of an individual, so it may be a different way to detect response distortions. Specifically, EDA has many advantages: is an objective marker, non-verbal and involuntary and relatively free from response bias. This assumption is supported by some literature evidences; first of all, faking behavior will cause an autonomous nervous system arousal, which will reflect in changes in the skin conductance response. Secondly, when people are more attentive to a situation, there is a greater EDA arousal and finally deceiving leads to a greater EDA response magnitude, so it may help us to detect faking good responses. Finally, the response time. Literature on faking good show that faking

responses take time, when compared to honest ones (Robie *et al*, 2007), so this may also be a good indicator of response distortion.

## 2. Goals

The general goal of this study is to characterize faking good behavior in personality and psychopathology self-assessment through the association of self-report and physiological arousal. Specifically, we intend to identify and differentiate MMPI-2 profiles that indicate faking good and the potentially arousal patterns associated. In that sense, the specific goals of the study are: to categorize MMPI-2 profiles according to faking good markers; to analyze and to compare the behavior of the groups regarding the EDA response and to analyze qualitatively the EDA arousal and MMPI-2 profiles in faking good cases.

## 3. Design

The sample of this study was constituted by two setting: a clinical/forensic and a normal setting. The first had 13 individuals with clinical complaints and cases referred by the court, in an on-going assessment processes. The second one has 11 individuals without clinical diagnosis or therapy. The global sample had 24 participants, aged 18 to 50. Regarding the mental health, the Clinical/forensic group included individuals with anxious and depressive symptomatology. There were no cases of serious clinical or personality disturbance or history of admissions.

The instruments used were: Sistema BioPLUX research, for Physiological measure recording and MMPI-2, in a Portuguese experimental version (Silva, Novo, Prazeres, & Pires, 2006), in cards version. About the application, it was a self-administration method, with Physiological measure recording and there were brief pauses associated.

Regarding the analysis of the results, for MMPI-2, we considered results low when they were below T40 and high when they were above T65. For the analysis of the EDA results, there was used a pre-established criteria for considering that an arousal response has occurred and also to measure its level. The participant's results were divided into four groups, regarding the setting and whether they had faked good in MMPI-2.

## 4. Results and Discussion

The first conclusions of this work are: regarding MMPI-2, there are faking good response sets and they are more prevalent in the clinical/forensic group. About Eda, we found out that Arousal is not common (only about 15%).

**Table 1:** *Differences between groups (setting): Items with arousal:*  
Total number, Number of items with intense arousal and Number of validity with arousal.

Differences between groups:	Normal Group (n = 10)	Clinical/forensic Group (n = 13)
Items with arousal: Total number	-	+
Number of items with intense arousal		
Number of validity with arousal	-	+

In table 1, we can see that the clinical/forensic group is more aroused in the total numbers of items, but also in the validity items. One possible explanation is that there is a greater involvement with the assessment and consequently greater information processing which leads to more arousal. Besides, arousal not only relates to normal content items but also with clinical content items which they recognize as relevant.

**Table 2:** *Differences between groups (condition): Items with arousal:*  
Total number, Number of items with intense arousal and Number of validity with arousal.

Differences between groups:	Non-faking group (n = 19)	Faking group (n = 4)
Items with arousal: Total number		
Number of items with intense arousal	-	+
Number of validity with arousal		

Table 2 show that the faking group has more items with intense arousals, but there are no significant differences in the arousal regarding the total number of items nor the validity

items. So, why are there no differences between faking and non-faking groups? This may be due to the clinical condition, present in both groups, which may obscure the comparison. Besides, participants from the faking group do not identify danger on items with non-clinical content, they answer honestly therefor, there are no notable arousal. Finally, regarding the validity scales, they have opposite contents, which may also contribute to a greater difficulty in seeing the differences.

**Table 3:** *Differences between groups (faking type): Items with arousal:*  
Total number, Number of items with intense arousal and Number of validity with arousal.

5. Differences between groups:	Classical faking group	Non-classical faking group
Items with arousal: Total number	+	-
Number of items with intense arousal	+	-
Number of validity with arousal	+	-

In table 3, we can see, the classical faking group has more arousal in all the 3 criteria.

Finally, the response times. The non-classical faking group takes much less time than the classical group. Distortion takes time, so how can this group be so fast? One of the possible explanations is the fact that self-deception and impression management, as integrated personality tendencies, may cause the responses to reflect the truthful way how the individual sees himself, leading to more spontaneous responses, even though they are still detected by the validity scales as faking good.

## 5. Conclusions

The first conclusion is that the EDA arousal response isn't trivial, so when it occurs, it must be explored. Secondly, Clinical/Forensic Group has the most frequent EDA arousal pattern, which may be explained by a greater involvement with the assessment process and therefore a longer information process. Third, faking good group as the most frequent and intense arousal pattern and also the longer response times, which may be explained by a complex decision-making process to answer accordingly to their goals, leading to a greater information process. Fourth, if we combine the Clinical/forensic condition and faking good condition, we have the highest arousal. Fifth, the classical faking group has a high arousal frequency, a large response time, and the relation between arousal and T scores is inverse and differentiated. Finally, the non-classical faking group has a very low arousal frequency and a much reduced response time. This study has some limitations, such as the fact that it is an exploratory study, so the explanations to explain the results are part of a bigger universe of possible explanations. Besides, most of the sample is higher educated, so the sample was not representative and the homogeneity of the sample may have also compromised the results.

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## PERUVIAN TEACHERS' PERCEPTIONS ABOUT AUTISM AND IMPLICATIONS FOR EDUCATIONAL PRACTICE

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### Abstract

**Objectives:** There has been little research on teachers' perceptions of autism and how these may be associated with their beliefs on the effectiveness of education and the instructional goals practice. The present study was undertaken to evaluate regular teachers' knowledge of the causes of autism and the main behavioral features of the disorder. Thus, the goal was to obtain information regarding specific training needs as well as to pinpoint areas of potential misunderstanding of regular teachers. **Design:** Data were analyzed descriptively. **Method:** We examined the perceptions of a sample of 47 Peruvian teachers with a professional experience between 1 to 22 years. To assess teachers' perceptions we used a questionnaire of 14 items, adapted from Stone (1984), Mavropoulou and Padelidu (2000). **Findings:** Teachers generally feel somewhat prepared (44.7%) to handle children with autism in their classrooms. Teachers believed that the condition is due to a neurological origin (63%) and that neurological examination is the most reliable for diagnosis (78%). However, in their answers about causes it was apparent that the psychogenic myth still persisted. They are agreed on the prevalence of the boys (93%) over girls (6%). Teachers seemed to have a deeper knowledge of autism, as they selected autism-specific characteristics and provided a fuller description of the disorder. Most teachers know that it is a disorder that is not cured (93%). **Conclusions:** The teachers were familiar with the notion of the autistic continuum and the distinct identity of autism that despite having little training about autism. Also, teachers seemed to have a deeper knowledge of autism, Teachers were also more goal-oriented, promoting instruction in major areas in which children with autism experience problems. Despite the small number of teachers involved, the findings of this study provide several important implications for the pre-professional and continuing education for teachers.

**Keywords:** *Autism, Perceptions, Education, Teachers.*

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### 1. Introduction

The triad of impairments associated with autism covers a range of behaviors, characterized by impairments in social reciprocity and/or communication, stereotyped behavior, and restricted interest. Prevalence estimates range from 0.07% to 1.8% (Fombonne, 2009)

There has been little research on teachers' perceptions of autism and how these may be associated with their beliefs on the effectiveness of education and the instructional goals practice. Stone and Rosenbaum (1988) found that many teachers considered autism to be an affective disorder with emotional aetiology, and they also had the difficulty in differentiating between autism and childhood schizophrenia. Furthermore, Mavropoulou and Padelidu (2000) compared perceptions about autism in regular and special teachers. Results revealed that both groups of teachers show some confusion in regard to the causes of the syndrome, and they identified different instructional goals in the treatment of autism. However, special teachers were more likely to identify correctly the specific characteristics of autism.

Thus, the present study was undertaken to evaluate Peruvian regular teachers' knowledge of the causes of autism and the main behavioral features of the disorder. Thus, the goal was to obtain information regarding specific training needs as well as to pinpoint areas of potential misunderstanding of regular teachers.



## 2. Methods

### 2.1. Participants

Forty-seven Peruvian regular teachers participated in this study. The teachers' experience spanned all grade levels, and ranged from 1 to 22 years (44.7% had more than 10 years of experience, 38.3% had between 5-10 years of experience and only 17% had less than 5 years of experience). Forty-six were women (97.9%) and one was man (2.1%). Only 23.4% had experience with autistic students.

### 2.2. Instrument

The questionnaire used was an adaptation of those used in previous research (Mavropoulou & Padelia, 2000; Stone, 1984). This instrument was developed to assess beliefs and knowledge about autism. Item 1 focused on self-efficacy in the education of autistic students. Item 2 focused on the aetiology of the syndrome. Items 3, 4, 5, 6, 7, 8, 9, referred to general knowledge about autism and teachers had to select only one from a choice of answers. Item 10 addressed the behavioral characteristics of autism. Teachers were required to select as many of the 22 statements describing various aspects of autism as they wished. The last items, 11, 12, 13 and 14, dealt with teachers' views on the treatment of the disorder.

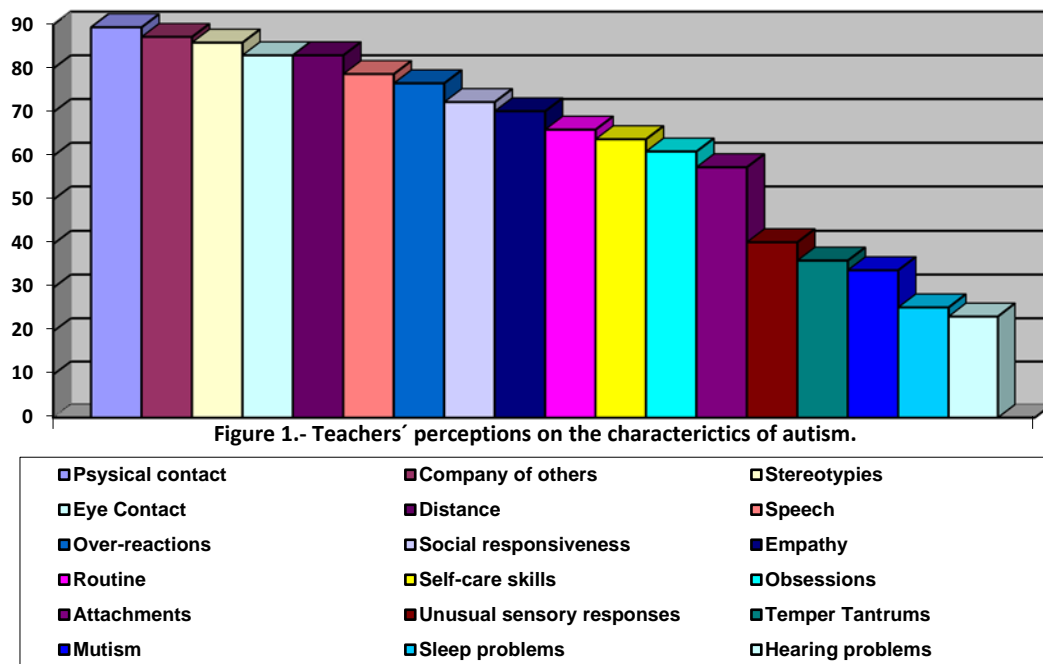
## 3. Results

Data were analyzed descriptively. Teachers generally feel somewhat prepared (44.7%) to handle children with autism in their classrooms. The majority of teachers recognized neurological origin (63.8%) and heredity (46.8%) as playing major roles as causes of autism, 29.8% believed that the condition was due to lack of maternal responsiveness, and 31.9% point out social circumstances as causal factors. The majority of teachers (93.6%) stated that autism is more common in boys over girls (6%); the disorder is not always accompanied by mental retardation (83%); it is not an early form of schizophrenia (100%) and 70.2% of the teachers believe that autistic children eventually outgrow autism. Teachers believed that neurological examination is the most reliable for diagnosis (78%). However, there was more confusion with regard to the age of onset of the condition: 68% indicated that it is fully developed before first year, and 25.5% suggested that autism is not fully developed until the age of 3 years.

Teachers perceived the following characteristics (in order) as the most significant features of children with autism (see figure 1): does not seek physical contact with others (89.4%), does not seek the company of others (87.2%), has rigid or stereotyped activities (85.9%), lack of eye contact (83%), seems distant (83%), does not develop speech (78.7%), overreacts to noise (76.6%), lack of social responsiveness (70.2%), does not understand the feelings of others (70.2%), avoids in the daily routine (66%), does not have self-care skills (63.8%), has obsessions (61%), does not attach to a person (57.4%), has unusual sensory responses (40.4%), has temper tantrums (36.2%), mutism (34%), has sleep problems (25.5%) and has hearing problems (23.4%). Other four features were excluded as key characteristics by all teachers (0%).

The majority of teachers (93.6%) agreed that autism cannot be cured. However, they thought that psychotherapy (42.6%) can be effective in the treatment of autism. Around 80.9% of regular teachers were positive to the idea of integration.

As far as the instructional priorities for children with autism were concerned, regular teachers promoted mostly: develop affective relationships with others (95.7%), expression of desires using language (83%), playing with other children (70%), reduction of his tendency to self-injury (55.3%) and, reading and writing (53.2%).



#### 4. Conclusions

Teachers agreed on the excess of autism in boys over girls, and their perceptions that autism is not always accompanied by mental retardation and is not a form of psychosis were consistent with literature. The teachers were familiar with the notion of the autistic continuum and the distinct identity of autism that despite having little training about autism. However, in their answers about causes it was apparent that the psychogenic myth, accredited by clinicians with a psychoanalytic orientation, still persisted in 30% of the teachers. Also, teachers seemed to have a deeper knowledge of autism, as they selected autism-specific characteristics and provided a fuller description of the disorder. They were also more goal-oriented, promoting instruction in major areas in which children with autism experience problems. In particular, they promoted interventions which focus on challenging aspects of behavior that may hinder their successful learning.

Despite the small number of teachers involved, the findings of this study provide several important implications for the pre-professional and continuing education for teachers, especially teachers needed be prepared in evidence-based practices for children with autism (Lerman, Vorndran, Addison, & Contrucci-Kuhn, 2004).

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## GIFTEDNESS: PERUVIAN TEACHERS' PERCEPTION

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### Abstract

*Objectives:* Teacher's conceptions of giftedness and their beliefs about the abilities of their students are areas of critical consideration related to identification and talent development practices in primary school classrooms. Thus, this descriptive study examined the perceptions of giftedness and identification procedures held by experienced Peruvian teachers. *Design:* Data were analyzed descriptively. *Method:* Forty-seven regular teachers with a professional experience between 1 to 22 years participated. To assess teacher's perceptions we used a questionnaire of 37 items, adapted from Fernández (2002). *Findings:* Regular teachers still held a narrow conception and perception and perceptions of giftedness. They had not experience with gifted children (48%). Teachers feel that the most popular features on giftedness are high CI (68%), self-motivation (66%) and the capacity for handling a lot of information (68%). In contrast, the features less popular were: good social interaction (40%), creative (45%) and self-confidence (34%). The methods used to evaluate a gifted are intelligence test (85%) and specific aptitude test (66%). Also, teachers recognize that giftedness have significant negative effects on learning (91%). The vast majority of teachers agree that they need more information and training (94%), suggesting to create a specialized team (89%) to improve achievement in the class. *Conclusion:* Results are consistent with the deficit model, in which teachers are less likely to notice abilities and more likely to focus on problems. Results suggest several recommendations for further research, as well as possible modifications of graduate and postgraduate teacher education programs. Teachers ins service want to know more about giftedness, especially because they do not feel well prepared and know they need to have more information about it.

**Keywords:** *Giftedness, Teachers, Conceptions, Perceptions.*

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### 1. Introduction

Teacher's conceptions of giftedness and their beliefs about the abilities of their students are areas of critical consideration related to identification and talent development practices in school classrooms. Giftedness has been described as a complex of intelligence, aptitudes, talents, expertise, motivation and creativity that lead an individual to productive performance in intellectual, scientific, leadership, creative, artistic, dramatic, musical, mechanical and physical areas (Feldhussen, 1986). One point of view is that given these extraordinary skills, gifted students need to be educated through different programs and with different strategies. The main reason for giving a different kind of education to these students is to make their own psychological development healthier and to use their own potential for the benefit of the society in which they live. Teachers' roles in the education of gifted students may require that they see the gifted student function in different ways in the classroom. Gifted teachers face some problems in the teacher education process in relation to gifted education and appear to need specific help in areas such as, perceiving gifted student's signals, program differentiation, setting objectives, attitudes, measurement and assessment techniques, and individual and program planning. In comparison with other countries, Peru don't have investigation about this topic. The study will be of particular interest to countries that are at an early stage in the development of gifted education. Thus, this descriptive study examined the perceptions of giftedness and identification procedures held by experienced Peruvian teachers.

## 2. Method

### 2.1. Participants

Forty seven regular teachers participated. Their experience spanned all grade levels, and ranged from 1 to 22 years of experience (44,7 % had more than 10 years of experience, 38,3% had between 5-10 years of experience and only 17% has less than 5 years of experience). Forty six were women and only one was man.

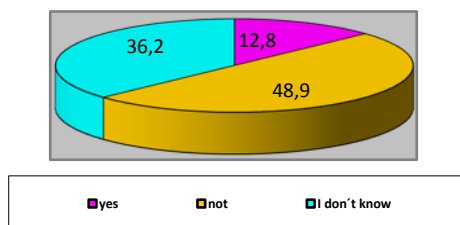
### 2.2. Instrument

To assess teacher's perceptions we used a questionnaire of 37 items, adapted from Fernández (2002). The survey for the larger study consists of six sections: 1 Conceptions of Giftedness (knowledge, characteristics of teachers about gifted and different procedures of identification of talent), 2 Believes and opinions (teachers believes about the meaning and manifestations of giftedness), 3 Difficulties (that teachers may find when education must respond to the needs of gifted students), 4 How to improve educational services? (in current progress), 5 Training and needs (on teachers about gifted), 6 Strategies (used most often serve gifted students).

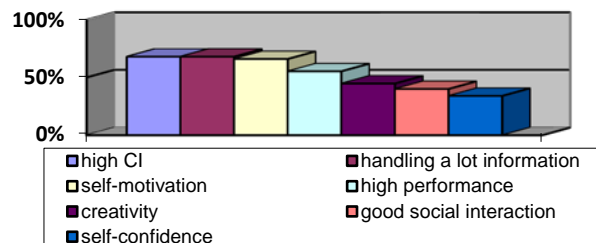
## 3. Results

Data were analyzed descriptively. Regular teachers still held a narrow conception and perceptions of giftedness. They had not experience with gifted children (48,9%), only a certain percentage (12,8%) think have had experience (see Figure 1). Teachers feel that the most popular features on giftedness are high CI (68%), self-motivation (66%) and the capacity for handling a lot of information (68%). In contrast, the features less popular were: good social interaction (40%), creative (45%) and self-confidence (34%) (see Figure 2).

**Figure 1:** *Experience with gifted children*

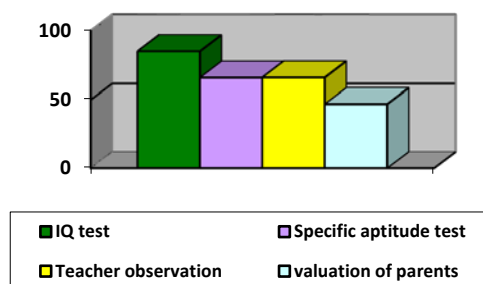


**Figure 2:** *Characteristics*

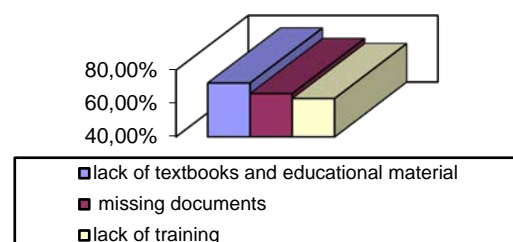


The methods used to evaluate a gifted are intelligence test (85%) and specific aptitude test (66%) (see Figure 3). Also, teachers recognize that giftedness have significant negative effects on learning (91%); especially when there are difficulties in the classroom as the lack of textbooks and educational materials (72%), lack of documentation (66%) and training (64%) (see Figure 4).

**Figure 3:** *Identification test*

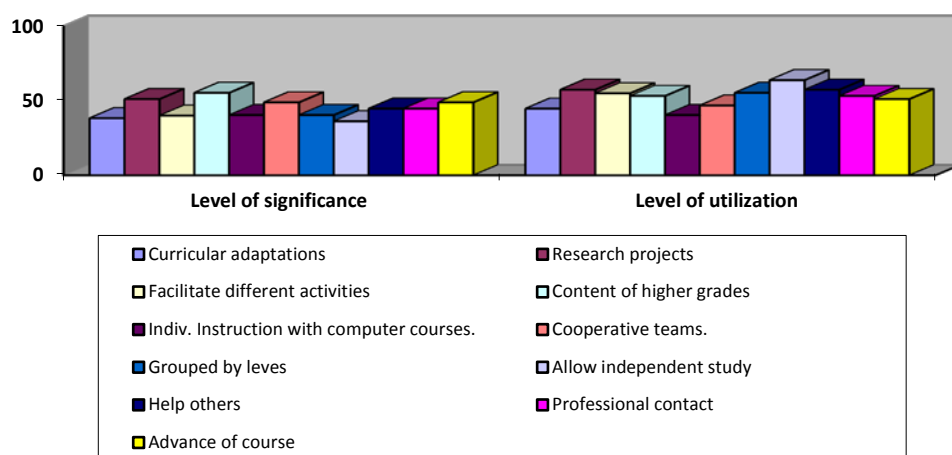


**Figure 4:** *Difficulties in classroom*



The vast majority of teachers agree that they need more information and training (94%), suggesting to create a specialized team (89%) to improve achievement in the class. There is some consistency on strategies that are considered important and which could be used in classroom; in relation to the provision of different activities at different levels particularly (40% vs. 27%) and allowing independent study (36% vs. 63%) (see Figure 5). This highlights the low information about gifted by teachers in Perú.

**Figure 5: Strategies**



#### 4. Conclusions

Results are consistent with the deficit model, in which teachers are less likely to notice abilities and more likely to focus on problems. Results suggest several recommendations for further research, as well as possible modifications of graduate and postgraduate teacher education programs. Teachers ins service want to know more about giftedness, especially because they do not feel well prepared and know they need to have more information about it. The results of this study suggest that even experienced teachers of gifted may have a narrow perception of giftedness (Speirs, Adams, Pierce, Cassady, & Dixon, 2007). The results of the survey indicate a need for more professional development on the characteristics of giftedness, can be taken for implications and need for future research.

As with any study, methodological limitations are present. First the sample is reduced, which results not strengthened. Second the lack of experience with gifted children reveals the participants doubt in filling the questionnaires, and that can show some difference between theoretical knowledge and practical knowledge.

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## WORK SATISFACTION AND SOCIAL WELL-BEING OF TEACHERS ACCORDING TO HEADMASTERS' SUPPORT AND TEACHERS' PERSONALITY TRAITS

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### Abstract

**Objective:** The study dealt with satisfaction at work and social well-being at school amongst primary school teachers in Eastern Slovakia. Well-being in schools is one of the preconditions for nonspecific prevention of risk behaviour. The focus was on the differences in levels of satisfaction at work and social well-being at school dependent on the perceived supportive behaviour of the headmaster (either the engaging or distancing type) as well as the personality traits of the teachers (neuroticism, extraversion, agreeableness, openness, conscientiousness). **Design:** Cross-sectional survey. **Methods:** The research sample consisted of 256 primary school teachers (89.6% women, mean age 42.14, SD 9.65). The concept of social well-being by Keyes (1998) was used. The IASR-B5 questionnaire (Trapnell, Wiggins, 1990) was used to detect personality traits. Supporting behaviour of headmasters was measured by the SAS-C scale (Trobst, 2000) and satisfaction at work was measured by one of The Life Satisfaction Questionnaire subscales (Rodný, Rodná, 2001). The data was analysed using non-parametric tests of difference between the groups with the highest and lowest levels of given variables (the perceived type of supportive behaviour of the headmaster and the Big Five personality traits). **Findings:** Engaging behaviour of the headmaster was associated with high levels of teachers' work satisfaction as well as social well-being at school. On the contrary, distancing behaviour of the headmaster was associated with low levels of these variables. Emotionally stable and conscientious teachers were more satisfied at work and had higher levels of social well-being. Social well-being was also higher in the group of more extraverted and agreeable teachers. **Conclusions:** The results confirmed a significant difference in work satisfaction and social well-being of teachers according to the level of supportive behaviour of school headteachers and personality traits. The application of our findings may increase well-being in schools.

**Keywords:** *Satisfaction at work, Social well-being, Teacher, Engaging and distancing behavior, Personality traits.*

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### 1. Introduction

Factors influencing well-being can be broadly divided into external (related to the environment in which one lives) and internal (related to personality structure). Social support is among the important factors in improving well-being (Blatný, 2005). The importance of support from superiors on well-being of employees was outlined by Smith (2008).

### 2. Design

A cross-sectional design was used.

### 3. Objectives

The aim of the presented study was to establish how personality variables and social support from the school head influence social well-being and work satisfaction of teachers.

### 4. Methods

#### 4.1. Sample

The research sample consisted of primary schools teachers. The total number of participants was 265 (89.6% women). The average age of participants was 42.14 years. The average length of teaching experience was 17.92 years.

Data collection was carried out in January and February 2011. Participants were selected at random, based on the available sample of teachers.

#### 4.2. Measures

To measure work satisfaction, the subscale Satisfaction with work of Questionnaire of life satisfaction by J. Fahrenberg, M. Myrteka, J. Schumacher and E. Brahler (Rodná & Rodný, 2001) was used (Cronbach  $\alpha = 0.862$ ).

Social well-being at school was measured by items from Keyes (1998). The items utilised concerned school environment. Cronbach  $\alpha$  was 0.828.

Personality traits were studied using the IASR-B5 questionnaire (Trapnell & Wiggins, 1990), which included the Big Five factors, as well as interpersonal traits based on the circumplex model. Cronbach  $\alpha$  ranged from 0.539 to 0.892.

To identify supportive behaviour of the school headmaster, the Support Actions Scale Circumplex (SAS-C) methodology was used (Trobst, 2000). The questionnaire measured eight types of supportive behaviour (directive, arrogant, critical, distancing, avoidant, deferential, nurturant, engaging). Cronbach's  $\alpha$  ranged from 0.690 to 0.820.

#### 4.3. Statistical analyses

The data was analysed using non-parametric tests (Mann-Whitney U-test) of difference between the groups with the highest and lowest levels of given variables (the perceived type of supportive behaviour of the headmaster and the Big Five personality traits). Work satisfaction and social well-being were the dependent variables.

### 5. Findings

Engaging behaviour of headmasters was associated with high levels of teachers' work satisfaction as well as social well-being at school. On the contrary, distancing behaviour of headmasters was associated with low levels of these variables (Table 1).

**Table 1:** Differences in teachers' Work Satisfaction and Social Well-being as related to the level of Engaging/Distancing headmasters' behaviour

	Engaging behaviour	Distancing behaviour						
	U-test	sig	Median Group 1	Median Group 2	U-test	sig	Median Group 1	Median Group 2
Work Satisfaction	1662.5	.000	31	39	512	.001	38	33
Social Well-being	1639	.000	65	72	383.5	.000	75	66

Group 1 – low level;  
Group 2 – high level

Emotionally stable and conscientious teachers were found to be more satisfied at work and have higher levels of social well-being. Social well-being was also higher in the group of more extraverted and agreeable teachers (Table 2).

**Table 2:** Differences in teachers' Work Satisfaction and Social Well-being as related to the level of Neuroticism, Extraversion, Conscientiousness and Agreeableness of their headmasters

	Work Satisfaction	Social Well-being						
	U-test	sig	Median Group 1	Median Group 2	U-test	sig	Median Group 1	Median Group 2
Neuroticism	311	.000	40	31	436	.000	73	66.5
Extraversion	-	-	-	-	1513	.004	66.5	72
Conscientiousness	1328	.000	31.5	39	1173.5	.009	66	73
Agreeableness	-	-	-	-	1192	.019	63.5	72

Group 1 – low level  
Group 2 – high level

## 6. Discussion

As in other research studies (Gomez et al., 2009; Hayes & Joseph, 2003; Joshanloo & Nosratabadi, 2009; Van den Berg & Pitariu, 2005), this work also supports the link between personality traits (neuroticism, extraversion, conscientiousness) on one hand and well-being and work satisfaction on the other.

The findings of this study are also consistent with Smith (2008) who concluded that leadership (which includes respectful, open behaviour providing social support, inspirational motivation and intellectual stimulation) had a positive impact on the well-being of employees.

Work satisfaction and social well-being of teachers is negatively affected by the behaviour of their headmasters, which the teachers perceived as distancing, even if it was without a sense of superiority but there was no emotional involvement.

## 7. Conclusions

The results support the hypothesis between a significant relationship of teachers' work satisfaction and social well-being and the supportive behaviour of school headmasters as well as their personality traits. The application of our findings may increase well-being in schools.

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## EARLY INTERVENTION IN CHILDHOOD: STUDY ON THE EVALUATION OF THE SATISFACTION OF FAMILIES

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### Abstract

Early intervention with children at risk is a unique opportunity to influence positively their future development. This paper presents a study with thirty-five mothers, supported by a Local Intervention Team, in order to assess parental satisfaction on services provided. This desire is particularly relevant not only for the impact they can have on improving the quality of their work, but also in promoting parenting skills and involvement of families in the intervention processes. It is an exploratory study and the results show a high degree of satisfaction in the following dimensions: support to parents, model and support structure and administration of service and less satisfaction areas: dissemination of their rights and social environment in the relationship between parents and professionals.

**Keywords:** *Early childhood intervention, Local Intervention Team, Satisfaction of families.*

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### 1. Introduction

This research proposes to assess the level of satisfaction of families from a county in northern Portugal, in view of the support provided by Local Intervention Team, (LIT), within the scope of Early Intervention in Childhood (EIC), so as to ensure quality practices that best fit the needs of children and their families in various situation of development risk.

### 2. Conceptual framework

The EIC is supported by multidisciplinary services provided to children under five years of age. "Its main objectives are: to promote the health and well-being of the child; foster the emergence of skills; minimize developmental delays, remedy existing or emerging disabilities, prevent functional deterioration; promote parental adjustment and the overall functioning of the family" (Meisels & Shonkoff, 2000, quoted by Soriano, 2005, p.16). The scientific production on the EIC argues that family-centered precocious intervention/early childhood intervention had its origin in the transactional model of Sameroff and Chandler (1975) and the perspectives of Bronfenbrenner (1979) on the ecological and social systems (Ahmed, 2009; Pereira 2009, Serrano 2007). According to Tegethof (2007), a family-centered practice goes beyond the concept of "parental involvement" as it does not merely inform and educate the family to work with their children, but presupposes including them in decision making processes.

### 3. Objectives

The overall objective of this study relates to the need to assess the degree of satisfaction of families, who are supported under the EIC, in a county of the northern area of the country, by a Local Intervention Team (LIT). The aim is to find out to what extent the intervention is perceived as family-centered (among different dimensions to be evaluated: *parental support, child support, social environment; relationship between parents and professionals; support model; parental rights; service location and connection, structure and administration of the*

service) and which areas of the service show major and minor weaknesses, so as to improve practices promoted by professionals.

#### 4. Methodology

This is a study of a qualitative nature, descriptive and exploratory, following a non-experimental type of plan, since the causes and variables under analysis are not manipulated, the phenomenon and existing situations being studied and the facts being described as they present themselves (Sampieri, Collado & Lucio, 2006).

#### 5. Population and Sample

In this investigation, were included all families supported by LIT in the county under study, so the sample consists of thirty-five mothers residing in an urban environment, with children, supported by team aged between one and four years. These children show disabilities or risk of severe overall developmental delay, including motor and language difficulties.

#### 6. Data collection and instrument

As an instrument for data collection the Scale of Satisfaction of Families in Early Intervention in Childhood (SSFEIC), a Likert-type<sup>1</sup> scale was used. The scale consists of sixty-six items in eight dimensions: i) *parental support*, ii) *child support*, iii) *social environment*, iv) *relationship between parents and professionals*, v) *support model*, vi) *parental rights*, vii) *service location and connections* viii) *the structure and administration of the service*.

#### 7. Results and Discussion

The results obtained (Table 1) show that, in general, families are satisfied with the services provided to them. It was found that the higher average values, revealing greater satisfaction, pertain to the following dimensions: *parental support* ( $\mu = 29.41$ ); *support model* ( $\mu = 23.38$ ), *child support* ( $\mu = 18.00$ ); *structure and administration of the service* ( $\mu = 15.24$ ). In contrast, the lowest averages were obtained in the following dimensions: *parental rights*, ( $\mu = 4.31$ ), *social environment* ( $\mu = 4.82$ ), *service location and connections* ( $\mu = 6.62$ ), *relationship between parents and professionals* ( $\mu = 7.75$ ).

**Table 1: Results obtained with SSFEIC**

Dimensions	Mean	Mode	Median	Standard deviation	Minimum	Maximum
Parental support	29,41	20,00	29,00	6,62	20,00	41,00
Child support	18,00	20,00	18,00	3,492	12,00	24,00
Social environment	4,82	3,00	5,00	1,55	3,00	9,00
Relationship between parents and professionals	7,75	6,00	7,00	1,67	6,00	12,00
Support model	23,38	23,00	23,00	3,67	18,00	31,00
Parental rights	4,31	3,00	4,00	1,76	3,00	10,00
Service location and connection	6,62	5,00	6,00	1,98	3,00	10,00
Structure and administration of the service	15,24	13,00	14,00	2,86	12,00	23,00

It appears that mothers show greater satisfaction with the support that is given to the family / parents ( $\mu = 29.41$ ) than that which is given to the child ( $\mu = 18.00$ ). These data are consistent with the recommendations for best practices in EIC as part of a family-centered

<sup>1</sup> Translated and later on adapted to the Portuguese context, by the representatives, in Portugal of the Eurlvaid Group, based on the original scale, conceived/developed in 1999, by the aforementioned Group, under the designation *European Parental Satisfaction Scale About Early Intervention*.

approach, recognizing its importance as a key element in the process of decision making and the provision of childcare. Regarding the dimension *support model*, there is a high level of satisfaction ( $\mu = 23.38$ ), which may indicate that families rely on the skills of professionals. In the dimension *structure and administration of the service* ( $\mu = 15.24$ ), the results show that overall, parents are satisfied with the support provided, leading families to feel more confident to support their children. The sample shows less satisfaction in the dimension *parental rights* ( $\mu = 4.31$ ), which may demonstrate weaknesses in the divulgation of the rights of the parents of children with developmental problems, namely with concern to their decision-making powers. Also lower satisfaction is evidenced by *social environment* ( $\mu = 4.82$ ), which may show that the support given does not respond to the needs felt in issues related to the informal support network. Another dimension with less satisfaction is *service location and connection* ( $\mu = 6.62$ ), which shows that most mothers are unaware of the services of EIC and do not know how to resort to them. The mothers show even less satisfaction in the dimension *relationship between parents and professionals* ( $\mu = 7.75$ ), where the respect of technicians for the family, the closeness, complicity and role of the family in the intervention process are at stake. Given these results it seems important not only to ensure an active participation of families in the support, but also empower them for that participation.

## 8. Conclusions and proposals for improvement

Given the empirical data of this study, exploratory in nature, we conclude that, overall, mothers observed proved to be satisfied with the intervention of LIT, especially in the dimensions: *parental support*; *support model*, *child support*, and *structure and administration of the service*. Satisfaction levels obtained in lower dimensions must, however be valued: *parental rights*, *social support*, *service location and connection*, *relationship between parents and professionals* to promote the strategies considered in the discussion of the data.

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## **SOCIO-EMOTIONAL COMPETENCES IN PORTUGUESE YOUNGSTERS: DEVELOPING OF ASSESSMENT TOOLS FOR PARENTS\***

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### **Abstract**

In the last two decades we have seen the proliferation of assessment tools for socio-emotional competences based on self-report, that only inform us about the beliefs that respondents have about their own competences and not about their real competences. The need to overcome this kind of tools' limitations, and develop assessment options that foster the ecological validity of collected information, encouraged the development of hetero-evaluation tools based, namely, in the opinions that parents have about their children socio-emotional competences. In this work, with a convenience sample of 715 mothers of both sex youngsters, we present the structural validity's study of the Emotional Quotient Inventory (EQ-I; Portuguese version of Bar-On for parents) and the Perceived Social Competence (PSC-Pa: PSC parents' version). EQ-I is a tool related to beliefs that parents have about their children emotional intelligence, with 38 items (4-point scaled) organized around five factors (Intrapersonal, Interpersonal, Stress Management, Adaptability, and Mood). PSC-Pa is a tool that consists of five subscales related to parent's perceived social competence of their children in five hypothetical interpersonal situations, with 10 items (3-point scaled) organized around five factors (Intimate Relationship, Leadership, Support and Communication with Peers, and Support and Communication with Adults). Based on exploratory factorial analyses (varimax rotation of factors extracted by principal axis factoring method), and also on the examination of factors' convergent and discriminant validity and their reliability, we verified that the factorial structure of both tools was jeopardized.

**Keywords:** *Social competences, Emotional competences, Assessment, Parents, Youngsters.*

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### **1. Introduction**

According to Waters and Sroufe (1983) Social Competence (SC) is an ability to manage behavior, cognition and affection in order to achieve their social objectives. More specifically, SC appears to be multifold and involving several individual components: positive relationships with others; social cognition appropriate to age; deprivation of maladaptive behaviors and effective social skills (Candeias, 2001).

Emotional Intelligence (EI) is defined as the way we understand ourselves and others, how we relate with people, how we adapt and cope with the immediate surroundings in order to successfully deal with environmental demands (Bar-On, 1997).

Information about children's social competence and emotional intelligence comes from several sources: self-perceptions, peer report, parent report, teacher report, and observer or interviewer ratings. Here, we focus on mother's reports and we try to figure it out what are their perceptions about children emotional self-regulation, social cognition, positive communication, and prosocial relationships with family members, peers, and teachers (Bornstein, Hahn, & Haynes, 2010).

### **2. Design**

Assessment tools based in self-perception can be biased towards "the here and now" rather than summative judgments covering a period of time. Then, an alternative/

\* Supported by FCT - APD- Academic Performance and Development: a longitudinal study on the effects of school transitions in Portuguese students (PTDC/CPE-CED/104884/2008)

complementary approach is to seek information from the children's parents once they have access to important and detailed information about their child's behavior at several contexts (Wigelsworth, Humphrey, Kalambouka, & Lendrum, 2010).

Self-reported EI of the students only correlate with that of their mothers (Sánchez-Núñez, Fernández-Berrocal, & Latorre, 2013) so our work was developed with a convenience sample of 715 mothers of both gender youngsters (24.4% in the first level,  $Mdn_{(age)} = 9$  years; 37,2% second level,  $Mdn_{(age)} = 11$  years; 38,4% third level,  $Mdn_{(age)} = 14$  years).

We used Emotional Quotient Inventory (EQi-pv: Portuguese version of Bar-On for parents) and the Perceived Social Competence Test (PSC-Pa: PSC parents' version). The EQi-pv assess parents' perception of their children EI in five domains: intrapersonal (IA), interpersonal (IE), adaptability (A), stress management (SM) and general mood (GM) on a 4-points Likert-type scale (1 = "Never" and 4 = "Always"). In PSC-Pa the participants are expected to analyze five interpersonal problem-situations – descriptions of interpersonal situations in a verbal format: (1) intimate relationship (IR), (2) leadership (L), (3) support with peers (SP), and (4) support (SA) and (5) communication with adults (CA); in which the participants are requested to evaluate their performance and facility on a 3-points Likert-type scale (1 = "Poor"/"Hard" 2 = "Suficient"/"Neither easy nor difficult" and 3 = "Excellent"/"Easy", according to the type of the question – performance/facility).

Data collection took place during the school year 2011/2012. Students took home the protocols for mothers respond, and returned to the head of class.

Data analysis was based on exploratory factorial analyses, with varimax rotation of factors extracted by principal axis factoring method for the EQi-pv and by generalized least squares factoring method for PSC-Pa (scale free and asymptotically efficient). Besides the examination of instruments' factor structure, we have examined factors' convergent validity (CV), calculated through average variance extracted (AVE), which should be at least .50, discriminant validity (DV; shared variance, or squared correlations, between factors lower than the AVE of each), and also their composite reliability (CR), which should be at least .70.

### 3. Objective

The aim of this study is to test the applicability of the scales EQi-pv and PSC-Pa in Portuguese mothers, comparing the factor structure of the first one with the instrument original factor structure, and the factor structure of the second one with the factor structure found in previous research with children.

### 4. Results

**EQi-pv.** The original five factor structure was tested and several items were excluded due to small factor loadings ( $< .45$ ): four in GM; two in A; three in SM; one in IA; and, two in IE. The calculation of the factors' AVE revealed severe CV problems in IE (AVE = .29), and slightly CV problems in A (AVE = .45) and IA (AVE = .47). The remaining factors showed AVE values above the desired cutoff level: .53 for both GM and SM. All factors showed reliability values above the desired cutoff level, with the exception of IE (CR = .61). Both AVE and CR results for IE, lead to the exclusion of this factor. Correlations between the four factors were small to moderate (range = -.14. to .39), indicating a good DV. The negative relationships occurred between SM and the other three factors.

**PSC-Pa.** Based on eigenvalues (Kaiser criterion), and on scree plot inspection, we have retained three factors: Interpersonal Negotiation (IN) with four items (AVE = .47; CR = .78), Social Support (SS) with four items (AVE = .41, CR = .73), and Peers Leadership (PL) with only two items (AVE = .49; CR = .84). The correlations between these factors were moderate (range = .26. to .44), denoting a good DV.

## 5. Discussion

Due to psychosocial and cognitive development, relationships with parents and friends are considerably different in adolescence compared to childhood (De Goede, Branje, Delsing, & Meeus, 2009).

We believe that due to these characteristics, during the adolescence, parents don't have a real and accurate perception about their children interpersonal relationships and we can justified the exclusion of the IE factor of EQi-pv based on principles of developmental theories, considering the prevalence of adolescents' mothers in our sample (cf. design).

According to the theory underlying the construction of PSC-Pa five factors would arise representing the five situational contents, since this is a test in which situational knowledge is organized according to the contents. However, our data are organized in three dimensions (social support, interpersonal negotiation and peers leadership) which suggest that PSC-Pa can be organized according to knowledge and content but also according to the general processes associated with those contents. In this study, mothers perceived their children SC in terms of social support, interpersonal negotiation and peers leadership. This means that the objectives that guide interpersonal behavior, as the situations are important to organize SC perception as previous studies suggest (Ford, 1982). The final dimensions of PSC-Pa seems to express the structure based in the aggregation of contents, as if we have a content as a process of perceived social competence. For further studies we should develop a new situation about peers' leadership in order to have two situations and four items and improve the validity of PSC-Pa (Candeias, 2001).

## 6. Conclusions

Our results show that these tools will provide a way to assess mothers' perceptions about their children SC and EI. However we'll keep studying EQi-pv and PSC-Pa with confirmatory factorial analyzes for model invariance across study levels.

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## THE SET GAME® AND ITS COGNITIVE ASPECTS

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### Abstract

Games are considered an interesting tool to observe and promote cognitive development and learning in a problem-solving context. Based on this, the aim of this research work was to analyze the cognitive aspects of the Set Game® from the point of view of Piaget's theory about correspondences. This game is composed by 81 cards each one having a variation of four features: symbol, color, number of figures and shading. The objective of the game is to identify a set of three cards from a group of twelve laid out on a table, whose features are either identical or distinct on each card. Participants were 40 volunteers, being from 14 to 80 years old, coming from a Brazilian government educational program. Fifteen workshops were organized to collect data. Results show that the selected sets' features were grouped predominantly by similarity. Among the possibilities to settle the features' parts, most of sets were grouped by similarity of three features. The conclusion of this study is that, according to the theory, these findings indicate that the subject who observes or coordinates aspects to solve a problem, firstly makes a correspondence effort, secondly elementary functions, and finally reaches the statute of transformation, which is expressed in the use of operative scheme by the subject.

**Keywords:** *Set game, Piaget, Cognition, Correspondences, Transformation.*

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### 1. Introduction

Learning, knowledge and cognitive development are an active work of individual construction by the subject that happens in an interaction subject-object (Macedo, 1997). The valorization of that active work in a game environment enables the subject to realize the real possibility of acquisition of knowledge. In this context, games are considered a suitable tool to practice the well-thinking, i.e., thinking with logic and criterion. It is a necessary condition to play well and to be high-flier at school.

This study was guided by some recent Brazilian researches (Macedo, Carvalho & Petty, 2009; Frias, 2010; Garcia, 2010; Bichal, 2011; Borges, 2011; Queiroga, 2013) which analyze games from the point of view of Piaget's theory focusing on their usage in educational interventions.

### 2. Objectives

The objectives are to identify and analyze the cognitive aspects on play Set Game®.

### 3. Method

#### 3.1 Participants

The participants were 40 volunteers coming from a Brazilian government educational program. Of that total, 18 were teenagers being from 14 to 16 years old; 12 were adults, being from 25 to 54 years old; and 10 elderly people, being from 63 to 80 years old. Among the grades, in the teenagers group 2 were in ninth grade of elementary school and 14 were in first and 2 were in second grades of high-school; in the adults group 1 finished the high-school, 6 were graduated and 4 were master degree.

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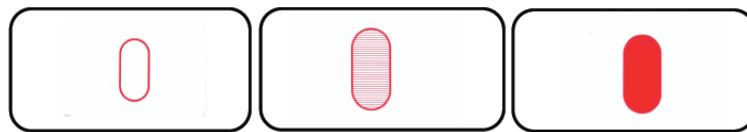
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### 3.2 The Set Game®

This game is composed by 81 cards each one having a variation of four features, which are: symbol (oval, squiggle or diamond), color (red, purple or green), number of figures (one, two or three) and shading (solid, striped or open). The objective of the game is to identify sets of three cards whose features are either identical or distinct on each card, named Set from now on, from a group of twelve laid out on a table. If there is not any Set in the group, three more cards must be laid face up. The players need to pay attention on not grouping 2 features' parts obeying the rule and one not.

**Figure 1:** Set example (the same symbol, color, and number of figures; and different shading)



### 3.3 Procedure

It was organized 15 workshops of 30 minutes each, where the participants, in group, played the game during a single session. The workshops were patterned after the work developed by the Laboratory of Psychopedagogy (LEDA/LaPp) of the Institute of Psychology at the University of São Paulo, Brazil. Macedo, Petty and Passos (1997, 2000) argued that four steps are necessary and indispensable to the knowledge acquisition processes occur.

Firstly, the game was presented to the participants and in the following the rules were explained to them. Then, the players were encouraged to analyze the cast in order to build a strategic plan. After that, it was offered to the players a problem-solving context. Finally, the subjects were stimulated to analyze their game experience. These four steps were used to collect the data.

## 4. Results

The data analysis showed us that in a cast it is possible to select more than one Set. Due to this, it was identified two groups of Sets: Possible Sets and Selected Sets. The first group is composed of all Sets in a cast and the second one, the Sets selected by the players. After 15 workshops, 369 Sets were possible and 131 were selected. From the selected Sets, 102 (78%) were right and 29 (22%) was selected wrongly.

Concerning the predominance of similarity of features, in 136 possible Sets and in 57 selected Sets the symbol feature was dominant. In the first group most of figures was oval (41%). This happened again in the second group (40%). In what concerns the color, in 124 possible Sets and in 44 selected Sets it was similar. The purple color was predominant (53%) in the possible Sets. In contrast there was not predominance of any color in the selected Set group. With respect to the number, in 111 possible Sets and in 55 selected Sets this feature was similar. Three figures were dominant in both groups (47% and 46% respectively). The last feature, the shading, was similar in 172 possible Sets and in 74 selected Sets. The striped figures were dominant in both groups (43% in possible Sets and 37% in selected Sets).

Furthermore, it was analyzed the four possible kinds of features' part combination. In the group of Sets with all different parts, there were 68 (18%) in the possible Sets but it was selected only 6 (7%). In the group of Sets with one similar part and three different ones, there were 141 (37%) in the possible Sets group but it was selected 25 (25%). In the group of two similar and two different parts, there were 114 (30%) possible Sets and it was selected 24 (24%). In the last combination, three similar parts and one different, there were 57 (15%) possible Sets and it was selected 47 (44%). These results show that the Sets with only one similar part are predominant in the possible Sets group. On the other hand, in the selected Sets



group those with three similar parts are the most frequent. We conclude that the number of Sets in each group does not affect how the subject selects the Sets.

## 5. Discussion and Conclusions

Playing the Set Game® is a task of making correspondences as the subject has to compare the figures (object) to select a Set. Action Schemes are used to make correspondences and their base are the nine cognitive coordinators defined by Piaget (1982). The first of these coordinators is Repetition and it is used in every cast. The second one is Identification, which is necessary to recognize the objects. The players have to identify a Set in a group of twelve cards. The third one is Substitution, which is linked to the content and not to the shape in the Set® Game. The player uses this last one to select the Set because the content is substituted at every cast. The fourth coordinator is Similarity/Difference. The player uses this coordinator to identify and compare the features of the cards. The fifth one is Grouping, which is used to select and match the cards. Merely grouping is not sufficient, the order is essential. In this case, the sixth coordinator, Succession, is used as an important factor to resolve the problem. The seventh coordinator is Involvement. The player uses it to relate each features' part to form a group or a Set. The eighth is Direction. The player spots the better direction to achieve an objective. The last one is Position/Dislocation. The player needs to dislocate his look to all directions to search a Set. The conclusion of this study is that, according to the theory, these findings indicate that the subject who observes or coordinates aspects to solve a problem, firstly makes an effort of correspondence, secondly of elementary functions, and finally reaches the statute of transformation, which is expressed in the use of operative scheme by the subject.

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## TEACHERS' NOTIONS ABOUT TYPES OF COMMUNICATIVE BEHAVIOR AND LEVELS OF COMMUNICATIVE CULTURE

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### Abstract

Research objective was to study teachers' implicit notions about types of communicative behavior (destructive, ambivalent, constructive) and levels of communicative culture of the teacher (communicative illiteracy, literacy, competence and creativity). One more research objective was to reveal interrelations between these two groups of teachers' implicit notions. Research was carried out by a method of poll of 40 school teachers. It was offered to them to put 109 ways of the behavior in 10 difficult pedagogical situations in compliance with the types of communicative behavior and with the levels of communicative culture. To the obtained data the correlation analysis was applied. For 55 ways of behavior statistically significant coefficients of correlation between reference of these ways of behavior to types of communicative behavior and to levels of communicative culture of the teacher were found. These ways of behavior (both positive and negative) can be considered as a kernel of teachers' notions about communicative culture.

**Keywords:** *Teachers, Communicative culture, Notions, Behavior.*

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### 1. Introduction

Implicit theories of various objects were studied in many researches (Kelly G., 1970; Leroy N., Bresson P., Sarrazin Ph., Trouilloud D., 2007, etc.). This research is devoted to studying of teachers' implicit notions about communicative culture of the teacher. In our researches (Wilhelm A. M., Glotova G. A., 2012, etc.) it was offered to allocate three types of communicative behavior in difficult pedagogical situations and four levels of communicative culture of the teacher.

The constructive type of behavior of the teacher means that the teacher isn't beyond ethical standards, respect, acceptances of partners in communication that finally leads to realization of strategy of cooperation between the teacher and pupils. The destructive type of behavior of the teacher means that the teacher rigidly insists on the position, ignores interests of the pupil or resorts to condemned methods of fight that finally leads to destruction of the relations between the teacher and pupils. The ambivalent (uncertain) type of behavior of the teacher contains both constructive, and destructive elements therefore it is intermediate.

The lowest level (of communicative illiteracy), means absence or very poor development of communicative culture of the teacher. Communicative literacy assumes existence at the teacher of the qualities allowing it effectively to work in standard, stereotypic situations of professional pedagogical communication. Communicative competence means the existence of qualities which assume rather free interaction in rather difficult, non-standard pedagogical situations, existence of skills of management by communication. Communicative creativity represents a set of the qualities, helping to cope with non-standard, extraordinary professional pedagogical situations. This level means existence at the teacher of the reflexive mechanisms, the developed consciousness and the appeal to valuable semantic aspect of pedagogical activity.

### 2. Design

The empirical research was conducted. To the obtained data the correlation analysis (according to Spearman) was applied.

### 3. Objectives

Research objective was to study teachers' notions about types of communicative behavior and levels of communicative culture of the teacher. One more research objective was to reveal interrelations between these two groups of teachers' notions.

### 4. Methods

Research was carried out by a method of poll of 40 school teachers. It was offered to them to put 109 ways of the behavior in difficult pedagogical situations which were revealed in our earlier research in compliance with a) types of communicative behavior (destructive, ambivalent, constructive) and b) levels of communicative culture (communicative illiteracy, literacy, competence, creativity). The concepts connected with types of communicative behavior and levels of communicative culture, were explained to teachers.

### 5. Results & Discussion

Teachers most well differentiate level of communicative illiteracy, experiencing more difficulties at differentiation of three remained levels, especially, following one after another, and among the last the greatest difficulties presents for teachers differentiation of communicative competence and communicative creativity. Contrary to it teachers is thinner distinguish options of constructive type of behavior, than destructive.

Actions of the "real" teacher in difficult pedagogical situations are estimated as more destructive and illiterate in comparison with actions of the "ideal" teacher. The received significant coefficients of correlation between notions of teachers ( $n=40$ ) about types of communicative behavior and levels of communicative culture for 10 difficult pedagogical situations are given below ( $r_s \text{ crit.} = 0,49$ ,  $p \leq 0,001$ ;  $r_s \text{ crit.} = 0,40$ ,  $p \leq 0,01$ ;  $r_s \text{ crit.} = 0,31$ ,  $p \leq 0,05$ ).

*Situation 1:* At removal of a chemical formula the teacher made a mistake. The pupil pointed to it. The teacher is concerned that pupils will think of him. - Trick (intentionally I made) (0,672); Recognition of a mistake (0,521); Internal revision of a position (right to a mistake) (0,407).

*Situation 2:* During a lesson one of pupils asks to the teacher a difficult question. The answer to it is beyond competence of the teacher. It can't give on it the correct answer. - Internal revision of a position (ignorance recognition, right to ignorance) (0,489); Suggests the pupil to understand independently the matter (sends in library, will prompt where to find) (0,484); Explains it is greatest possible at present (0,325).

*Situation 3:* In the ninth class the campaign in theater is planned. And here the stopper was in the doorway formed. Tired, after the long working day, the class teacher broke on shout: "You became crazy?! Any theaters! Return also diaries on a table!!! ". How to leave this situation? - Joke (0,721); The appeal to culture and maturity of pupils (0,486); Apology for shout (0,372); To Calm pupils (an appeal to an order, to organize) (0,327).

*Situation 4:* The call finished ringing. The corridor became empty. But there is an out of breath pupil. Looked back and slipped in a class. Behind it two more are torn in a class. And so repeats not the first day... - Clarification of the reasons of delay (0,606); Enters sanctions and control for delay (0,564); Won't let on a lesson (0,510); Will send to the director (0,508); Record in the diary (0,473); Stops a lesson, waits for all late (0,473); Will put at an entrance (0,454); Appoints "patronage" over late (0,440); Oral remark (0,402); Call of parents or threat (0,386); Will start talking on an interesting subject (0,376).

*Situation 5:* The teacher calls the pupil to a board. The pupil is at a loss with the answer. At this time his companion tries to prompt to it. As the teacher will react to it? - Joke (the correct answer – 2, wrong - 1) (0,635); Will praise a prompter (0,517); Remark and threat (0,472); Decrease in an assessment answering (0,448); Task to a prompter during the answer of the companion (0,405); Assessment for two (0,387).

*Situation 6:* History lesson in the fifth class. The teacher states a material. One of the pupils, fond of this subject and reading additional literature, asks a question: "I don't agree with

you. In what book you read it?" - Will ask to wait for change (0,381); Praise (0,361); Will give the chance to express to the pupil (0,345).

*Situation 7:* The teacher writes on a board. At this time the silence is broken by noise of the falling book. The teacher speaks to the one who dropped it: "Once again – and you will leave a class". Having estimated a situation, already other pupil specially throws the book. Takes away the book (0,525); Look, oral remark (0,479); Points to mediocrity of actions (0,441); Prevention of situation ("it wasn't necessary to tell these words", not to pay attention from the very beginning) (0,418); Record in the diary (0,372); Emotionally relieves the tension (0,362); Removal from a class (0,320).

*Situation 8:* Mathematics lesson. The teacher tries to write a formula on a board, but chalk doesn't write. He guesses that someone soiled a board wax. - Shout, reading notations (0,562); Persons on duty wipe a board (0,460); "Responsible" prepares a board for the following lesson (0,454); Search "guilty" (0,397); Uses other forms of work (without a board, oral work) (0,375); Independently study a material (0,321).

*Situation 9:* The teacher will read a lesson but as soon as he turns away to a board, in a class there is a noise. Turns and everything is normally. It repeats several times. - Switching on other form of work (facing a class) (0,432); Doesn't pay attention to a situation, continues a lesson (0,423); Remark (0,420); Independent studying of a material (0,403); Shout (0,348).

*Situation 10:* The teacher leads a lesson. To a class one of pupils answers the next question of the teacher once again with a caustic joke. In a class the burst of laughter is distributed. The reputation of "clown" was strongly consolidated to this pupil among teachers. - Look (0,544); Shout and nervousness (0,480); Threat ("there will be an examination") (0,472); Remark to "clown" (0,471); Conversation after a lesson (0,408); Joke in the answer (joke acceptance, from a joke to a topic of the lesson) (0,387); Task which will check after a lesson (0,343).

As it is possible to see, 55 significant correlations between teachers' notions about types of communicative behavior and levels of communicative culture concerning an assessment of the same ways of behavior in 10 concrete pedagogical situations were received (12 – were received at  $p \leq 0,001$ ; 25 – at  $p \leq 0,01$ ; 18 – at  $p \leq 0,05$ ). Let's note that 75 significant correlations (positive and negative) were received also between different ways of behavior (2 – at  $p \leq 0,001$ ; 22 – at  $p \leq 0,01$ ; 51 – at  $p \leq 0,05$ ).

## 6. Conclusions

1. Teachers' notions of types of communicative behavior and levels of communicative culture were characterized considerable individual variability.

2. Teachers' notions of constructive type of behavior and of level of communicative illiteracy were the most certain and conscious.

3. Behavior of the "real" teacher in difficult pedagogical situations were estimated as more destructive and illiterate in comparison with behavior of the "ideal" teacher.

4. For 55 ways of behavior (from 109) significant correlations between types of communicative behavior and levels of communicative culture were received.

Applied value of results of research is connected with influence of teachers' notions about types of communicative behavior and levels of communicative culture on their relationship with pupils, on their behavior in conflict pedagogical situations.

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## READING COMPREHENSION DIFFICULTIES – COMPARISON OF POOR AND GOOD COMPREHENDERS USING NEUROPSYCHOLOGICAL TASKS

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### Abstract

**Objective:** To compare poor comprehenders and good readers using eight neuropsychological measures to find out which are related to performance in reading comprehension. **Design:** Quasi-experimental design. **Methods:** Participants: seventy-seven Brazilian children in 4th to 6th grade, 19 poor comprehenders (high performance in word reading, but low performance in reading comprehension) and 58 good readers (high performance in word reading and reading comprehension). **Materials and measures:** Questionnaire about socioeconomic data, health and educational history, Conners Abbreviated Teacher Rating Scale, Raven matrices, word reading measures, reading comprehension measures (retelling and comprehension questions), Child Brief Neuropsychological Assessment Battery tapping eight neuropsychological functions in 26 tasks. **Analysis:** Linear regression. **Findings:** After adjusting values for grade and type of school, the tasks that showed a significant association with the variable group (poor comprehenders or good readers) were visuospatial working memory and verbal fluency.

**Keywords:** *Reading comprehension difficulties, Neuropsychological assessment, Working memory, Executive functions.*

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### 1. Introduction

In specific difficulty in reading comprehension, the ability to recognize words is preserved but, despite that, the reader cannot get the meaning of the text read (Fletcher, 2009). The complexity of the comprehension process suggests that the causes of poor text comprehension may be various and diverse (Perfetti, 1994). Psychometric approaches to the diagnosis of learning disabilities should be complemented by the evaluation of cognitive functions, which may be more informative and provide actual contributions to planning clinical or school interventions (Fiorello et al., 2007). Evidence shows that the neuropsychological aspects of comprehension difficulties are associated with working memory (Nation, 2005), especially when tasks involve verbal information and executive control (Carreti, Borella, Cornoldi, & De Beni, 2009). Deficits in different language areas, such as vocabulary (Catts, Adlof, & Weismer, 2006) and morphological awareness (Kirby et al., 2012), have already been found in poor comprehenders. Executive functions are also compromised in poor comprehenders (Cutting et al., 2009). However, most studies approach the association of comprehension with neuropsychological functions in isolation. Neuropsychological batteries may provide a broader evaluation, as they investigate several functions together, which is especially important in children, because of the overlapping of dysfunctions often found in childhood (Argollo et al., 2009).

### 2. Objectives

This study compared a group of students with reading comprehension difficulties (poor comprehenders) and a group of competent readers (good comprehenders) in terms of performance in a brief instrument of neuropsychological evaluation that assesses eight functions in children: orientation, attention, perception, memory, language, visual constructive ability, arithmetic abilities and executive functions.

### 3. Methods

#### 3.1. Participants

Seventy-seven children aged 9 to 12 years and studying in the 4<sup>th</sup> or 6<sup>th</sup> grade in public (PuS) and private (PrS) schools underwent tests to evaluate word reading and text

comprehension. The group of poor comprehenders ( $n=19$ ) had an average or above average performance in word recognition, but a poor performance in reading comprehension simultaneously. The group of good readers ( $n=58$ ) had an average or above average performance in reading isolated words along with a very good performance in reading comprehension tasks. Inclusion criteria were absence of neurological or psychiatric disorders, absence of uncorrected auditory or visual disabilities and performance equal to or higher than the 25<sup>th</sup> percentile in the Raven colored progressive matrices test (Angelini, Alves, Custódio, Duarte & Duarte, 1999). According to the Fisher exact test, there were no significant differences in grade or type of school, nor among good readers, nor among poor comprehenders.

### 3.2. Instruments

A questionnaire about socioeconomic, health and education-al data was applied to parents. The Conners abbreviated teacher rating scale - CATRS-10 (Brito, 1987) was applied to teachers. The participants underwent the following tests: The Raven colored progressive matrices test (Angelini et al., 1999); evaluation of oral reading of isolated words and pseudowords (Salles & Parente, 2007); reading comprehension measures based on retelling and questionnaire (Corso, Sperb, & Salles, 2012); Brief Neuropsychological battery for children (Salles et al., 2011) to assess the eight mentioned functions through 25 subtests.

### 3.3. Data analysis

Regression analysis was used to check which neuropsychological functions were associated with the variable group (poor comprehenders versus good readers), controlling, at the same time, for grade and type of school.

## 4. Results

Group homogeneity was confirmed for behavior, intelligence (Raven;  $p=0.122$ ) and isolated word reading ( $p=0.062$ ). Group (poor comprehenders versus good readers) was significantly associated with working memory, executive functions and written language. The specific tasks that had a significant beta coefficient were visuospatial working memory ( $\beta = 0.311$ ;  $p < 0.01$ ), verbal ( $\beta= 0.270$ ;  $p= 0.01$ ) and semantic ( $\beta= 0.279$ ;  $p= 0.01$ ) fluency, and written language – writing words and pseudo words ( $\beta = 0.246$ ;  $p < 0.05$ ).

## 5. Discussion and Conclusions

The visuospatial working memory task, of all the working memory tasks evaluated in this study, is the one that most intensely demands the activation of the executive component of the working memory: the participant should reproduce the sequence of cubes indicated by the examiner and invert the series at the same time. Our results confirm those that emphasized the presence of executive control in the tasks that differentiate poor and good comprehenders (Carreti et al., 2009). In contrast with other studies (Oakhill, Yuill, & Garnham, 2011), however, the verbal domain did not prevail, maybe because the executive component was demanded more intensively in the visuospatial task than in the verbal task used in the study (digit span backward). The orthographic and semantic verbal fluency tasks involve the executive ability to coordinate attention, working memory, use of strategies and monitoring (McNamara & Scott, 2001), which may explain lower performances among poor comprehenders. As to the writing words/pseudowords task, it is known that impairments in similar cognitive functions may explain the simultaneous presence of problems in reading and writing domains. Berninger, Nielsen, Abbott, Wijsman and Raskind (2008) found an association between inhibition and verbal fluency failures and spelling problems. Specific difficulties in reading comprehension are also associated with failures in inhibition (Palladino, Cornoldi, De Beni, & Pazzaglia, 2001) and in verbal fluency (Miranda-Casas, Fernández, Robledo, & García-Castellar, 2010). The impact of working memory and executive functions on reading comprehension suggests the importance of introducing these neuropsychological measures both in assessment and interventions with students who struggle with reading comprehension in the initial years of elementary education.

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## RECEIVING ADEQUATE SUPPORT AFTER REEMPLOYMENT. DOES IT ALWAYS HELP?\*

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### Abstract

The evidence of unemployment shows its negative effect on a person, and his/her job search process. Individual can suffer from decreased qualifications and competence or lower self-efficacy not only during searching for employment but also after being reemployed. This study analyzes the social support received by reemployed within first three months in the new workplace. We assumed social support as an important environmental factor during reemployment. The main goal of this work was to investigate the relation between social support received by reemployed individuals (n=88) and its influence on their well-being at work. The results indicate direct and moderation effect of received social support and its adequacy on emotional costs and job satisfaction. Regression analysis showed positive results of emotional support, whereas tangible support has negative effect on the reemployed well-being.

**Keywords:** *Social support, Support adequacy, Emotional costs, Reemployment.*

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### 1. Introduction

Entering a new organization is often accompanied by some degree of disorientation, reality shock, and a need to make sense of the new environment. The newcomers who enter the organization attempt to clarify the new environment and his or her place in it (Bauer & Erdogan, 2011). This study has been focused on organizational newcomers previously unemployed. Reemployment success does not only imply finding a job, but foster long-term reemployment. Hiring just starts the complete employment process. Klehe and colleagues (2012) reviewed past research that underlines importance of employee involvement, communication, and fair organizational procedures in dealing with employee's insecurity and well-being.

Since unemployment influence a person in a specific manner organizational reintegration could be particularly difficult for newcomers previously unemployed. Different studies (Feather & O'Brien, 1986; Paul & Moser, 2005) have shown that from the individuals perspective unemployment causes undesirable psychological consequences; correlates with negative psychological effects, provides to worsening of mental health, self-esteem and shifts toward more external locus of control. Unemployment leads often to decreases in perceived competence, as well as real lack of qualification, decreases in activity, and life satisfaction and increases in depressive affect. There are also tendency to blame the unemployed for their worklessness what causes in poorer available support (Feather & O'Brien, 1986; Sarason et al. 1990). For the economic reasons, unemployed individuals have limited social contacts that lead to narrow social network. In addition, the longer individuals have been without a job, the more likely they are to declare the lack of time structure and purpose (Rowley & Feather, 1987) that can be one of the obstacles in the workplace after reemployment.

From this perspective, social support received by the reemployed in the first period of employment becomes an important issue.

### 2. Objectives

The study analyzes the social support received by reemployed in their new workplace as an important environmental factor during the first period of employment. The main goal of this work was to investigate the relation between social support received by reemployed individuals

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and its influence on their well-being at work. In follow, the relationships between received social support and experienced emotional costs at work, job satisfaction were examined here in relation to coping with difficulties after reemployment. The kinds of support (emotional, valuable, information and tangible), its amount and adequacy have been analyzed.

### 3. Study design

#### 3.1. Participants and Procedure

The sample comprised the 88 reemployed who have voluntarily agreed to participate in the project. The study was designed as longitudinal. Questionnaires battery was administered in two waves (Time1 and Time2). Respondents were asked to fill out the questionnaires at the first measures point (T1). Three months after T1, all participants completed the questionnaires for the second measures point (T2). The 3-month follow-up was chosen for reasons that were both, theoretical (e.g., this time frame allowed for the longer term consequences of the coping behaviors reported at T1 to be observed) and practical (e.g., to maintain the engagement of respondents). The differences in level of unethical behaviors, emotional costs experienced by newcomers, coping and received social support in both groups have been examined.

The sample consisted 50% male subjects, aged from 21 to 57 ( $M=34.5$   $SD=10.5$ ), classified as reemployed. The average length of unemployment before getting the job was 16 months ( $SD=9.03$ ), what classified the participants as long-term unemployed.

#### 3.2. Measures

*Emotional Costs Questionnaire* (Chudzicka-Czupala, A., 2010) includes 18 items corresponding to feelings appearing in the workplace, such as depression, apathy, frustration etc., rated on a 5-point scale ranging from 1 (not at all) to 5 (very often).

*Unethical Behaviors Scale* (Chudzicka-Czupala, 2010) to recognize the unethical behaviors in the workplace from the victim perspectives. Consists of 20 items corresponding to different forms of violence at work, (such as ignoring, belittling, isolation) rated on 3-point scale (never-often).

*Social Support* (Ślebarska, 2010). The scale developed for the current study contains questions on four kinds of support (emotional, valuable, informational, and tangible) available from different sources (formal and informal). Participants were asked to report the amount of support they receive from others in respect to their needs (adequacy), using a 5-point rating scales from *not at all* to *a great extent*.

*The Coping Strategy Indicator (CSI)*, (Amirkhan; polish version, Chudzicka-Czupala, 2004) examines coping strategies (problem solving, seeking support, avoidance). Respondents determine the extent of certain coping strategies responding to 33 items; 11 for each subscale. Problem solving is denoted by items such as "tried to solve the problem"; seeking support: "confided your fears and worries to a friend or relative"; and avoidance: "daydreamed about better times".

*Job satisfaction*. 1 item was used to assess the job satisfaction. Respondents were answering the question: *How much are you satisfied with your current job?* on a 5-point scale (not at all satisfied - very satisfied)

### 4. Results

The data shows social support received by the reemployed as positive related to unethical behaviors ( $r=.25$ ;  $p < .05$ ) experienced in the workplace. Concerning the specific kinds of support, the relationship between both, information support ( $r=.33$ ;  $p < .01$ ) and tangible support ( $r=.42$ ;  $p < .01$ ) and unethical behaviors provided by co-workers has been found. The adequacy of support in general ( $r=-.24$ ;  $p < .05$ ), and adequacy of valuable support ( $r=-.28$ ;  $p < .01$ ) were however connected with decrease of unethical behaviors at work. The correlation analysis (T2) also showed emotional costs experienced by the reemployed as positive correlated with tangible support ( $r=.26$   $p < .05$ ) and negative correlated with support adequacy ( $r=-.22$ ;  $p < .05$ ). The tangible support was also related to lower job satisfaction ( $r=-.22$ ;  $p < .05$ ) and higher

distress ( $r=.27$ ;  $p < .05$ ). The distress is lower however in the situation of higher general support adequacy ( $r=-.24$ ;  $p < .05$ ) and emotional support adequacy ( $r=-.27$ ;  $p < .05$ ). Also Job satisfaction is better in accordance to valuable support adequacy ( $r=.22$ ;  $p < .05$ ). The relationship between adequacy of general support ( $r=-.22$ ;  $p < .05$ ) and emotional support ( $r=-.22$ ;  $p < .05$ ) and coping has been found as negative correlated with avoidance.

The regression analysis depicted moderating effect of emotional support adequacy on relation between emotional costs and avoidance. Although emotional costs experienced at T2 was not significantly correlated with this kind of coping, the inclusion of the interaction terms did significantly add to the prediction of avoidance ( $\beta=-1.36$ ,  $p < .01$ ), indicating the presence of a moderation effect, that is, that the influence of emotional costs on coping (avoidance) varied significantly according to the adequacy of emotional support received by the respondents. The moderating effect of emotional support adequacy has been found in the relation between emotional cost and distress ( $\beta=-1.03$ ,  $p < .01$ )

## 5. Conclusions

In sum, more may not always be better. High intensity of social support received by the reemployed may not only lead to feeling helped (emotional and valuable support) but also to feelings of being controlled (information and tangible support); this could result in an increase in one's emotional costs and decrease in an individual's coping abilities. The results indicate that adequate social support should be helpful during first period of reemployment. The adequacy of emotional support exerted a moderating effect on the relationship between emotional costs experienced by the reemployed and their tendency to avoidance.

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## **TRUST AND INTERMEDIARY: A COMPARISON BETWEEN CHINESE AND WESTERNERS**

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### **Abstract**

Trust has long been regarded by psychologists and other social scientists as a fundamental component of social competence and social functioning. It has attracted even stronger attention in recent years as globalization spreads and calls for greater understanding of trust across cultures. However, the role of intermediary in trust, which is important for Chinese because of their preference in indirect communication, is overlooked by Western psychology due to their direct communication style. The present research tested the main hypothesis that the intermediary would have effect on Chinese but not Westerners' trust. In Study 1, to investigate the different impact of an intermediary on the trust decisions and expected reciprocity of Chinese and Westerners, 80 Chinese and 77 Australian university students took part in a trust game on computers in the minimal group setting. The results showed that the intermediary helped break the Chinese outgroup distrust and increase their outgroup expected reciprocity, but the effect was not found in the Australians. In Study 2, to explore the differences between Chinese and Westerners in their preference of various types of intermediary in daily circumstances of different level of importance, 207 Americans and 206 Chinese responded to an online scenarios questionnaire. The findings demonstrated that the different preference of interactive modes for the Chinese and the Westerners with daily scenarios of different importance. The resulting theoretical knowledge illuminated trust/distrust with an intermediary in other situations such as online merchants in the e-marketplace and facilitate Westerners and Chinese doing business with each other.

**Keywords:** *Trust, Intermediary, Expected reciprocity, Cross-cultural difference.*

## QUALITY OF WORK LIFE AND HUMAN RESOURCES MANAGEMENT PRACTICES: RELATIONSHIPS WITH JOB SATISFACTION

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### **Abstract**

The Quality of Work Life (QWL) is extremely important, especially at a time when the organizations focus primarily on economic aspects for financial reasons. Meanwhile, Practice of Human Resources Management (PHRM) have had an impact on the workers' behaviors, particularly in job satisfaction, and on the organizational results. However, the relationship between QWL and PHRM, and its relationship with organizational behaviors have been poorly studied in our country. In this study, are presented data obtained in a research which goal was to analyze the relationship between QWL, PHRM and Job Satisfaction. For this purpose were used the Inventory of Quality of Work Life (Rafael & Lima, 2008) and the Questionnaire of Practice of Human Resources Management (Esteves, 2008), as well items of Work Satisfaction indicators (Rafael & Lima, 2008). The sample consisted of 259 working adults who belong to several organizations and occupational activities. The results indicate significant correlations between the frequency of QWL and PHRM and between these variables and Job Satisfaction. Also specific relationships between QWL and PGRH dimensions are analyzed. Finally, the implications of the study regarding the intervention into an organizational context are discussed, particularly the development of intervention strategies and practice in human resources to promote QWL.

**Keywords:** *Practices of human resource management, Quality of work life, Job satisfaction.*

# INTRA/INTERPERSONAL FACTORS OF PROBLEMATIC INTERNET USE AND BINGE DRINKING AMONG SLOVAK UNIVERSITY STUDENTS

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## Abstract

**Objective:** Problematic Internet use and specific patterns of alcohol consumption are relevant risk behaviors (RBs) among university students. This study aimed to explore the associations of gender, academic performance, personality factors, having a romantic relationship and personality factors with RBs among university students. **Design:** Cross-sectional design was applied. **Methods:** 817 first year university students from Slovakia (74.5% females, 19.6 mean age) completed single-item indicators of academic performance at high school prior to their university study (Overall performance, Amount of schoolwork, Quality of schoolwork), provided information whether they were in romantic relationships or not and for how long as well as filling in the Ten Item Personality Inventory and RBs questionnaires (GPIU2, AUDIT-3/AUDIT binge frequency). Respondents were dichotomized according to the level of RBs for the purposes of binary logistic regression. **Findings:** The complete model containing all predictors (gender, academic performance, having a romantic relationship and personality factors) was statistically significant ( $\chi^2 = 41.79$ ,  $p < 0.001$ ) and distinguished between students who reported and did not report RBs explaining between 12% and 20% of the total variance. Gender, having a romantic relationship and academic performance made a statistically significant contribution to the model. **Conclusions:** Gender and previous academic performance at high school may be important to acknowledge when targeting prevention programs for first year students. The sample was based from a single region which implies certain limitations for the generalizability of the results.

**Keywords:** Intra/Interpersonality factors, Problematic Internet use, Binge drinking.

## 1. Introduction

Problematic Internet use and specific patterns of alcohol consumption constitute relevant risk behaviors (RBs) among university students, especially for the first years. It is highly relevant to focus closely on the role of the intra/interpersonal risk and protective factors of these specific risk behaviours in order to improve the effectivity and efficiency of prevention programs.

## 2. Design

A cross-sectional design was used.

## 3. Objectives

This study aimed to explore the associations of gender, academic performance, romantic relationships and personality factors with the risk behaviour of first year university students.

## 4. Methods

### 4.1. Sample

817 first year university students from Slovakia (74.5% females, 19.6 mean age) participated in the SLiCE study (Student life cohort in Europe). SLiCE is a 5 year follow-up up cohort study conducted among first year university students (<http://www.slice-study.eu/>). All first year university students from four universities in the Eastern part of Slovakia were contacted via their university e-mail, as well as personally during their courses with the offer to participate in the study. Those first year university students, who signed the consent form, were asked to fill in on-line questionnaires concerning academic performance, relationship status, personality factors and risk behaviors.

## 4.2. Measures

Academic performance (Markel & Frone, 1998) was assessed by three single-item indicators of school performance which were represented by students' ratings of their overall performance, the amount of schoolwork completed, and the quality of their schoolwork during the past school year. Each item was evaluated on a 5-point Likert type scale and ranged from 1 (poor) to 5 (excellent). *Chronbach's alpha* coefficient for the overall school performance was 0.61. Relationship status was assessed by the question: "Do you have a romantic/steady relationship? If yes, how long ago did it start?" With possible answers: No romantic/steady relationship at present, 1-2 months, 6 months, 12 months, more than 12 months.

TUPI - Ten Item Personality Inventory (Gosling, Rentfrow & Swann, 2003) was used to measure five personality factors: Extraversion, Agreeableness, Emotional stability, Conscientiousness, Openness to experience all on a 7-point scale. A higher score indicated a higher level in each factor.

### *Risk behaviour*

The Generalized Problematic Internet Use Scale 2 (Caplan, 2010) GPIUS2 consists of five subscales (preference for online social interaction, mood regulation, cognitive preoccupation, compulsive internet use, negative outcomes). GPIUS2 has 15 items in total and all items are evaluated on a scale ranging from 1 (definitely disagree) to 8 (definitely agree). A higher score indicates more problematic Internet use. Cronbach's alpha in this study reached 0.91. AUDIT-3/Heavy episodic (binge) drinking was assessed by the third item of the AUDIT-C: "How often did you drink 6 or more standard drinks on one occasion in the past 30 days?"

## 4.3. Statistical analyses

Binary logistic regression models were conducted in order to explore the simultaneous contribution of measured variables. Visual Binning was used to identify suitable cut-off points to break the continuous variables problematic Internet use (PIU) into two approximately equal groups ( $0^{(PIU/0)} = \leq 36,00$ ,  $1^{(PIU/1)} = 37,00+$ ). Participants with AUDIT-3 scores of zero (i.e., the "never" response) were categorized "AUDIT- 3 negative ( $0^{audit3/0}$ )," while participants with AUDIT-3 scores from 1 (less than monthly) to 4 (daily or almost daily) were considered "AUDIT-3 positive" ( $1^{audit3/1}$ ). Risk behaviours as dependent variables of logistic regression was dichotomised into categories 0 ( $^{PIU/0+audit3/0, n=126}$ ) and 1 ( $^{PIU/1+audit3/1, n=520}$ ). All data were analyzed using SPSS 21.0.

## 5. Findings

The complete model containing all predictors (gender, academic performance, having a romantic relationship and personality factors) was statistically significant ( $\chi^2 = 41.79$ ,  $p < 0.001$ ) and distinguished between students who reported and did not report RBs explaining from 12% to 20% of the total variance. Gender, having a romantic relationship (1 2 months, more than 12 months) and academic performance (total benefit while studying at college) made a statistically significant contribution to the model (Table 1).

**Table 1:** *The associations between gender, duration of romantic relationship, academic performance, personality factors and risk behaviors among slovak university students*

	OR (95%CI)
Gender	<b>0.22* (0.06-0.78)</b>
Romantic relationship1-2months	<b>0.19* (0.04-0.85)</b>
Romantic relationship3-6 months	0.39 (0.08-1.88)
Romantic relationship 7-12 months	0.33 (0.08-1.39)
Romantic relationship more than 12 months	<b>0.16*** (0.06-0.44)</b>
Overall performance	<b>0.63* (0.39-0.99)</b>
Amount of schoolwork	0.93(0.60-1.44)
Quality of schoolwork	1.07 (0.69-1.66)
Extraversion	0.93(0.81-1.06)
Agreeableness	0.95 (0.81-1.11)
Conscientiousness	1.00 (0.89-1.14)
Emotional stability	0.95 (0.84-1.07)

Openness to experience	1.03 (0.86-1.25)
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\* p<0,05 \*\*\*p<0,001

## 6. Discussion

Binge drinking constitutes a specific pattern of risk behaviours among university students (De Leo, Wulfert, 2012, Shields, Kane, 2011, Howland, 2010). Many studies have reported that problematic internet use is associated with impairment in academic performance and disruptions of daily routines (De Leo & Wulfert, 2012; Anderson, 2001). Furthermore, it has been shown to be associated with social support and loneliness (Ang, Chong, Chye et al., 2012; Hetzel-Riggin, Pritchard, 2011; Tokunaga & Rains, 2010; Davis, 2001) and specifically with the actual students' binge drinking on campus (Anderson, 2001). The results of this study generally supported these findings and confirmed a simultaneous contribution of gender and school performance with a cumulative indicator of risk behaviour (problematic internet use and binge drinking). The role of a romantic relationship is difficult to interpret and requires further research. On-line data collection, as well as self-report based research could be identified as the limitations of this study.

## 7. Conclusions

The findings of this study contributed to the research-based prevention of risk behavior of first year university students.

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## RELATIONSHIP BETWEEN ONLINE AND OFFLINE CIVIC PARTICIPATION

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### Abstract

The study investigated psychological predictors of traditional and online civic activism, as well as factors moderating the relationship between the two on a representative sample of Serbian citizens (N=2014). Hierarchical regression demonstrated that only extraversion was a significant predictor of both forms of activism: extraverts were more likely to take both virtual and real-life civic actions, whilst self-esteem and political involvement remained insignificant predictors. Additionally, the relationship between online and offline participation was moderated by self-efficacy: the online to offline activism relationship was strongest in the case of high self-efficacy and weakest in the case of low self-efficacy. Extraversion seems to dispose people to engage in real-life, but in virtual actions as well. Higher self-efficacy is needed for activism "overflow", i.e. to translate virtual into real civic actions.

**Keywords:** *Civic activism, Traditional, Online, Psychological Predictors.*

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### 1. Objectives

As a tool for mass communication, Internet enables its users to relatively effortlessly take part in a wide range of social actions, from petitioning and letter writing to actively creating support groups or fund raising. Real-life activism, on the other hand, tends to be more time and energy consuming and less anonymous.

However, the relationship between traditional forms of activism and online activism is not as straightforward as one may assume (Wojcieszak, 2009) – the factors influencing transition from online to offline activism and vice versa are still to be determined. This is especially true for countries in political and economic transition with recent history of large civic movements, such as Serbia.

Furthermore, as the two forms of activism are similar, but not completely overlapping sets of behaviors, the psychological predictors of the two may not be the same (Brunsting, & Postmes, 2002). Relatively little is known about the difference in motives of participants in two forms of activism.

### 2. Design

The aim of this study was to examine if extraversion, self-esteem and political involvement serve as predictors for online and offline social actions.

Furthermore, we wanted to explore if self-efficacy serves as a moderator between online and offline activism. We did not focus on perceived effectiveness of a group or an action per se (as in Hornsey, et al., 2006), instead we focused on the individual's efficacy in everyday and life performance, hypothesizing that those high in self-efficacy will be the ones able to translate virtual into real action.

### 3. Methods

Self-esteem was measured by Rosenberg (1965) 10 item scale, extraversion by subscale from BFI (John, Donahue & Kentle, 1991), self efficacy by a mini scale proposed by Bandura



(2006) in which respondent estimates percentage of daily plans and life plans successfully realized. Political involvement was a single item measure, whilst online and offline civic participation were assessed by parallel versions of scales modified for the purpose of this research. We included actions that can be labelled as "soft" (expressing openly one's point of view or persuading others), as well as "hard" (joining virtual or real groups, volunteering or administering a website). We calculated two separate measures for two types of participation.

The data was collected in 2012 on a nationally representative sample (N=2014) of Serbian population older than 12 (Table 1).

**Table 1:** *Demographic profile of the respondents in the sample*

		Percentage %
Gender	Male	48.3
	Female	51.7
Settlement type	Urban	58.2
	Rural	41.8
Age	12-29	25.6
	30-44	23.0
	45-65	35.7
	65+	15.7
Educational level	Elementary school and less	20.0
	Secondary school	63.9
	Colleague and Faculty	16.2
Internet use	Every day	47
	4-6 times a week	4.3
	2-3 times a week	5.6
	Once a week	2.9
	Once in two weeks	1.0
	Once a month	1.7
	Less than once a month	0.9
	Never	36.6
Total respondents		2014

#### 4. Findings

Hierarchical regression demonstrated that only extraversion was a significant predictor of both forms of activism: extraverts were more likely to take both virtual ( $b=.123$ ;  $R^2=.015$ ,  $p=.00$ ) and real-life civic actions ( $b=.149$ ;  $R^2=.022$ ,  $p=.00$ ), whilst self-esteem and political involvement remained insignificant predictors (yielded no change in percentage of explained variance). Additionally, the relationship between online and offline participation was moderated by self-efficacy: the online to offline activism relationship was strongest in the case of high self-efficacy and weakest in the case of low self-efficacy ( $b=.0029$ ,  $R^2$  increase due to interaction=.0024,  $p=.05$ ).

#### 5. Conclusions

The results indicate that the same psychological trait underlies both forms of activism: there is evidence that extraversion disposes people to engage in real life, but in virtual actions as well. Somewhat unexpectedly, political involvement was not important predictor of neither virtual nor real-life activism. Finally, higher self-efficacy is needed for activism "overflow", i.e. to translate virtual into real civic actions.

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## I PERFORMED WELL? I MUST BE THE CAUSE! THE EFFECT OF FEEDBACK QUALITY ON SELF-SERVING BIASES

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### Abstract

Self-serving bias represents one of the mechanisms for achieving and maintaining a positive self-image. This study was aimed to assess the effect of feedback positivity on self-serving attributions. A total of 120 participants, randomly assigned to four groups, took a spatial orientation test presented as an important indicator of intellectual ability. After each task, participants were given feedback on whether the answer was correct, so there were four experimental conditions: successful, neutral and unsuccessful group, whilst the control group received no feedback. Upon completing the test, respondents assessed: the importance of the measured ability, the validity of the test and the extent to which their performance was affected by internal and external factors. The groups differed in expected manner on all indicators and that participants exhibited both self-affirming tendencies (in successful and neutral group) and self-protective tendencies (in unsuccessful and no feedback group). Additionally, the results demonstrated the importance of the employed experimental procedure: a. the task difficulty moderated in interpreting the outcome (50% correct answers on a difficult test is viewed as a success), and b. partialized feedback (given after each task) enhanced self-serving bias.

**Keywords:** *Self-serving bias, Feedback, Test difficulty.*

### 1. Objectives

Several decades of research document a consistent asymmetry in the attributions people make for their personal outcomes. In general, people tend to make internal attributions for success and external for failure, they describe the tested ability as central and the test as valid if they performed well, but as peripheral and invalid if they performed poorly (Campbell & Sedikides, 1999). Miller and Ross (1975) labelled this phenomenon self serving bias. Depending on outcome positivity, this bias can be viewed as a result of self protective motives (in case of failure) or self affirming motives (in case of success). It occurs for a variety of events and in a variety of settings. For example, it is evident in workers who attribute receiving promotions to hard work and exceptional skill, yet attribute denial of promotions to unfair bosses (Shepperd, Malone, & Sweeny); it is evident among athletes who are more likely to assume personal responsibility when they perform well in the sports arena than when they perform poorly (De Michele, Gansneder, & Solomon, 1998).

In order to control for skill level, prior experience and other individual differences, self serving bias is usually assessed in experimental tasks in which individuals' outcomes are determined randomly by the experimenter and thus have no relation to actual performance. In the typical procedure, participants are asked to perform a task that is ostensibly a measure of an important trait or a skill. After completing the task they are given success or failure feedback; subsequently, participants make attributions of the task outcome.

In the current study, we have introduced two changes to the classical paradigm:

- a) instead of a summary feedback, given after finishing the whole test, we introduced partialized feedback given after each individual task;
- b) besides the standard success and failure feedback conditions, we introduced a neutral feedback condition, in which participants are informed that they performed correctly on half of the tasks.

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Partialized feedback was introduced under the assumption that it leaves more space for outcome reconstruction, as it is not a single, but a series of events. It is documented that vagueness of the situation enhances self-serving bias (Kunda, 1990). Neutral feedback was introduced in order to have a "reference point" which would make it easier to interpret different attribution patterns in successful and unsuccessful group.

## 2. Design and methods

A total of 120 participants, randomly assigned to four groups, took a spatial orientation test (consisting of 20 tasks), presented as an important indicator of intellectual ability.

Their task was to estimate number of building blocks that formed a complex architectural shape. Exposure time was set to be 2500 msec. After each task, participants were given feedback on whether the answer was correct according to the following ratio: "successful" implied they were correct in 15 of the 20 tasks, "neutral" in 10 of 20, "unsuccessful" 5 of 20, whilst the control group received no feedback.

After the test, subjects evaluated on 10 point Likert type scales: (a) the importance of the measured ability (anchored with 1 = not very important, 10 = very important), (b) the validity of the test (1 = invalid measure of tested ability, 10 = valid measure of tested ability), and (c) the extent to which their performance was affected by internal (ability and concentration) and external factors (testing environment and its difficulty) (1 = entirely caused by external factors, 10 = entirely caused by external factors).

## 3. Findings

The participants in all groups rated the test as difficult ( $M=7.06$ ;  $SD=2.17$ ), and their real score was below theoretical midpoint of 10 correct answers ( $M=8.31$ ,  $SD=2.97$ ). There was no significant difference between the experimental groups on their actual test performance.

Groups differed in expected manner on all indicators: more positive feedback lead to evaluating the tested trait as more important ( $F(3, 119); = 4.86, p < .01$ ), the test as more valid ( $F(3, 119); = 6.23, p < .01$ ) and attributing the performance to internal factors more than external ( $F(3, 119); = 4.63, p < .01$ ) (Table 1).

**Table 1:** Mean (SD) of trait importance, test validity and externality of attributions by feedback positivity

Experimental group	Trait importance	Test validity	External vs. internal factors
Positive feedback	8,07 (1,7)	7,13 (1,83)	7,43 (2,36)
Neutral feedback	8,3 (1,18)	6,53 (2,11)	7,3 (1,86)
Negative feedback	6,67 (2,48)	4,7 (2,71)	5,67 (2,12)
No feedback	7,00 (2,29)	5,43 (2,77)	7,13 (1,98)

Post hoc comparisons revealed significant differences between groups with positive and negative feedback in all three indicators ( $d_1 = 1.40, p < .05$ ;  $d_2 = 2.43, p < .05$ ;  $d_3 = 2.0, p < .05$ ); between positive and control group on test validity ( $d = 1.7, p < .05$ ); neutral group evaluated the trait as more important, and the test as more valid ( $d_1 = 1.63, p < .05$ ;  $d_2 = 1.83, p < .05$ ) compared to negative group.

## 4. Conclusion

Type of feedback given after each task has been shown to have a significant impact on the way participants attributed the outcomes of their performance. Positive feedback lead

participants to evaluate the measured ability as more important, test as more valid and attribute their performance to internal factors.

Participants exhibited both self-affirming tendencies and self-protective tendencies. In fact, two distinct attribution patterns were observed: successful and neutral group interpreted their score as a success (for neutral group this was a result of test difficulty, so that half correct answers seem to be satisfactory result) and thus were more prone to self - affirming tendencies, like ascribing greater value to the test and the trait. On the other hand, negative and control group interpreted their score as failure (in absence of any feedback, control respondents based their judgments on their perception of the test difficulty and presumably predicted a negative outcome), so they deemed the test as less valid.

In future research, groups with summary feedback could be directly compared to groups with partialized feedback in order to test if the latter significantly enhances self serving biases. Additionally, as our results demonstrated the importance of test difficulty in interpreting the outcome, this factor can also be further explored by introducing an easier version of the test.

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## LIFE ORIENTATION, PERCEIVED STRESS AND PROBLEMATIC INTERNET USE AMONG UNIVERSITY STUDENTS

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### Abstract

*Objectives:* Based on the published research studies registered in the Electronic databases PsychINFO and PsychARTICLES, psychological research has revealed that a relatively new concept of problematic Internet use (PIU) is associated with gender, personality variables such as extraversion, impulsivity, self-esteem, the need for cognition and sensation seeking. Furthermore, PIU has been shown to be also associated with stressful life events, social anxiety, loneliness, family communication, social interaction, coping, depression, well-being and academic performance related variables. This study explores PIU in relation to the perception of stress and life orientation and aims to contribute to the data-based PIU prevention. The main objective of this study is to investigate the effect of gender, life orientation, as well as perception of stress on PIU. *Design:* A cross-sectional design was used. *Methods:* 817 first year university students from Slovakia (74.5% females, 19.6 mean age) completed the Perceived Stress Scale, Revised Life Orientation Test and Generalized Problematic Internet Use Scale 2. Two-way between groups ANOVA was used for the data analysis. *Findings:* The interaction effect between gender and life orientation was not statistically significant ( $F=0.846$ ,  $p=.43$ ). There was a statistically significant main effect for life orientation ( $F=9.554$ ,  $p=.001$ ), although the effect size was small. The interaction effect between gender and perception of stress was not statistically significant ( $F=1.096$ ,  $p=.34$ ). There was a statistically significant main effect for perception of stress ( $F=12.562$ ,  $p=.001$ ) but, the effect size was small. It was found, that students with a lower level of life orientation, as well as a higher level of perceived stress seem to have higher levels of problematic Internet use. *Conclusions:* The development of life orientation, coping with stress, and reflection / deconstruction of perception of stress among first year university students could contribute to prevention of PIU according to these research results.

**Keywords:** Life orientation, Perception of stress, Problematic internet use, University students.

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### 1. Introduction

Research findings regarding the risk factors of problematic Internet use are very much needed (Aboujaoude, 2010). The research of associations of problematic Internet use with perception of stress and life orientation could contribute to the data-based problematic Internet use prevention among first year university students with a possible special pattern of risk behavior.

### 2. Design

A cross-sectional design was used.

### 3. Objectives

The main aim of this study was to investigate the effect of gender, life orientation, as well as perception of stress on problematic Internet use (PIU).

### 4. Methods

#### 4.1. Sample

817 first year university students from Slovakia (74.5% females, 19.6 mean age) participated in the SLiCE study (Student Life Cohort in Europe). SLiCE is a 5 year follow-up

cohort study conducted among first year university students (<http://www.slice-study.eu/>). All first year university students from two universities in the Eastern part of Slovakia were contacted by university e-mail, as well as personally during their courses with the offer to participate in this study. Those first year students, who signed the consent form, were asked to fill in on-line questionnaires concerning perceived stress, life orientation and problematic Internet use.

#### **4.2. Measures**

The Generalized Problematic Internet Use Scale 2 (Caplan, 2010) has 15 items and all the items are on a scale ranging from 1 (definitely disagree) to 8 (definitely agree). A higher score indicates more problematic use. Cronbach's alpha in this study reached 0.91.

The Perceived Stress Scale (Cohen, 1983) is a four-item self-report instrument with each item measured on a five-point scale (1 = never, 2 = almost never, 3 = sometimes, 4 = fairly often, 5 = very often). Cronbach's alpha in this study reached 0.73.

The Revised Life Orientation Test (Scheier, Carver, & Bridges, 1994) is a ten-item measure of generalized dispositional optimism (versus pessimism). The score ranges from 0 to 24 with a higher score indicating higher optimism. Cronbach's alpha in this study reached 0.79.

#### **4.3. Statistical analyses**

Visual Binning was used to identify suitable cut-off points to break the continuous variables perceived stress and life orientation into three approximately equal groups. Two-way between groups ANOVA was used for the data analyses.

### **5. Findings**

The interaction effect between gender and life orientation was not statistically significant ( $F = .846$ ,  $p = .43$ ). There was a statistically significant main effect for life orientation ( $F = 9.554$ ,  $p = .001$ ), but the effect size was small (partial eta squared = .03).

The interaction effect between gender and perception of stress was not statistically significant ( $F = 1.096$ ,  $p = .34$ ). There was a statistically significant main effect for perception of stress ( $F = 12.562$ ,  $p = .001$ ), although the effect size was small (partial eta squared = .03). It was found, that students with a lower level of life orientation, as well as a higher level of perceived stress seem to have higher levels of problematic Internet use.

### **6. Discussion**

The findings of this study are consistent with other studies which have found support for the association between problematic Internet use and stressful conditions, and between problematic Internet use and life stress (De Leo, Wulfert, 2012, Echeburua, de Corral, 2010). The main effect for gender was not statistically significant in this study, but other findings regarding the effect of gender have been shown as inconsistent. The prevalence of problematic Internet use in some studies has not shown to vary according to gender (Li, Wang, Wang, 2009). However, other studies have found the associations between male gender, higher educational achievement, financial stress and problematic Internet use (Aboujaoude, 2010, Kim, Davis, 2009). The unrealistic optimism effect regarding positive and negative consequences resulting from Internet use was positively related to problematic Internet use (Kim, Davis, 2009). The results of this study have confirmed the effect of life orientation (generalized dispositional optimism) on problematic Internet use. This study has addressed a relatively new topic regarding the research of life orientation related to problematic Internet use.

### **7. Conclusions**

The results of this study have revealed that problematic Internet use of Slovak university students is below average and that students with a lower level of life orientation, as

well as a higher level of perceived stress seem to have higher levels of problematic Internet use. The development of life orientation, coping with stress, and reflection / deconstruction of perception of stress among first year university students could contribute to the prevention of PIU according to these research results.

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# AN INTEGRATIVE CONCEPTUAL FRAMEWORK FOR UNDERSTANDING CHILD ABUSE

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## Abstract

There is a wide body of literature on child abuse occurring within the family where the perpetrators are parents, siblings and extended family members. Major foundational theories of family science each have their own limitations when applied to the context of child abuse within the family. The aim of this paper is to integrate assumptions and concepts from three fundamental theories (Biosocial, Life Course and Human Ecology Theory) to an internally consistent and coherent new framework, which addresses the complexity of child abuse and its impact on children, families and communities. The paper presents the assumptions and concepts that are derived from each specific theory to utilize in the foundation of the proposed model. It speaks to the purposes why these assumptions and concepts are chosen to synthesize into, and how each contributes to the comprehensiveness of the new model. The proposed framework embraces a bio-psycho-social perspective through a developmental trajectory. The new model provides a comprehensive understanding for clinicians and researchers on the nature, and the short-term and long-term implications of child abuse from the perspectives of victims, perpetrators, families and communities. The framework also proposes effective policy models in the area of prevention and intervention of child abuse. The proposed model has limitations regarding assessment due to framework's broad and complex scope.

**Keywords:** *Child abuse, Trauma, Violence family, Prevention.*

## 1. Introduction

The aim of this paper is to synthesize assumptions and concepts selected from three foundational family science theories; Biosocial, Life Course and Human Ecology Theories, into one internally consistent set to address the issue of physical, psychological and emotional child abuse within the family. Sexual abuse of children is not included in the scope of this paper because it significantly distinguishes from other types of child abuse in terms of its reasons and short-term and long-term consequences. This synthesized set will not only help us understand and explore the phenomenon of child abuse more comprehensively, but also it will advance the knowledge in child abuse treatment.

## 2. Major Assumptions and Concepts of the New Theory

### 2.1. Concepts and Assumptions from Human Ecology Theory

Human ecology theory is a crucial theory in understanding the impacts of child abuse within the family, from multiple layers such as familial, cultural and societal levels. According to human ecology theory, organisms interact with their environment to form an ecosystem. Environment, an essential concept in human ecology theory, is also essential in exploring how child abuse happens and continues within families, therefore we will select environment as a concept to include in our new model. Environment consists of physical, biological, social, economic and political surrounding. In the case of child abuse, socio-cultural environment is as important as child's physical and biological environment. Adaptation, another significant concept of the theory, refers to organisms and systems changing themselves or their environments in order to achieve their goals. According to family ecology theory, families replace their set of rules with others in order to survive and achieve their goals. If the family's

goal is to maintain its presence, then the parents may adapt their behavior around abuse to maintain the family's homeostasis (Bengston et al., 2005).

Family Ecology Theory assumptions build a foundation for understanding child abuse in the families; therefore several of them will be utilized in our new synthesis model. The first assumption of "families and their environment are interdependent" explains how child abuse can stop or continue due to the family ecosystems' interaction with other environments. This is also explained by the second assumption which claims "families are part of the total life system, so they are interdependent with other forms of life". The third assumption is about the adaptability of families and it is a continuous mutual process where the families modify and change their environment where they also adapt to their environments. The fourth assumption suggests all parts of the environment are interrelated and influence each other which is related to the fifth assumption of "families interact with multiple environment" and another assumption which states "environments do not determine but pose limitation and constrains as well as possibilities and opportunities for families" (Bengston et al., 2005).

## **2.2. Concepts and Assumptions from Life Course Theory**

Life course theory helps us understand and examine the impacts of childhood abuse on later life experiences. The concepts of transition and trajectory are central in understanding why childhood abuse impacts individuals more adversely than abuse happening at other periods of their lives. Childhood abuse takes place in the early life of the child, which is a very crucial period for personal, physical and psychological development. In most cases, abuse occurs before or during adolescence, which is the transition period to adulthood. As a result, abuse in childhood and adolescence, may significantly influence adult life course trajectories. The life-course theory concepts such as pathways, roles and turning points are also helpful in understanding how extensively childhood trauma can impact the life course of both individuals and families. In some cases, children's behaviors, self-perceptions, relationships and trajectories may undergo a major negative change after abuse, which can be a turning point in their lives, negatively affecting their developmental pathways (Bengston et al., 2005).

Life course theory assumptions build a foundation for our understanding of long-term consequences of childhood abuse in the families. The assumption, which claims that "meaning is socially constructed" refers to larger societal norms, values and traditions of family members' experiences and interpretations of life events (Bengston et al., 2005). As the assumption suggests, the shared meanings of child abuse in cultural values help us to create and interpret the meaning and outcomes of abuse. The theory also highlights development as a dynamic process, which is another important assumption. It focuses on mutual and reciprocal relationships between individual, family and society. The long-term consequences of childhood abuse may affect family homeostasis, adaptability and stability; and result in changes in family dynamics and social relations. Heterogeneity assumption of the theory points out that structures and processes of the development are diverse and differ according to time and context, which captures the complex nature of childhood abuse and its impacts.

## **2.3. Concepts and Assumptions from Biosocial Theory**

Biosocial theory brings another unique contribution to our new model by emphasizing the role of biology and evolution and its interaction with society. Biosocial theory will help us understand the biological predispositions of parental aggression and/or stress, which cause child abuse in the families. According to biosocial theory, family has played a vital role in the evolution of human kind. Concepts such as nepotism (organisms tend to invest in their offsprings) and "inclusive fitness", which are integrated into everyday family functioning, are useful in understanding child abuse in the families. Parents may invest in their biological children more because only they are eligible to pass their parent's genes on to future generations. The concept of inclusive fitness, which "embraces kin as an extension of oneself and one's genes in biosocial theory", explains why children are more likely to be abused by step or foster parents than their biological parents (Bengston et al., 2005).

The theory points out three major factors, which should be emphasized in investigating human behavior: biological, biosocial and social. In child abuse cases, the combination of all

these three factors provides us a broader understanding of the phenomena. For example, inclusive fitness and kinship are not the only factors, which predict child abuse within family. There are other environmental and social factors, which influence parental investment and child abuse such as scarce resources, child rearing practices in specific cultures or child disciplining methods in the family. Therefore, child abuse within family cannot be observed from only a biological or social perspective. Biosocial theory, which emphasizes the combination of these different factors, provides a better and broader understanding of our research question. (Bengston et al., 2005).

### 3. Strengths and Limitations of the Proposed Model

The proposed model has several strengths in explaining child abuse within families. It provides an ecological perspective, which takes multiple layers of environments into consideration, matching with the complexity of child abuse phenomenon. The proposed model also views child abuse from a life course perspective (from birth to death) therefore is successful in grasping the complex multiple and interdependent pathways as well as normative and non-normative transitions and long-term consequences of childhood abuse. Another strength the model brings is that it relates the effects of age, generational, and periods to the life experiences, and therefore makes it highly applicable to the research area of childhood abuse. It also provides multiple methodologies relevant in exploring long-term effects of childhood abuse from various qualitative to quantitative methods. Finally by including the impact of biology, it brings attention back to a long forsaken area in family sciences.

There are several limitations to our synthesized model. First of all the scope of proposed model is very broad and inclusive. Therefore, although our proposed model provides a comprehensive description of reasons and outcomes of child abuse within the context of families, it becomes challenging to assess and intervene in child abuse considering all reciprocal influences of individual, family, society while taking the time and context into account as well. This makes the assessment of our research question very complex and costly (in terms of collecting data), which is a limitation of our proposed model.

### 4. Conclusion

The proposed model composed of several concepts and assumptions from three different theories: human ecology, life course and biosocial, brings a comprehensive and coherent understanding of child abuse in the context of family. It includes a multilevel (micro and macro) and across time and context approach, which is vital in exploring the reasons, long-term and short-term outcomes of child abuse effectively. Despite the limitation of being a very broad and complex theory, the model has many strengths and uniqueness, which combines necessary concepts and assumptions from other three theories to address the child abuse issue within family, to the fullest extend.

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# THE INFLUENCE OF SAFE DRIVING PUBLIC SERVICE COMMERCIALS ON DRIVERS' BEHAVIOR DEPENDING ON THEIR SENSATION SEEKING LEVEL

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## Abstract

It has been proved, that those at road risk are individuals with high sensation seeking (SS) level – a personality trait defined by M. Zuckerman. High SS prefer public service announcements (PSAs) of high message sensation value (MSV). Thus, it is worth to investigate, how the highly arousing PSAs actually affect drivers, according to their SS level. Hypothesis: young adult drivers will be less willing to take risk in traffic situations after watching high MSV safety driving PSAs. One hundred car drivers aged 18 – 30 took part in the experiment. Male – 62; female – 31. Participants completed the „Brief sensation seeking scale”. After, in the 1st experimental group they watched a video with 3 low sensation value safety driving PSAs, in the 2nd – with 3 highly arousing PSAs, in control – with no PSAs. Participants then performed “Vienna Risk-Taking Test Traffic”. Both SS  $\beta=0,45^{***}$  and PSAs  $\beta= -0,28^{**}$  have a statistically significant impact on the willingness to take risk in traffic,  $p<0,01$ . The results show that highly arousing safety driving PSAs reduce the willingness to take risk in traffic.

**Keywords:** *Sensation seeking, Message sensation value, Risky driving.*

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## 1. Introduction

### 1.1. Sensation seeking

Zuckerman (2007) has shown that high sensation seekers (HSS) significantly differ from low sensation seekers (LSS) in their emotional and physiological reaction to and enjoyment of stimulation and experience that has high sensation and/ or risk potential. Zuckerman defines sensation seeking (SS) as: „the need for varied, novel, and complex sensations and experiences and the willingness to take physical and social risks for the sake of such experience.” (Zuckerman, 2007, p. 49).

High scores on SS are associated with various kinds of antisocial behavior. For example, drug use (Kopeikin, 1997) and reckless driving (Steinberg, 2007). These results allow to conclude that HSS are a potential risk group in terms of law violation and health-threatening behavior.

### 1.2. Message Sensation Value

HSS are more responsive to loud, bright, dynamic and creative audiovisual stimuli. Research (Helme et al., 2007) shows that graphic, fast moving, dynamic scenes are more effective with HSS smoking adolescents whereas visually and audially unsaturated anti-smoking campaigns are more effective with LSS. Such campaigns in general can be divided into two groups: 1) with high MSV and 2) with low MSV. Message features forming high MSV are: novel, dramatic, graphic, stimulating, inconceivable and explicit. These features trigger message recipient's emotions and the emerging effect is accordant with the SS level (Palmgree et al., 2002).

In previous research the analysis of SS and MSV has been based on two theoretical models (Morgan et al., 2003): information activation model (Donohew et al., 1980), and information processing capacity model (Lang et al., 1996). HSS consistently prefer messages that match their need for stimulation (Morgan, 2003).

### 1.3. Risky driving

In general, people evaluate road-related risks as relatively high, just below risks concerning smoking, alcohol consumption and drug use; but they also evaluate the positive outcome of risky driving as relatively high (Zuckerman, 2007). Speed and reckless driving are

intense stimuli, which stimulate higher dopamine excretion in the brain areas responsible for reinforcement in HSS; in LSS the same stimuli stimulate higher excretion of noradrenaline and serotonin, which are responsible for anxiety. Thus, the same stimulus have different effects – reinforces the willingness to repeat the action in HSS and suspends the willingness to repeat in LSS. It is worth to mention that speed is a goal in itself for HSS drivers - they change lanes frequently and tailgate (Zuckerman, 2007). One third of all road accidents in Latvia are caused by speeding and drivers aged 18-30 - the age when SS is at its peak (Zuckerman, 2007).

In order to prevent risky driving PSAs are created and transmitted through media. More effective way in doing it is pointing out the fear of death (Fishbein et al., 2002). On the other hand some conclude that PSAs are not effective in relevance to younger HSS (Steinberg, 2008) because SS is 50% innate trait.

H: Young adult drivers will be less willing to take risk in traffic situations after watching high MSV safety driving PSAs.

## 2. Method

### 2.1. Sample of the Experiment

One hundred licensed drivers aged 18-30 ( $M=26,52$ ;  $SD=3,15$ ) took part in the experiment. Participants were randomly split into 3 groups: 1st experimental - safety driving PSAs of low MSV, 2nd experimental - PSAs of high MSV and control - no PSAs. In the 1st experimental group there were 31 drivers, in the 2nd - 35 drivers, in control - 34 drivers. There were 69 males and 31 females. Married – 43, single – 57; 21 - having children. Native language of 77 participants is Russian, 19 – Latvian, 4 – other.

### 2.2. Measures

Demographic data was collected and then participants completed the „Brief sensation seeking scale (BSSS)” (Stephenson et al., 2003). The scale consists of 8 statements valued from 1 – strongly disagree to 5 – absolutely agree.

Videos. In the control group the video about dolphins with no PSAs attached. In the 1st experimental group – with 3 safety driving PSAs with low MSV. In the 2nd experimental group – with 3 safety driving PSAs with high MSV. The films are 7, 9 and 9,39 minutes long accordingly. Videos were shown on Samsung Tab 8.9 inch.

Vienna Risk-Taking Test Traffic (WRBTv; Hergovich, Bognar, Arendasy, & Sommer © SCHUHFRIED GmbH). WRBTv consists of 24 traffic situations shown in video version. During each video (each traffic situation) participant has to push the button on the desk in the moment asked by instructions.

### 2.3. Procedure

The random assignment was used. Participants were recruited individually and they also took part in the experimental study one by one. Participants (42) were tested in the University Laboratory. The rest 58 were tested outside the University, using the same procedure. There are no significant differences between the two groups.

Participants sat at the computer desk and filled in the demographic data and BSSS. Then - watched the video. After watching the video, participants were asked to take the WRBTv. Three surveys were adapted from English to Russian – the BSSS, MSV, PMSV. Six safety driving PSAs were tested in pilot study using the PMSV.

## 3. Results

The results are consistent with the SS theory – men ( $M=27,38$ ;  $SD=5,99$ ) score higher than women ( $M=25,11$ ;  $SD=6,1$ ) on SS scale although the difference is not statistically significant  $t(98)=1,75$ ,  $p>0,05$ . In Vienna Risk-Taking Test Traffic men also score higher ( $M=8,92$ ;  $SD=1,41$ ) than women ( $M=8,05$ ;  $SD=1,39$ ),  $t(98)=2,87$ ,  $p<0,01$ . HSS score higher on the Vienna Risk-Taking Test Traffic,  $t(98)= - 4,37$ ,  $p<001$ . HSS ( $M=9,23$ ;  $SD=1,48$ ), LSS ( $M=8,07$ ;  $SD=1,17$ ).

A statistically significant regression model was achieved  $F(2; 97) = 13,71$ ,  $p<0,001$ ,  $R^2 = 0,22$ , Adjusted  $R^2 = 0,2$ . Both SS  $\beta=0,45^{***}$  and PSAs  $\beta= -0,28^{**}$  have a statistically

significant impact on the willingness to take risk in traffic,  $p < 0,01$ . As to an interaction no statistically significant results are found, but the tendency shows the effectiveness of PSAs. Respondents in the 2nd experimental group have the lowest level of willingness to take risk in traffic ( $M=8,27$ ;  $SD=1,38$ ), comparing to the 1st – ( $M=8,81$ ;  $SD=1,44$ ) and control ( $M=8,89$ ;  $SD=1,49$ ) groups.

#### 4. Discussion

The results are consistent with the SS theory. Although the interaction between SS and the level of MSV does not appear to be significant, the results show that highly arousing safety driving PSAs reduce the willingness to take risk in traffic in both – HSS and LSS. The results suggest it is valuable to conduct highly arousing PSAs to reduce the risky behavior even not focusing on the SS level.

As to low MSV PSAs – they do not lessen the willingness to take risk as much as high MSV PSAs in both experimental groups, but in HSS it is more explicit.

Interaction effect is manipulation dependent – opposite effect (of the match between SS and MSV) usually appears if PSAs are shown in blocks (e.g Rosenbloom, 2003) - highly arousing PSAs increased the speeding rate even more; proper effect appears mostly in communication research publications (e.g Health Communication).

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# HIGH WORKING MEMORY CAPACITY PREDICTS LESS RETRIEVAL INDUCED FORGETTING

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## Abstract

**Background:** Working Memory Capacity (WMC) is thought to be related to executive control and focused memory search abilities. These two hypotheses make contrasting predictions regarding the effects of retrieval on forgetting. Executive control during memory retrieval is believed to lead to retrieval induced forgetting (RIFO) because inhibition of competing memory traces during retrieval renders them temporarily less accessible. According to this suggestion, superior executive control should increase RIFO. Alternatively, superior focused search abilities could diminish RIFO, because delimiting the search set reduces the amount of competition between traces and thus the need for inhibition. Some evidence suggests that high WMC is related to more RIFO, which is inconsistent with the focused search hypothesis. **Methodology/Principal Findings:** Using the RIFO paradigm, we created distinct and overlapping categories to manipulate the amount of competition between them. This overlap increased competition between some categories while exclusive use of weak exemplars ensured negligible effects of output interference and integration. Low WMC individuals exhibited RIFO within and between overlapping categories, indicating the effect of resolving competition during retrieval. High WMC individuals only exhibited between-category RIFO, suggesting they experienced reduced competition resolution demands. Low WMC Individuals exhibited the strongest RIFO and no retrieval benefits when interference resolution demands were high. **Conclusions/Significance:** Our findings qualify the inhibitory explanation for RIFO by incorporating the focused search hypothesis for materials that are likely to pose extraordinary challenges at retrieval. The results highlight the importance of considering individual differences in retrieval-induced effects and qualify existing models of these effects.

**Keywords:** *Retrieval Induced Forgetting, Working Memory Capacity, Executive Control, Inhibition, Episodic Memory.*

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## 1. Introduction

In this study we look at executive control contributions in retrieval induced forgetting (RIFO) from an individual differences perspective. Previous work indicates that executive control abilities are directly related to working memory capacity (WMC). WMC is widely believed to be not merely a measure of storage capacity (Vogel, McCollough, & Machizawa, 2005) but also reflects the ability to control attention or suppress irrelevant information (Conway, Cowan, & Bunting, 2001; Kane, Bleckley, Conway, & Engle, 2001; Redick, Heitz, & Engle, 2007).

With regards to executive control and RIFO, the evidence appears to be mixed. In line with the notion that executive control processes are applied during retrieval practice, RIFO disappears when a secondary task taxing executive control is introduced during retrieval practice (Román, Soriano, Gómez-Ariza, & Bajo, 2009). Additionally, Bäuml and Hanslmayer (Aslan & Bäuml, 2010) used operation span scores as a measure of WMC and correlated it with RIFO effects derived from an item recognition task. The positive correlation between WMC and RIFO scores suggested that high WMC individuals applied more executive inhibitory control during retrieval practice, leading to more forgetting of related items.

A possible explanation for the current discrepancies might be found when considering that inhibition comprises different sub-processes. Latent variable analysis has shown that inhibition within memory seems to be dissociable from the inhibition of response tendencies such as moving the eyes to fixate a visual target (Friedman & Miyake, 2004). Controlled search as related to resistance to proactive inhibition thus seems unrelated to resistance to distractor

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interference (Friedman & Miyake, 2004). To illustrate, in cued recall, low WMC individuals recall fewer items, make more errors, and have longer recall latencies than high WMC individuals (Unsworth, 2009). These findings are consistent with the idea that individuals with low WMC search a bigger set of items retrieved from long term memory (LTM) than their high WMC counterparts. These differences could be explained by the specificity of retrieval cues (Unsworth & Engle, 2007). We therefore examine the contribution of controlled search and executive control on RIFO effects. Expanding on the findings of Bäuml and Hanslmayer (Aslan & Bäuml, 2010), who show a positive relationship between WMC and RIFO, we argue that controlled search for high WMC individuals would prevent competition between items to arise and thereby diminish the need for inhibition.

## 2. Materials and Methods

### 2.1. Procedure

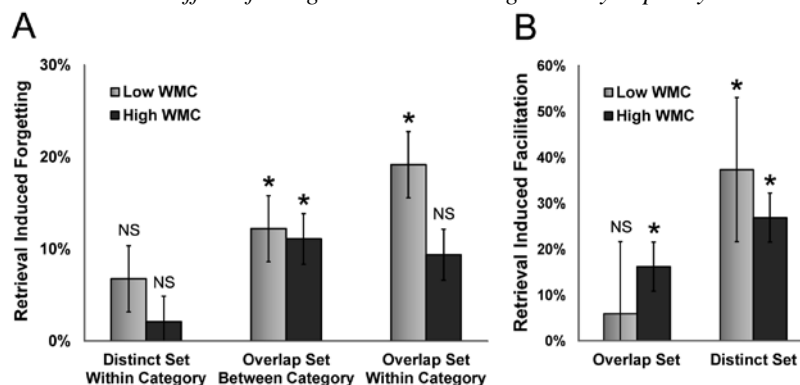
The procedure followed the retrieval practice paradigm developed by Anderson et al. (Anderson et al., 1994). The experiment consisted of five phases: Study, retrieval practice, filler task, cued recall and the free recall. In the study phase, participants were instructed to study category-exemplar combinations and to remember the exemplars by relating them to their category. Each trial consisted of a central fixation point for 1000 ms, followed by a blank screen for 500 ms, followed by one of the “category – exemplar” combinations for 5 s, followed by another blank screen for 500 ms, before the next trial began.

In the retrieval practice phase, participants were instructed to complete category-plus-one-letter-stem cues for the RP+ and filler items, with exemplars that were learned during the study phase. A trial began with a fixation point for 1000 ms, followed by a blank screen for 500 ms, followed by a category-plus-one-letter stem cue (e.g. Hobby – R\_\_\_\_) with an empty square underneath. Participants entered their response and after they confirmed by pressing Enter, the correct answer was shown for 2 s (e.g. Hobby – Rugby), followed by another blank screen for 500 ms, before the next trial began.

Next participants completed a filler task, a 25-minute visual change detection task. This was meant to allow time for consolidation of the category-exemplar pairs into long-term memory, while preventing active rehearsal of these materials. In the cued recall phase, participants were instructed to complete category-plus-one-letter-stem cues of all items, with exemplars learned during the study phase. Each trial began with a fixation point for 1000 ms, followed by a blank screen for 500 ms, and finally a category-plus-one-letter-stem cue with an empty square underneath. Participants were asked to respond within 7s and press enter to get to the next cue or press enter immediately to indicate that they do not know the correct answer. The whole experimental session lasted about 60 minutes.

## 3. Results

*Retrieval induced effects for high and low working memory capacity individuals.*



(A) RIFO scores were calculated by subtracting average performance of DS RP-, OS NRP and OS RP- from DS NRP performance. (B) RIFA scores were calculated by subtracting average performance of DS NRP from OS RP+ and DS RP+ performance. The \* and NS show



the results of the comparison between DS NRP and respective retrieval status performance. \* means the difference is significant, whereas NS means the difference is nonsignificant  $p < .05$ . In the overlap set, within category, low WMC individuals show RIFO but no RIFA and high WMC individuals show no RIFO but intact RIFA.

#### 4. Discussion

We have investigated the relationship between WMC and retrieval-induced effects under conditions of high and low interference. Our design included sets of overlapping and distinct items, directly contrasting the effects of low and high interference resolution demands. Factors that are known to influence RIFO, like output interference and integration, were controlled for by using weak items of low taxonomic frequency. In line with the notion that RIFO is caused by resolving interference during retrieval and the subsequent suppression of features (Anderson & Spellman, 1995), we only found RIFO under conditions of high interference. This is in line with the feature suppression model, which states that an item is less likely to be retrieved when its features are inhibited during retrieval practice.

Our findings lend support to the inhibitory account of RIFO (Anderson et al., 1994; Anderson, Green, et al., 2000) and the feature suppression model (Anderson & Spellman, 1995). High WMC individuals seem better able to control interfering information during retrieval from long-term memory which supports the controlled search hypothesis (Unsworth & Engle, 2007; Unsworth et al., 2010) and adds an important dimension to our understanding of retrieval-induced effects which may explain some disparities in the literature.

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## PERCEPTUAL LEARNING IN DYSPLEXICS AND CONTROLS

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### Abstract

Perceptual learning is considered a mechanism by which vision system automatically and implicitly improves by specific training. This mechanism is supposed to be related to attention, perception and memory functions. Although a lot of studies on dyslexics evidenced impaired motion perception and deficit in procedural learning, a lack of consensus concerned these issues. The aim of this study is to examine whether the perceptual learning would produce different patterns of results in a visual motion discrimination task in dyslexics and controls. Thirty-two subjects (9 dyslexics and 23 controls) take part in the experiment. A modified task irrelevant perceptual learning procedure is used (TIPL by Seitz and Watanabe, 2003). The procedure consists of three phases: pre-test, training and post-test. During the pre-test the motion perception ability is evaluated using motion coherence test. Then, each subject is exposed to seven training sessions, in three days. The learning is mediated by subliminally pairing one selected direction with specific targets of an unrelated training task. The day after the subject motion perception ability is evaluated (post-test phase). The difference between pre and post- tests represents the implicit learning effect. A significant learning effect is found in controls, while the dyslexics subjects have lower improvement after the training. These results support the hypothesis that dyslexics have implicit learning difficulties associated to perceptual deficits.

**Keywords:** *Perceptual learning, Dyslexia, Motion perception, Development, Vision.*

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### 1. Introduction

Many researches point out different neurocognitive hypothesis related to the etiology of developmental dyslexia. Among these hypotheses, the magnocellular theory of dyslexia underlines that developmental dyslexia is caused by specific deficit in the magnocellular visual system. As related to this hypothesis, Nicolson and coll. (2001) evidenced cerebellar dysfunctions in dyslexia (e.g. the inability to automatize specific procedures). However, a lot of criticisms concern these findings. It is still not clear how the magnocellular deficit could determine the specific deficit in learning to read.

Perceptual learning has been studied as a mechanism by which people automatically and implicitly learn. Even if learning is considered an attention guided process (Ahissar & Hochstein, 2004), it has recently been evidenced that in the implicit learning can occur also in absence of attention (Seitz, 2003). Recent model of perceptual learning (Seitz, 2005) has suggested the possibility to learn by using an irrelevant task training. This model has been widely applied in healthy adults and using motion perception tasks. The results evidenced that typically developed adults could improve the ability in motion perception by using this procedure. However, the duration of the learning effect and the specificity of the mechanisms improved by task irrelevant procedure should be better investigated.

### 2. Design, Objectives and Methods

The aim of this study is to analyze the perceptual learning in magnocellular system in a sample of dyslexic's children as compared to controls, by using modified task irrelevant procedure.

Thirty-two participants (age range 12-26 years) took part in the experiment. The Dyslexia group was evaluated by means of intelligence scale (Raven, 1938) and reading abilities (Sartori, 1995) and it is composed of nine subjects. The control group consists of twenty-three typically development subjects.

The procedure consists of three phases: pre-test, training and post-test. During the pre-test the motion perception ability is evaluated using the motion coherence test (Menghini et al., 2010). Then, each subject is exposed to seven training sessions, in three days. The learning is mediated by subliminally pairing one selected direction with specific targets of an unrelated training task. The day after the training the subject motion perception ability is evaluated (post-test phase). The difference between pre and post- tests represents the implicit learning effect.

In the motion coherence test the subject is asked to discriminate the direction of coherent white high luminance dots moving on a black background presented on a computer screen. The stimuli is composed by 200 dots moving at a constant velocity of 12 deg/sec, subtending a circle area of 7 deg . Each dot had a limited lifetime of three-frame. The level of coherence was set at 10%, as a measure of chance level performance of all the subjects. The coherent dots move in a coherent direction (up, right, down, left) while the rest of the dots move in brownian manner.

In the training session a standard task irrelevant procedure is used. The subject is asked to recognize a set of stimulus target (4 chart figures: spades, flowers, diamonds, hearts) within some distractors (letters), while at the same time on the background the motion stimuli is presented at a very low luminance level (0.14 cd/m<sup>2</sup>). The learning effect is mediated by subliminally pairing the target to a specific direction, while the distractors are always paired to the other directions. The stimulus target and distractors are both located in the center of the circle where remain visible the motion of the light points.

To analyze the implicit learning effect in the two groups, we used MANOVA for repeated measures, having as dependent variable the percentage of correct answers and, as Within subjects factors, the training effect (2 levels: pre-post) and direction (4 levels: left, right, up, down).

### 3. Results

In the first MANOVA for repeated measures we analyze the learning effect in the dyslexia group. We've not found any significant difference in the implicit learning effect analyzed through the interaction directionXtraining effect ( $F_{(3,24)} = 0.33$ ,  $p = 0.70$ ).

From the Analysis of multiple contrasts we also observed that there is no significant difference in the learning effect specific for the trained direction (directionXtraining effect:  $F_{(1,8)} = 0.89$ ,  $p = 0.37$ ).

In the second MANOVA for repeated measures in the control group we observed a significant difference in the learning effect analyzed through the interaction directionXtraining effect ( $F_{(3,66)} = 4.14$ ,  $p = 0.03$ ). Moreover, the Analysis of multiple contrasts shows a significant learning effect, specific in the trained direction (directionXtraining effect:  $F_{(1,22)} = 5.31$ ,  $p = 0.03$ ).

In particular, we found that the control group improves in the trained direction by 13% (pre: 0,50; post: 0,63) while the dyslexia group improves by 5% (pre: 0,34; post: 0,39).

### 4. Discussion and Conclusion

Although several studies have shown that many individuals with Developmental Dyslexia have a specific deficit of the magnocellular and cerebellar systems, it is still not clear what is the role of these systems in the etiology of the disorder. The purpose of this study is to investigate the effects of an implicit perceptual training specific for the functions of the magnocellular system in subjects with Developmental Dyslexia.

Using a modified experimental paradigm, TIPL (Seitz, 2005), we observe a significant learning effect only in the control group; while no learning effect was found in the dyslexics group.

These results may reflect an inefficiency in reorganization of the visual system after training in the Dyslexia group as compared to the control group. However, it is not yet clear whether these differences are due to a slower perceptual learning mechanisms in dyslexics than in controls or to a magnocellular deficit.

The analysis of the individual characteristics of the dyslexia group shows a strong heterogeneity in learning effect. In fact, although even if among dyslexics there is an improvement after learning for 6 of 9 individuals; among these 6 subjects, some of yours, learn how the controls while others subjects improve their performance of a small percentage. So it would be interesting to understand if this heterogeneity is related to characteristics of the reading disorder or other cognitive factors. In fact his heterogeneity may be reflecting different levels of severity of the reading disorders and different deficits may be an indication of an inefficiency reorganization of the visual perceptual system after training.

In this study we observe that nor did the level of intelligence neither reading abilities influence learning effect. However the sample of dyslexics used for these studies is still too small to make conclusive remarks about, so it would be interesting to go to also consider other skills, impaired in dyslexics, which could influence the performance of the MPL such as: visual-spatial ability, working memory or visual attention.

Another limitation of this study is the high level of variability of age present in the sample. In order to exclude the influence of age of the subjects on the MPL performance, was introduced to the age as covariate in the analysis. This analysis did not produce significant effects so then it was not included in the final analysis.

So even if this study presents these methodological limitations the results leave open some perspectives for people with Dyslexia. For example, it remains unclear whether a longer training would allow all the subjects to learn and if this were possible it would be interesting to see if this effect improves visual-spatial perceptual performance of subjects.

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## ATTENTIONAL BIASES DEPENDENTS OF EMOTION: A PILOT STUDY IN PEOPLE WITH CHRONIC PAIN

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### Abstract

Experimental evidence suggest that chronic pain condition can introduce modulations in attentional processing in adults. In the present study, we try to understand this phenomenon through cognitive tasks. We combined a modified Stroop and a Dot-probe paradigm in order to study attentional deviation to pain-relevant stimuli in chronic pain individuals and controls. Behavioural data (responses and reaction times) were analyzed. Preliminary results suggest an attentional biases to pain-relevant stimuli in comparison to the neutral ones. This effect seems to be more pronounced in participants with chronic pain, although it is needed further research with larger sample sizes.

**Keywords:** *Chronic pain, Attentional biases, Stroop, Dot-Probe.*

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### 1. Introduction

The pain is not limited to biological factors, but also the result of psychological variables. According to Beecher (1956, cit. Araoz, Burte, & Carrese, 1998), pain is a bidimensional experience, and Melzack (1973, cit. in Araoz et al., 1998), for its part, lists some of the possible variables that may influence the individual experience of pain. For example, various studies suggest that the increased latency of response in the modified Stroop task is product of the interference of emotional relevance in the cognitive processing of stimulus (Fisher, Sass, Heller, Levin, Edgar, Stewart & Miller, 2010). That is, a specificity exists between categories of words, including their subjective significance, and that induce cognitive interference (Beck et al. 2001). Thus, it is plausible that a deviation occurs on attentional processing stimuli related to chronic pain condition and, therefore, it assumes an emotional-affective relevance for people who suffer from it.

Different versions of the Stroop paradigm have been applied to study cognitive interference phenomena in basic and clinical research. Other variations have been used in procedures which modified Stroop to identify emotional words that are specific of clinical disorders (e.g., see Beck, Freeman, Shipbird, Hamblen & Lackner, 2001). Other paradigms that have been used to study the modulation of attention in basic and applied research consist of modified Dot-Probe tasks.

Experimental evidence suggest that chronic pain condition can introduce modulations in attentional processing in adults. For the present study, we try to understand this phenomenon through cognitive tasks using proper methodologies.

We combined a modified Stroop and a Dot-probe paradigm in order to test attentional deviation to pain-relevant words in chronic pain individuals and controls. Behavioural data (responses and reaction times) were analyzed.

### 2. Methods

We combined a modified Stroop and a Dot-probe paradigm in order to test attentional deviation to pain-relevant words in chronic pain individuals and controls. Behavioural data

(responses and reaction times) were analyzed from ten women, five patients with fibromyalgia and five healthy participants.

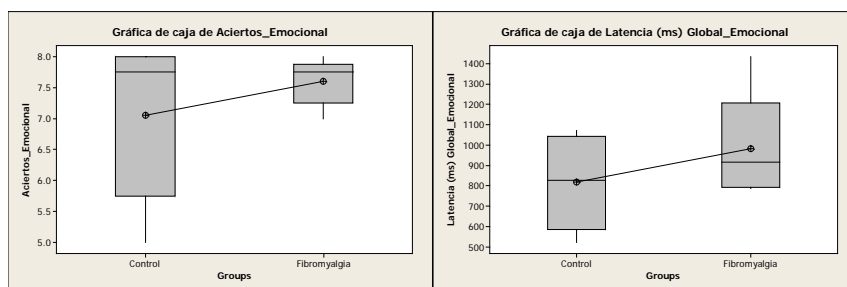
We administered a modified version of the Stroop paradigm in slides and in which emotional and neutral words appeared randomized in different colors (blue, green, red and yellow) on a black background. The participant was instructed to identify the colors (ignoring the meaning) along eight blocks (four blocks of emotional stimulus and four blocks of neutral stimulus), presented in 64 trials in total. In each trial it appeared the word for 1500ms, following an attachment point between 275-725ms, and an interval between trials in 2000 +225 ms.

In the Dot-Probe task other types of visual stimuli were presented -emotional words for the clinical condition and neutral - followed by a small circle. In each trial we presented a central fixation point on the monitor for 500ms, followed by a pair of words (stimuli probe) simultaneously presented for 500ms (one neutral and one emotional or vice versa). Then, the fixation point appeared again during 100-300ms, followed by a circle (target stimulus) positioned randomly in place of one of the words for 150ms. The participant had 1750ms to respond, indicating the location of the target stimulus onset. There were four blocks composed of 20 trials each one, that were preceded by a training block of five trials.

### 3. Results

#### 3.1. Stroop

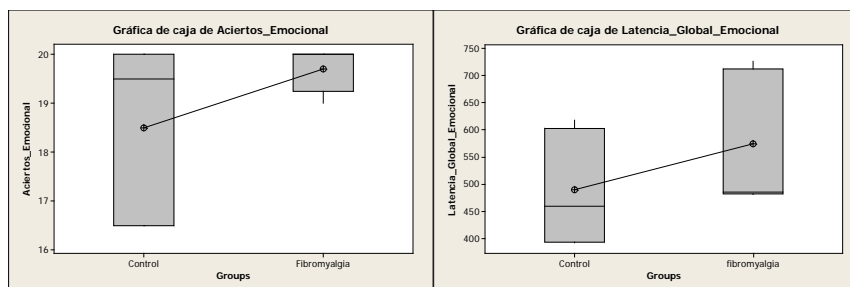
The number of correct answers fibromyalgia ( $M = 7.60$   $SE = 0.37$ ) had a higher mean than the control group ( $M = 7.05$   $SE = 1.30$ ). Was performed t test and these comparisons were not significant.



The average response latency in the Stroop task modified for the control group was ( $M = 817.65$ ,  $SE = 234.17$ ) was lower than the group with Fibromyalgia ( $M = 983.30$ ,  $SE = 264.85$ ). Latency was lower in the control group than in the experimental group, but these differences were not significant.

#### 3.2. Dot-Probe

The Fibromyalgia group presented higher mean for the number of correct answers ( $M = 19.7$ ,  $SE = 0.44$ ) than the control group ( $M = 18.5$ ,  $SE = 1.83$ ). They conducted a t test to explore potential differences ( $t = -1.41915$ ).



The fibromyalgia group had higher latency responses ( $M = 574.81$ ,  $SE = 125.81$ ) than the control group ( $M = 489.96$ ,  $SE = 106.85$ ). No significant differences between their means.

#### 4. Conclusions

Preliminary data suggest an attentional bias to pain-relevant stimuli in comparison to the neutral ones. This effect seems to be more pronounced in participants with chronic pain. However, the sample size of this pilot study was not large enough to obtain conclusive results and future research is needed to confirm effects.

Both in the Stroop task as the Dot-Probe task, the group with fibromyalgia presents for these behavioral data, greater hits and response latency. This precision in the hits may be due to greater resources in evaluating cognitive so that emotional stimuli are consuming more resources on the subject and this further evaluation, resulting in accuracy of response.

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## THE JOINT EFFECTS OF NUMBER OF VOICES AND REVERBERATION ON AUDITORY DISTRACTION

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### Abstract

Background speech is consistently rated as the most objectionable noise in the office and is known to significantly disrupt tasks that involve the sequencing of information. Whereas practical recommendations typically focus on masking the irrelevant sound—which can result in an annoying increase in sound intensity—solutions could be based instead on manipulating inherent properties of office noise. There is ample evidence that acoustic variation in background noise is responsible for disruption of serial processing. Hence, any means of attenuating sound variability such as increasing the number of voices in background speech or the level of reverberation should help counter the negative impact of irrelevant sound. Accordingly, the present study sought to test the joint impact of number of voices and reverberation on distracting effects of extraneous sound. A first experiment showed that disruption of a (visually-presented) serial recall task diminished as the number of superimposed voices in to-be-ignored auditory sequences increased from 3 to 15. The second experiment further revealed that adding realistic office reverberation to the irrelevant sound attenuated the distraction still further. In fact, 15 superimposed voices with a 1-s reverberation time led to performance indistinguishable from that in a quiet control condition. These findings suggest, counterintuitively perhaps, that increasing the number of people occupying a shared office and greater room reverberation may ameliorate the damaging effects of background noise on workplace satisfaction and productivity.

**Keywords:** *Office noise, Auditory distraction, Reverberation, Serial short-term memory, Acoustic variation.*



## DECISION MAKING COMPETENCIES AND RISK BEHAVIOUR OF UNIVERSITY STUDENTS

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### Abstract

*Objectives:* Risk behaviour is a result of various social, demographic, motivational and cognitive factors. The role of cognitive characteristics is relatively less known. The aim was to examine models of adolescent health-risk behaviour using decision-making competencies as possible predictors. *Design:* Social and personality characteristics are the focus of attention in risk behaviour research. The role of decision-making competencies was investigated using regression in cross-sectional design. *Methods:* University students from Slovakia (n=205) filled in six component Adult- Decision Making Competence and reported their substance use (cigarette, marihuana, LSD, amphetamines, excessive drinking) and risk sexual behaviour. Binary logistic and linear regression was performed to assess the relationship between decision-making competencies and risk behaviour. *Findings:* No gender differences were found in risk behaviour, but differences in two of the six decision-making competencies were present. A higher prevalence of risk behaviour was negatively associated with only a small number of decision-making competencies which depended on the type of risk behaviour. *Conclusion:* The results show limited effect of decision-making competencies on risk behaviour with a mixed pattern in different kinds of behaviour.

**Keywords:** Risk behaviour, Decision-making competencies, University students.

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### 1. Introduction

Risk behaviour is a wide concept with many approaches. While they focus mainly on social-demographic (age, gender, social class) or personality factors (extraversion, neuroticism, religiousness), decision-making skills are omitted with few exceptions (Fischhoff et al., 1999).

### 2. Design

A cross-sectional design was used.

### 3. Objectives

The main aim of the study was to investigate the effect of gender and decision-making competence on various kinds of risk behaviour..

### 4. Methods

#### 4.1. Sample

205 university students from Slovakia (58.0% females, age 19-26, mean age 22.1) from two universities were contacted personally during their courses with the offer to participate in the study. A paper-based measure of decision-making competence was filled out and risk behaviour prevalence data and demographic data were collected.

#### 4.2. Measures

The Adult Decision-Making Competence (Bruine de Bruin et al., 2007), A-DMC, presently consists of six subscales (resistance to framing, recognizing social norms, under/overconfidence, applying decision rules, consistency in risk perception, resistance to sunk

costs) differing in question and response mode. Although the range of possible scores is not unified, a higher score means a higher level of decision-making skill.

Fagerstrom test for Nicotine dependence (Heatherton et al., 1991).

8 questions detecting nicotine dependence. A higher score implies stronger dependence

Particular questions detecting other kinds of risk behaviour (smoking, alcohol and marihuana use, sexual behaviour).

### 4.3. Statistical analyses

A binary logistic and linear regression (depending on risk behaviour response mode) was performed to assess the relationship between decision-making competencies and risk behaviour.

## 5. Findings

Neither binary logistic regression (dependent variable smoking during last 3 months: never – at least once) nor linear regression (DP Fagerstrom score by regular smokers: 0-7) showed a significant effect of DMC (Tables 1, 2).

**Table 1:** Binary logistic regression predicting occurrence of smoking

	B	SE	Wald	df	p	Exp(B)
Constant	-1.410	2.226	.401	1	.526	
gender(F=1)	.328	.326	1.008	1	.315	1.388
RtF	-.111	.348	.102	1	.750	.895
RSN	.762	.725	1.105	1	.293	2.143
UOC	.283	1.860	.023	1	.879	1.327
ADR	.392	.766	.262	1	.608	1.481
CiRP	-.587	1.056	.309	1	.579	.556
RtSC	.201	.204	.970	1	.325	1.222

$R^2 = .02$  (Cox & Snell), .03 (Nagelkerke). Model  $\chi^2(7) = 4,137$ ,  $p = .764$

**Table 2:** Linear regression predicting nicotine dependence (Fagerstrom)

	Unstandardized Coefficients		Standardized Coefficients	t	p
	B	SE	Beta		
Constant	5.677	3.935		1.443	.159
Gender (M=1)	1.603	.522	.507	3.069	.004
RtFn	-.059	.694	-.015	-.086	.932
RSN	.684	1.161	.095	.589	.560
UOCn	-2.425	3.297	-.113	-.735	.467
ADRn	-.111	1.403	-.014	-.079	.937
CiRPn	-.106	1.667	-.010	-.063	.950
RtSCn	-.476	.354	-.216	-1.344	.188

$R^2 = .31$ ,  $F(7,39) = 2,03$ ,  $p = .082$

Similar results were found in other types of risk behaviour (alcohol and marihuana use, sexual behaviour) with a very limited effect of DMC (Tables 3, 4).

**Table 3:** Binary logistic regression predicting occurrence of marihuana use (marihuana ever)

	B	SE	Wald	df	p	Exp(B)
Constant	-2.838	2.583	1.208	1	.272	
gender(F=1)	-.419	.370	1.285	1	.257	.658
RtF	.053	.410	.017	1	.897	1.055
RSN	2.007	.892	5.060	1	.024	7.443
UOC	1.822	2.247	.657	1	.418	6.182
ADR	.300	.872	.118	1	.731	1.350
CiRP	-3.489	1.210	8.308	1	.004	.031
RtSC	.425	.241	3.113	1	.078	1.529

$R^2 = .10$  (Cox & Snell), .14 (Nagelkerke). Model  $\chi^2(7) = 20,818$ ,  $p = .004$

**Table 4:** Binary logistic regression predicting occurrence of alcohol use (drunk at least once in last 4 weeks)

	B	SE	Wald	df	p	Exp(B)
Constant	5.285	2.310	5.232	1	.022	
gender(F=1)	-.730	.328	4.968	1	.026	.482
RtF	-.485	.355	1.871	1	.171	.616
RSN	1.204	.723	2.776	1	.096	3.334
UOC	-2.600	1.881	1.910	1	.167	.074
ADR	.343	.780	.194	1	.660	1.410
CiRP	-1.228	1.068	1.320	1	.251	.293
RtSC	-.138	.203	.461	1	.497	.871

$R^2 = .06$  (Cox & Snell), .08 (Nagelkerke). Model  $\chi^2(7) = 12,079$ ,  $p = .098$

## 6. Discussion

Decision-making competencies seem to be a poor predictor of risk behaviour. Decision-making skills have not previously been investigated with relation to risk behaviour, but Bruine de Bruin et al. (2007) report fewer negative life outcomes in subjects with higher score in DMC. The present findings are in contrast with these results which indicate a usefulness of adding other cognitive and mainly social and personality factors. Situational conditions can probably change the direction of this interaction.

## 7. Conclusion

Small effect of DMC on risk behavior shows that their role is very limited and should be investigated in interaction with other personality, social and demographic factors.

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## PREDICTING DYNAMIC DECISION-MAKING USING EYE MOVEMENTS

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### Abstract

The present study aims to examine if the event-based measure of eye movement can reveal the underlying cognitive processes involved in monitoring and dynamic decision-making tasks. In the context of a computer-controlled simulation of radar-based risk assessment, we monitored eye movement and extracted metrics relative to 1) scanpath (measures of search), 2) eye fixations (measures of processing), and 3) pupillary response (measures of cognitive load) in order to predict the quality of decisions and time taken to classify aircrafts displayed on a radar screen according to their level of threat. Based on multiple regressions performed on more than 10,000 classifications, eye-tracking data can explain 63.5% of the variance in decision time but failed to predict classification accuracy. A similar pattern of results emerged when regressions were applied to individual differences: Whereas eye-movement metrics failed to account for variations in decision quality, they can predict about 76.5% of individual differences in the time taken to classify. A closer look at the data revealed that scanpath measures, an index of the efficacy of information seeking during decision-making, are the best predictors of decision time with 40% of explained variance. These findings illustrate how dynamic, event-based measures of eye movement could serve as an assessment method that goes beyond traditional usability testing and provide invaluable insights in the design of decision support systems. However, the observed pattern of results also suggests that the analysis of eye movement does not seem a good indicator of what leads to poor decisions.

**Keywords:** *Dynamic decision making, Eye movements, Microworld, Command and control, Multiple regression.*

# HOME-BASED COGNITIVE REHABILITATION USING DR. KAWASHIMA BRAIN TRAINING IN COGNITIVE IMPAIRED PATIENTS WITH MULTIPLE SCLEROSIS

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## Abstract

**Background:** Cognitive impairment is a disabling symptom of multiple sclerosis (MS), here we used a videogame console, i.e. the Italian version of the Dr. Kawashima's Brain Training (DKBT; Nintendo ©, Kyoto, Japan), as a home-based attempt to improve cognitive functions. **Methods:** We enrolled MS patients aging from 18 to 50 years, right-handed with cognitive impairment assessed with Symbol Digit Modalities Test (SDMT), Paced Auditory Serial Additional Test (PASAT 3), and Stroop test (ST). Patients were randomly assigned in two group: the first (group A) was asked to play with the DKBT at home 30 minutes per day for 5 days per week for a total of 8 weeks; the second (group B) was observed for 8-weeks without any interference. Repeated measures analyses of variance (RM-ANOVAs) were performed; time  $\times$  treatment interaction analyses were run to evaluate treatment effect of DKBT on the cognitive scores. **Results:** We tested 52 patients, of them 35 were assigned to group A (n=18) and group B (n=17). Our population was constituted of 26 females and 9 males with a mean age  $45 \pm 7$  years, a mean instruction level of  $14 \pm 3$  years, a mean MS duration  $12 \pm 8$  years and median EDSS score 3 (range 2 to 6.5). A significant time  $\times$  treatment effect of DKBT was found on STROOP ST ( $F=5,771$ ,  $p=0.022$ ), PASAT 3" ( $F=4,257$ ,  $p=0.048$ ), SDMT ( $F=4,633$   $p=0.039$ ). **Conclusion:** A home-based DKBT program is useful to improve cognitive function in MS whether this approach may support professional psychologist professional intervention remain to be established.

**Keywords:** Cognitive rehabilitation, Multiple sclerosis.

## 1. Background

Multiple sclerosis (MS) is a chronic inflammatory demyelinating disease of the central nervous system with an unknown pathogenesis and an unpredictable course. MS is considered to be one of the most common neurological disorders affecting young adults [1]. Cognitive impairment is a disabling symptom of MS. The main cognitive areas affected are attention, information processing, executive functions, memory and visuo-spatial abilities [2]. It is now established that cognitive impairment has a deleterious impact on one's personal occupation and social function as well as on overall Quality of life (QOL) independent from physical disability [3], thus rehabilitation of cognitive impairment in MS is an emerging issue.

Mattioli et al. reported the efficacy of an intensive computer assisted rehabilitation of attention, information processing and executive functions. After a 3-month intervention, treated patient showed better performance in test of information processing/attention and decision making when compared with untreated patients [4]. This rehabilitative program required a three months training with specific program and the supervision of expert psychologist: time and costs of cognitive rehabilitative program may limit the possibility of merge with real life; therefore the development of home based strategies should be desirable. Here we used a videogame console, i.e. the Italian version of the Dr. Kawashima's Brain Training (DKBT; Nintendo ©, Kyoto, Japan), as an home-based attempt to improve cognitive functions reducing time and costs of cognitive rehabilitation.

## 2. Methods

### 2.1. Participants

We enrolled MS patients aging from 18 to 50 years, right-handed with cognitive impairment with specific deficit on working memory/information processing speed or sustained attention. Cognitive impairment has been defined as failure of least one of the following test considering fifth percentile of normative data [5]: Stroop test (ST), Paced Auditory Serial Addition Test (PASAT) (3s. presentation rate), the Symbol Digit Modalities Test (SDMT). Exclusion criteria were a disease exacerbation in the previous month, any motor or visual condition that could interfere with the performance of training, presence of depression and/or anxiety assessed with the Beck Depression Inventory (BDI) and Hamilton Anxiety Rating Scale (HAM-A).

### 2.2. Procedures

Randomization was carried-out by means of computer-generated random numbers. Patients were assigned in two groups: the first (group A) was asked to perform the training; the second (group B) was observed for 8-weeks without any interference. Both groups underwent a second neuropsychological evaluation at the end of the 8-weeks period, two different version of PASAT, SDMT were used to reduce learning effect. Due to ethical reason after the 8-week observation period, patients of group B were given the possibility to perform the training.

### 2.3 Intervention

The cognitive training has been performed at home with the Italian version of the Kawashima's Brain Training: How Old Is Your Brain? © with Nintendo DS®. Patients were instructed from a psychologist on how perform the training. A second visit with the psychologist was performed after two weeks to check the correct use of the device and the correct performance of the training. During the 8-week training period participants were trained on games of memory, attention, visuo-spatial processing and calculations. Patients will be required to play for 8 weeks, 5 days for 30 minutes a day. The compliance has been controlled through the data recorded on the Nintendo DS device.

### 2.4 Statistical analysis

All values are expressed as a mean  $\pm$  standard deviation (SD) or median (range) value, as appropriate. Repeated measures analyses of variance (RM-ANOVAs) were performed with normalized values at different time-points as the within-subjects factor, and treatment group (A *versus* B) as the between-subjects factor. Each model was also adjusted for the baseline raw values of the considered scale. Time  $\times$  treatment interaction analyses were run to evaluate treatment effect on cognitive scores. All p-values less than 0.05 in either directions were considered as significant. Statistical analyses were carried out by using a PC version of Statistical Package for Social Sciences, version 17.0 (SPSS, Chicago, IL, USA).

## 3. Results

A total of 52 patients were tested for eligibility. Of them, 17 did not met the eligibility criteria, therefore, 35 patients were randomly assigned to group A (n=18) and group B (n=17). Our population was constituted of 26 females and 9 males with a mean age  $45 \pm 7$  years, a mean instruction level of  $14 \pm 3$  years, a mean MS duration  $12 \pm 8$  years and median EDSS score 3 (range 2 to 6.5). No baseline differences were found between groups.

One patient in group B was lost at follow-up. No adverse event or diseases clinical worsening, were observed during the follow-up. The treatment adherence (i.e. no. of days in which patient performed the training/total number of days required) was high, with a mean of 96%. A significant time  $\times$  treatment effect of DKBT was found on STROOP ST ( $F=5,771$ ,  $p=0.022$ ), PASAT 3" ( $F=4,257$ ,  $p=0.048$ ), SDMT ( $F=4,633$   $p=0.039$ ).

#### 4. Conclusion

Our study suggests that cognitively impaired MS patients may benefit from a home-based DKBT program. Further studies are required to confirm these preliminary results, to elucidate the functional substrates underlying the cognitive improvement and finally to evaluate the effectiveness of the procedure in the long term. DBKT cannot replace the work done by an expert neuropsychologist but we can consider this training like a useful instrument for the improvement of cognitive performance, whether this approach may support psychologist professional intervention remain to be established.

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## FORENSIC PSYCHIATRISTS AS EXPERTS IN SCALING CONTENT OF COMPLEX STIMULI (NARRATIVES) FOR AFFECTIVE STATES INVESTIGATIONS

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### Abstract

When researchers exploit texts to examine emotional responses to them, the context effect on the perception of emotional content is a source of challenges. In the present study the efficiency of forensic psychiatrists as experts in scaling affective content of verbal descriptions of several situations was estimated. Fourteen psychiatrists (10 women) with different occupational experience and age estimated 3 narratives with violent content for depressive, anxious and aggressive domains ranging them according to their intensity, using context for assessment of affective words and phrases connotation. Discriminant analysis showed that age and period of occupational experience were independently positively associated with better differentiation of the narratives by depressive and anxious domains and worse differentiation by aggressive domain. Women were more sensitive to aggressive domain with higher scores for aggressive words. Men were less sensitive to emotive effect of the narratives in general with lower scores for all affective words. The results showed that age, gender, and occupational experience of psychiatrists can moderate the evaluation of emotive aspects of the narratives. A future research should show (i) whether emotional reactivity of naïve subjects will be able to similarly discriminate the same narratives, (ii) whether their age and gender will show the similar moderation effects, (iii) whether the discrimination of the narratives by their responses will be closer to responses of less experienced psychiatrists.

**Keywords:** *Forensic psychiatrists, Emotive narratives, Depression, Anxiety, Aggression.*

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### 1. Introduction

Several approaches have been suggested for the estimation of affective content of simple and complex stimuli. In most studies the attention of researches focused on selecting simple stimuli that trigger only one emotion, for example fear or disgust (Bradley et al., 2001; Rosenberg & Ekman, 1995). The restriction of such approach is a weak resembling of those stimuli to complex affective influence of events in everyday life, because context itself can alter perception and pragmatic meaning of stimuli content (Uryvaev et al., 1988; Davydov & Shapiro, 1999; Shapiro et al., 2001; Medford et al., 2005). Exploiting texts and films (clips) to experiments in cognitive sciences can provide the researcher with varied information about the affective and cognitive life of the human. Application of such complicated stimuli is always associated with complex affective influence of the content, and it can not be separated into simple affective components (Davydov et al., 2011, 2012). It raises a challenge of the standardisation of such complex stimuli. In most cases the standardization of them has been made with the help of naïve subjects. However, several investigations showed that naïve people have been restricted in their ability to categorize their emotions or range them to any category (Zuckerman & Litle, 1986; Lang et al., 1999). Moreover, people with mental or emotional problems can not be completely excluded from samples of subjects enrolled from a general population, and these problems can influence their perception of emotive content. It biases their estimates, and thus challenges further this approach of standardization (Lysenko & Davydov, 2011a, 2011b, 2011c). Some previous studies have indicated that the affective standardization of complex stimuli by psychiatrists may be effective (Gottschalk, 1994). Among psychiatrists, forensic psychiatrists have been assumed to be more competent in changes in emotive context of arts, due to their high competence in the detection and the differentiation of emotions, including latent, in their patients. The main objective of the present investigation was to study the most informative psycholinguistic criteria discriminating



narratives using different rules for their emotive content analysis applied to psychiatrists' semantic and connotative estimates of the narratives. Another objective was to evaluate the dependence of the psychiatrists' estimates on their gender, occupational experience, and age.

## 2. Methods

Fourteen psychiatrists (10 women) with different occupational experience [Mean=7.5, Me=3.5, SD=8.76] and age [Mean=30.9, Me=28, SD=8.35] took part in the investigation. At the preparatory stage of the investigation three short narratives of the same author (MacLean, 1984) with different violent scenarios with humans and animals as victims were selected by the consensus of two experimenters as the most emotive in general. The narratives had approximately the same length in audio format (5 minutes) and number of sentences (73, 69 and 74). According to the goal of the study the psychiatrists should estimate each simple sentence and each part of more complex sentences of the narratives during self-reading on several emotive dimensions (depression, aggression, and anxiety) by ranging their intensity (Davydov & Lysenko, 2002). During the assessment psychiatrists were asked to use context. The instruction required to write a sign above the phrases, which would indicate their most probable affective influence on native Russians. Signs symbolized a particular emotion (D, Ag, AS, AP; respectively, depression, aggression, somatic and psychological anxiety) and its intensity (1-3).

### 2.1. Procedures of processing of estimates

Two approaches of content analysis were applied for quantifying the psychiatrists' estimates: (i) calculation of the ratio (in percents) of the presence of a particular emotion in each narrative to the presence of other emotions and (ii) calculation of the ratio (in percents) of the intensity of a particular emotion to the intensity of other emotions. Both measures were adjusted either to a number of complex or to a number of simple sentences. The concordance of experts' estimates was tested by Cronbach's alpha, Intraclass Correlation Coefficient (ICC), and linear discriminant analysis separately for each type of content analysis. In addition multivariate regression model was used to evaluate the contribution of each affective domain to texts differentiation and its sensitivity to gender, occupation, and age difference among experts: 2 groups were categorized according to the gender; 2 groups were categorized according to the median of occupational experience, and 2 groups were categorized according to the median of age. *Bayesian information criterion* (BIC) was used for the selection of the best model.

## 3. Results and Discussion

Psychiatrists demonstrated a high concordance of affective estimations for all narratives. These data presented an evidence that a smaller number of psychiatrists could be sufficiently effective in the estimation of emotive contexts compared to a number of naïve subjects has usually required for similar procedures (Schaefer et al., 2009). Also the results suggested that calculation of the ratio (in percents) of the presence of a particular emotion adjusted to a number of simple sentences in a narrative was the best criteria during a procedure of emotive content analysis for texts discrimination. The results of the study showed that age and period of occupational experience were independently and positively associated with a better differentiation of the narratives by depressive and anxious dimensions. The experts showed a much worse differentiation of the selected narratives by their common aggressive dimension suggesting the similarity of these narratives in evoking this specific emotion. However, women were specifically more sensitive to the aggressive dimension with higher scores for aggressive words. Men were less sensitive to emotive effect of the narratives in general with lower scores for all affective estimates.

## 4. Conclusions and Perspectives

The results suggest that emotive estimates obtained from a small sample of forensic psychiatrists could be sufficient for an emotive content analysis of complex stimuli. The results

also showed that age, gender, and occupational experience of psychiatrists may confound or moderate the evaluation of an emotive aspect of narratives. A future study should show whether age, gender, and occupational experience of forensic psychiatrists should be equally controlled for in an affective standardization of complex stimuli.

A future research should also demonstrate (i) whether emotional (subjective and/or physiological) reactivity of naïve subjects will be able to similarly discriminate the same narratives, but with lower effect size, (ii) whether age and gender of naïve subjects will show the similar confounding or moderation effects on subjective and physiological estimates of emotional reactivity, (iii) whether the discrimination of the narratives by subjective responses of naïve subjects will be closer to responses of less experienced psychiatrists.

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# THE RELATIONSHIP BETWEEN TESTOSTERONE AND PERSONALITY CHARACTERISTICS IN PARENTS OF OFFSPRING WITH AUTISM SPECTRUM DISORDERS\*

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## Abstract

Parents of people with autistic spectrum disorders (ASD) may present a broader autistic phenotype (BAP) characterized by high autistic traits, hyper-systemizing and poor empathy. High prenatal testosterone (T) levels are related to the ASD but the relationship with the current T levels is not totally clear. Nevertheless the relationship between BAP and current T levels in response to stress has not been analysed in parents with autistic offspring. To analyze whether ASD parents would had BAP and its relationship with T response to psychosocial stress. The sample was composed of ASD parents (n=39) and controls (n=41). BAP was evaluated by means of the AQ, SQ-R and EQ. Six samples of saliva were collected before and after stress to determine T levels, which were analysed by ELISA. ASD parents showed high AQ and low EQ score than controls, although SQ-R did not differ between groups. Moreover, the AQ and SQ-R were positively and the EQ was negatively correlated with basal T whereas in controls only the SQ-R was positively correlated with basal T. Furthermore, only in ASD parents high autistic and systemizing traits were related with high baseline T levels and smaller T response to cognitive tasks, mediating basal T the relationship between BAP and T response. The BAP may increase the likelihood to develop autism because ASD parents could provide high prenatal T levels. These findings should be taken into account for understanding the importance of the BAP involvement in the etiology of ASD.

**Keywords:** *Autistic Spectrum Disorders, Empathy, Endophenotype, Parents, Testosterone.*

## 1. Introduction

Parents of people with autistic spectrum disorders (ASD) may present a broader autistic phenotype (BAP) characterized by high autistic traits, hyper-systemizing and poor empathy (Baron-Cohen, 2009; Romero-Martínez et al., 2013). Based on the postulate of 'extreme male brain' theory, highly autistic and systemizing traits and low empathy may be explained by high fetal testosterone (T) exposure (Auyeung et al., 2009). Our previous study has pointed out that the masculinized 2D:4D ratio (a peripheral indicator of fetal T exposure) was a better predictor of cognitive masculinization in ASD parents than in the normative population. Furthermore, the severity of the symptoms of their ASD offspring was predicted only by the masculinized 2D:4D ratio of the ASD fathers. However, there was no association between the 2D:4D ratio and salivary T basal levels in adulthood (Romero-Martínez et al., 2013). Nevertheless the relationship between BAP and current T levels in response to stress has not been analysed in parents with autistic offspring.

## 2. Objectives

To analyze whether ASD parents would show masculinized brains that differentiate them from the normative population. To this purpose we used cognitive questionnaires and the T response to stress. We hypothesized that ASD parents would present we hypothesized that a

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higher BAP or masculinization would be associated with higher T levels (basal and in response to stress).

### 3. Methods

The final sample was composed of 79 participants, including 39 parents of offspring with ASD (15 fathers and 24 mothers) and 40 controls (18 fathers and 22 mothers), who care for healthy offspring. BAP was evaluated by means of the AQ, SQ-R and EQ. The participants were instructed to abstain from eating, drinking stimulants (such as tea, coffee, or alcohol), brushing their teeth, or smoking during the two-hour period before arriving at the laboratory. The experimental procedure was performed between 4:00 pm and 7:00 pm to minimize hormonal circadian variations, and each session lasted approximately two and a half hours. Six samples of saliva were collected before and after stress to determine T levels, which were analysed by ELISA.

### 4. Results

ASD parents showed high AQ and low EQ score than controls, although SQ-R did not differ between groups. Moreover, the AQ and SQ-R were positively and the EQ was negatively correlated with basal T whereas in controls only the SQ-R was positively correlated with basal T. Furthermore, only in ASD parents high autistic and systemizing traits were related with high baseline T levels and smaller T response to cognitive tasks, mediating basal T the relationship between BAP and T response.

### 5. Discussion

This study demonstrates that ASD parents be highly sensitive to the T activation effects that may be involved in the development of BAP as characterized by high autistic and systemizing traits and low empathy. This may mean that first degree relatives of people with ASD could produce high prenatal T levels, which in turn may increase the likelihood of developing autistic disorders. These findings should be taken into account for understanding the role of sex steroids in the etiology of ASD and the functioning of the HPG axis (particularly of T in response to various cognitive tasks developed during life situations). Moreover, the masculinization parameters described throughout the study are subtle and require further analysis.

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VIRTUAL PRESENTATIONS



# MARITAL SATISFACTION AND PERCEIVED SOCIAL SUPPORT AS PREDICTORS OF LIFE SATISFACTION: A STUDY OF POLISH MARRIED ADULTS

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## Abstract

**Objective:** This study investigated the association between marital satisfaction, perceived social support from family, friends and significant others, and life satisfaction in Polish nonclinical married adults. The hypothesis was that marital satisfaction and perceived social support form three distinct domains which may be good predictors of life satisfaction in married adults. **Design:** The study design comprised of correlational study in which participants were asked to fill in the questionnaires. **Methods:** The Polish versions of the Dyadic Adjustment Scale, Satisfaction With Life Scale, and Multidimensional Scale of Perceived Social Support were administered to the sample of 204 married participants (101 males and 103 females) aged 24 – 59. The questionnaires were administered to married volunteer adults by using a snow-ball method of recruitment. The stepwise regression analyses, in which life satisfaction was predicted from marital satisfaction and perceived family, friends and significant others support, were conducted for the total sample. **Findings:** Marital satisfaction was found to be the only significant predictor of life satisfaction ( $\beta = 5.55, p = .000$ ). Marital satisfaction accounted for 41% of the total variance of life satisfaction,  $F(4, 200) = 29.69, p = .000$ . **Conclusions:** Marital satisfaction contributes to life satisfaction; and the greater marital satisfaction the greater life satisfaction. The limitations of the study: (1) correlational design without the insight into casual relationships between the variables, (2) the lack of comparison of the married sample with single sample, (3) the sample consisted of Polish individuals and the results may not be generalizable to other populations.

**Keywords:** *Life satisfaction, Marital satisfaction, Perceived social support, Marriage.*

## 1. Introduction

In the United States, as well as in Poland, although the married lifestyle is not the only life path in a human life cycle, it is still the most common life path (Byrne & Carr, 2005) and expected to be reached at some point in an individual's life (Williams, Guest, & Varangrat, 2006). Therefore, it is an essential task to examine linkages between various aspects of marriage and other outcomes as marital adjustment can profoundly affect quality of life (Carey, Spector, Lantinga, & Krauss, 1993).

Marital satisfaction refers to a global level of favorability that individual spouses report with their marital relationship (Roach, Frazier, & Bowden, 1981). It is also seen as one of the components of the multidimensional concept of marital quality (Amato, Johnson, Booth, & Rogers, 2003). In turn, life satisfaction is "a conscious cognitive judgment of one's life in which criteria for judgment are up to the person" (Pavot & Diner, 1993, p. 164). At the same time, as Miller, Lefcourt, and Ware (1983, p. 266) indicated, "marriage, with its promise of social support, is an institution without which stress effects might become exacerbated (...)". Social support is considered to be an important factor for mental health and well-being, and important coping resource ameliorating the negative effects of stress (e.g., Clara, Cox, Enns, Murray, & Torgrudc, 2003; Zimet, Dahlem, Zimet, & Fraley, 1988). Moreover, as empirical studies revealed, some sources of support may function differently than others, for instance, support provided by a spouse may take precedence over other sources of support (e.g., Aroian, Templin, & Ramaswamy, 2012). In addition, as prior studies revealed, perceived social support from family, friends and significant others is positively related to satisfaction with life (e.g., Duru, 2007).

Giving the importance of marital relationships and perceived social support in an individual's life, it is plausible to assume that marital satisfaction and perceived social support,

in particular from significant other (e.g. spouse) may be associated with life satisfaction in married adults.

## 2. Design and Objectives

This study investigated the association between marital satisfaction, perceived social support from family, friends and significant others, and life satisfaction in Polish nonclinical married adults. The hypothesis was that marital satisfaction and perceived social support from three distinct domains may be good predictors of life satisfaction in married adults. The study design comprised of correlational study in which participants were asked to fill in the questionnaires.

## 3. Methods

### 3.1. Participants and Procedure

The study was carried out in a Polish sample of 204 married adults (101 males and 103 females) aged 24 - 59 ( $M = 40.68$ ,  $SD = 9.55$ ). The mean duration of marriage was 16 years with the standard deviation of 10.35.

Both authors distributed the questionnaires using a snow-ball method of recruitment. The set of questionnaires was distributed among the students by the author. Students in turn passed those questionnaires to their relatives and friends. The participants filled the questionnaires in at home individually. The set of questionnaires was preceded by the information in which the participants were ensured about the anonymity and confidentiality. Taking part in the research was fully voluntary.

### 3.2. Materials

The questionnaire package presented to the participants of the study was comprised of the following instruments: (1) Demographic Questionnaire. This questionnaire was designed to obtain general descriptive information about participants' background such as their age, gender, education, and current relationship status; (2) The Dyadic Adjustment Scale (DAS; Spanier, 1976) in Polish adaptation by Cieślak (1989). In the current study we used the 10-item Satisfaction subscale from the DAS as the measurement of marital satisfaction. It includes items that measure frequency of quarrels, discussions of separation, and positive interactions. Coefficient alpha for the present sample was .80; (3) The Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) (Polish adaptation – Juczyński, 2009). This scale measures an individual's satisfaction with his/her life. The SWLS uses a 7-point Likert scale, ranging from strongly disagree (1) to strongly agree (7), yielding a possible score range from 5 (low life satisfaction) to 35 (high life satisfaction). The Cronbach's alpha in the current study was .84; (4) The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) (Polish adaptation – Adamczyk, 2012). This scale is a 12-item self-report instrument designed to assess a person's perception of the adequacy of social support from three sources: friends, family and significant others. The internal consistencies for the total scale and the subscales are high, ranging between .79 and .98 within various samples. In the present study the Cronbach's alphas were .94 for friends, .90 for family, and .93 for significant others.

### 3.3. Data Analysis

To address the study aims, we performed a stepwise regression analysis, in which life satisfaction was predicted from marital satisfaction and perceived family, friends and significant others support. Data were analyzed using the Statistical Package for the Social Sciences SPSS 21.0. The significance level was set at .05.

## 4. Results

Results indicated that only marital satisfaction ( $\beta = 5.55$ ,  $p \leq .000$ ), uniquely and significantly contributed to the prediction of life satisfaction in married individuals. As



displayed in Table 1 the total model accounted for 41% of the total variance of life satisfaction,  $F(4, 200) = 29.69, p \leq .000$ . The main effect of marital satisfaction indicated that the higher marital satisfaction, the higher reported level of life satisfaction.

## 5. Discussion

The purpose of the present study was to investigate whether marital satisfaction and perceived social support from family, friends, and significant others (i.e. spouse) may be predictors of life satisfaction in Polish married adults. Contrary to our expectations, the only factor that significantly contributed to life satisfaction was marital satisfaction. The higher marital satisfaction, the higher life satisfaction was reported by participants.

This pattern of results may indicate, like the previous study (e.g., Carey et al., 1993), that various aspects of marriage may affect quality of life. In particular, this association between marital and life satisfaction may be relevant in early and middle adulthood since individual's life in this periods of life is predominantly focused on a main attachment figure, which is mainly a romantic partner and spouse (e.g., Doherty, & Feeney, 2004). Therefore, satisfaction with one of the central areas of life (i.e. marriage) may play an essential role in life satisfaction. Moreover, marital satisfaction seems to be even more important than social support from family and friends and husband.

The present study was not without its limitations. One limitation is that the provided analyses leave causal questions unanswered. Although it is theoretically justified to assume that marital satisfaction, to some extent, determine the life satisfaction, the possibility that life satisfaction influences marital satisfaction exists. It seems reasonable to assume that individuals satisfied with life may experience higher marital satisfaction. Second, the sample involved in this research consisted of Polish married adults and the lack of a cross-cultural comparison to determine differences between Polish and other (e.g., US) samples is another limitation. Thus, it is possible that the results of this study may not be generalizable to other populations. In the future, it would be fruitful to carry out cross-cultural studies in this area.

## 6. Conclusions

There is clearly a need for further research in order to understand the role of marital satisfaction and perceived social support in life satisfaction more completely. Despite the correlational nature of this investigation, the study does provide significant results that deepen our understanding of factors associated with life satisfaction. They suggest that for individuals in early and middle adulthood marital satisfaction may be an important factor affecting their life satisfaction.

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## MARITAL SATISFACTION AND PERCEPTION OF PARTNER'S COMMUNICATION STYLE IN POLISH MARRIED ADULTS

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### Abstract

**Objective:** The aim of the study was to investigate the association between marital satisfaction and perception of partner's communication style. The hypothesis was that perception of partner's communication behaviors as supportive, engaged, and depreciated is related to marital satisfaction. **Design:** The study design comprised of correlational study in which participants were asked to fill in the questionnaires. **Methods:** The Marital Communication Questionnaire and the Dyadic Adjustment Scale were administered to the sample of 207 married adults (102 males and 105 females) aged 24- 59. The questionnaire packages were distributed using a snow-ball method of recruitment. A one-way ANOVA test was used to carry out the analyses. **Findings:** The results indicated a significant effect of perception of partner's communication style as supportive,  $F(2, 204) = 39.64$ ,  $p < .000$ , engaged,  $F(2, 204) = 23.83$ ,  $p < .000$ , and depreciated,  $F(2, 204) = 31.30$ ,  $p < .000$ . *Post hoc* comparisons by Bonferroni test showed significant differences between the groups of high, average and low perception of partner's communication style as supportive ( $p < .05$ ), engaged ( $p < .05$ ), and depreciated ( $p < .000$ ). **Conclusion:** The higher level of marital satisfaction was found in the married adults who perceived their partner's communication style as highly supportive and engaged, but the least depreciated. The limitations of the study: (1) correlational design without the insight into casual relationships between the variables, (2) the sample consisted only of Polish individuals and the results may not be generalizable to other populations.

**Keywords:** *Communication style, Communication behaviors, Marital satisfaction.*

### 1. Introduction

In the process of development and socialization every individual develops his or her specific communication style with other people. It is so called conversational style (Tannen, 1986) or communication style (e.g., Jourdain, 2004). The conversational style defines the way of coding and interpreting information received from others and the way of forming messages that are displayed in multiple ways of passing the information through words and on meta-level (Plopa, 2006). Some authors claim that conversational styles is a set of communication behaviors characteristic of a given person (Baird & Bradley, 1979).

One of the important aspects of human relationships, including marital relationships, is communication. In marriage, it serves not only as a way to exchange information between partners, but also significantly influences intimacy experienced by them. Thus, the quality of communication may enhance or inhibit intimacy (Plopa, 2006), and, as a result, marital satisfaction (Ryś, 1996; Litzinger & Gordon, 2005). For instance, Montgomery (1981) indicates that openness and confirmation are positively related to levels of marital satisfaction. Negative communication (e.g. criticize partner) between partners is prediction of divorce (Markman, Rhoades, Stanley, Ragan, & Witton, 2010). Such behaviors as giving support, showing engagement and partner's depreciation belong to essential areas of marital communication (Plopa, 2006). Therefore, it is plausible to assume that level of marital satisfaction reported by spouses may be associated with a partner's communication style. In other words, the perception of partner's communication behaviors as supportive, engaged or depreciated may influence marital satisfaction.

### 2. Design and Objectives

The aim of the study was to investigate the association between marital satisfaction and perception of partner's communication style. The hypothesis was that perception of partner's communication behaviors as supportive, engaged, and depreciated is related to marital

satisfaction. The study design comprised of correlational study in which participants were asked to fill in the questionnaires.

### 3. Methods

#### 3.1. Participants and Procedure

The study was carried out in a Polish sample of 207 married adults (102 males and 105 females) aged 24 – 59 ( $M = 40.34$ ,  $SD = 9.43$ ). The mean duration of marriage was 15.28 years with the standard deviation of 10.31.

Both authors distributed the questionnaires using a snow-ball method of recruitment. The set of questionnaires was distributed among the students by the authors. Students in turn passed those questionnaires to their relatives and friends. The participants filled the questionnaires in at home individually. The set of questionnaires was preceded by the information in which the participants were ensured about the anonymity and confidentiality. Taking part in the research was fully voluntary.

#### 3.2. Materials

The questionnaire package presented to the study participants was comprised of the following instruments: (1) Demographic Questionnaire. This questionnaire was designed to obtain general descriptive information about participants' background such as their age, gender, education, and current relationship status; (2) The Dyadic Adjustment Scale (DAS; Spanier, 1976, 1989) in Polish adaptation by Cieślak (1989). In the current study we used the 10-item Satisfaction subscale from the DAS as the measure of marital satisfaction. It includes items that measure frequency of quarrels, discussions of separation, and positive interactions. The Satisfaction subscale has well-established psychometric properties (Spanier, 1989). Coefficient alpha for the present sample was .83; (3) the Polish Marital Communication Questionnaire (MCQ) that was designed by Plopa (2006). This questionnaire was designed to measure individual's own and partner's communication style. It consists of 30 items accompanied by a 5-point scale ranging from never (1) to always (5).

The questionnaire includes three subscales: Support, Engagement, and Depreciation. The Support subscale includes communication behaviors associated with showing respect to a partner, interest in his/her problems and needs, as well as joint problem solving, for instance "My partner shows care of me" or "My partner is interested in my needs". Engagement subscale includes competences to create an atmosphere of mutual understanding and closeness in a relationship, and it includes communication behaviors such as showing feelings, emphasizing partner's uniqueness and significance, and prevention of conflicts in a relationship, for instance "My partner shows me his or her affection for me" or "My partner compliments me". Depreciation subscale includes behaviors related to such areas as showing aggression towards a partner, disrespect for a partner's dignity, the willing to predominate over a partner and controlling him or her, for instance "My partner criticizes me" or "My partner imposes his opinion on me". The MCQ's three subscales have high internal reliability, with Cronbach's alphas ranging from .87 to .93, and proved to be a valid measure of perception of communication style for Polish population (Plopa, 2006). The Cronbach's alphas in the present study were .93 for the Support, .87 Engagement, and .89 Depreciation scales.

#### 3.3. Data Analysis

To address the aims of the study, we used a one-way ANOVA test to examine differences among married adults of high, moderate and low marital satisfaction with reference to differential levels of support, engagement and depreciation communication style. Data were analyzed using the Statistical Package for the Social Sciences SPSS 21.0. The significance level was set at .05.

### 4. Results

We examined differences in married participants' reported levels of marital satisfaction with reference to low, moderate and high level of perceived partner's communication behaviors

(i.e., support, engagement, and depreciation). The results indicated a significant effect of perception of partner's communication style as supportive,  $F(2, 204) = 39.64, p < .000$ , engaged,  $F(2, 204) = 23.83, p < .000$ , and depreciated,  $F(2, 204) = 31.30, p < .000$ .

*Post hoc* comparisons by Bonferroni test showed that the highest level of marital satisfaction was reported by married adults who perceived their partners' communication as highly supportive and engaged, and as low depreciated. The lowest level of marital satisfaction was reported by those participants who perceived their partners' communication style as low supportive and engaged, and highly depreciated.

## 5. Discussion

The purpose of the present study was to investigate the association between marital satisfaction and perception of partner's communication style. As expected, high level of marital satisfaction was connected with high perception of partner's communication style as supportive and engaged, and as low depreciated. This pattern of results is consistent with prior studies (e.g., Ryś, 1996; Litzinger & Gordon, 2005; Montgomery, 1981; Markman et al., 2010) and confirmed the role of positive communication behaviors in marital relationships. The supportive and engaged communication behaviors, for example pro-social behaviors such as assuring the partner of one's involvement in the relationship and demonstrating romantic feelings (Guerrero & Bachman, 2006) contribute to maintaining relationships and increase of the sense of certainty and security in a relationship.

The present study was not without its limitations. One limitation is that the provided analyses leave causal questions unanswered. Although it is theoretically justified to assume that communication style, to some extent, determine the marital satisfaction, there is possibility that marital satisfaction influences perception of partner's communication behaviors. It seems reasonable to assume the satisfied married individuals perceive their partners' behaviors as more favorable than do the less satisfied individuals. Second, the sample participating/involved in this research consisted of Polish married adults and the lack of a cross-cultural comparison to determine differences between Polish and other (e.g., US) samples is another limitation. Thus, it is possible that the results of this study may not be generalizable to other populations. However, as studies showed negative and positive communication behaviors are related to marital satisfaction within different cultural groups (Rehman & Holtzworth-Munroe, 2007). In the future, it would be fruitful to perform cross-cultural studies on communication style and marital satisfaction.

## 6. Conclusions

There is clearly a need for further research to understand the role of communication behaviors in marital relationships and marital satisfaction more deeply. Despite the correlational nature of this investigation, the study does provide significant results that deepen our understanding of factors associated with marital satisfaction. In terms of practical value, they suggest the possibility to enhance communication behaviors of marital partners to be more supportive and engaged, and less depreciated, taking into account that they appear to be related to marital satisfaction.

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**WORKSHOPS**





## SOMATIC MARKERS IN CLINICAL PRACTICE

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### **Abstract**

Somatic markers, named and identified by neuroscientist Antonio Damasio, provide immediate and accurate information regarding your inner world, your perceptions of the outer world, and your emotional state. Your body takes in an enormous amount of information through your five senses, far more than can be perceived by your conscious mind. Some of this unconscious information registers as observable responses in your body (somatic markers). This workshop will help you become more mindful of your own bodily responses, and gain access more quickly to this deep information regarding the therapeutic process. When you are aware of somatic markers, you have a reliable reference point during treatment to identify counter-transference, emotional triggers, and recognize somatic shifts in your patients. Through lecture, discussion, movement, and experiential exercises, you will explore and deepen your somatic awareness and learn how to apply this awareness in clinical practice. You will learn about the crucial relationship between somatic markers and emotional triggers, and explore the art of being fully present in your body as you witness and work with your patients. You will leave with specific tools and handouts to continue to work with your somatic awareness, and to introduce these ideas in your practice. Psychologists and psychotherapists from all theoretical backgrounds will benefit.

**Keywords:** *Somatic awareness, Clinical practice, Emotional triggers, Experiential, Mindfulness.*

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### **1. Introduction**

Neuroscientist Antonio Damasio describes spontaneous, unconscious physical sensations or changes that occur in response to the environment, as somatic markers. They arise as visceral sensations, increased heart rate, sweaty palms, flushing, temperature changes, gut level feelings and others (Damasio, 1994). When a somatic marker is experienced there is often a secondary response to the somatic marker itself, that is, an observable response in the body, such as a change in respiration, muscle tension, body position, and others. Somatic markers present a uniquely useful tool to a clinical practice, and their effectiveness is directly tied to somatic awareness. Somatic awareness aids the therapist in reading unconsciously generated somatic signals in both the therapist's body (somatic markers) and in the patient's body (observable responses to his somatic markers). A therapist, who has developed her somatic awareness has tools to teach patients to learn to recognize their own somatic markers as a means of better meeting their needs, to have more and better choices regarding habitual behaviors, and to intentionally affect their emotional state by changing their posture (Carney, Cuddy, and Yap, 2010).

### **2. What is somatic awareness?**

Somatic awareness is proprioceptive and refers to the felt experience of the body. For the purposes of this paper, it is specifically related to muscle tension and relaxation, body posture, and emotional feelings. Heightened somatic awareness provides a vehicle for understanding what is being felt. A simple process that entails noticing the sensation of muscle tension, allowing the tension to be as it is, rather than resisting it, and maintaining awareness of the tension, can facilitate the muscle to relax, opening the "gateway to the emotions" (Mayland, 1982).

### 3. Somatic awareness and the unconscious

A human being unconsciously perceives 11 million bits of information every second and at most 40 of those bits can be perceived and made use of consciously (Norretranders, 1998). Clearly it is inefficient to pay attention to millions of little details that are a part of our everyday environment, and some of this information is filtered out through selective attention (Wilson, 2002). Perhaps this is a part of Damasio's thinking when he wrote that the somatic marker "allows you *to choose from among fewer alternatives*," (Damasio, 1994). However, it does not account for the vast discrepancy between the 11 million bits perceived unconsciously and the paltry 40 bits perceived by the conscious mind. Deep, emotional, intuitive feelings register in the body as gut-level feelings. These feelings are cognitive processes that operate faster than we realize and are very different from the step-by-step thinking upon which we rely (De Becker, 1997). Fairly recently, the biochemicals of emotion have been isolated and the locations of their receptors has been mapped by biochemists including Candace Pert, Michael Ruff and Ed Blalock (Gerhardt, 2004). Their research has confirmed that "feelings come first," and that reason and rational thought are initiated by emotion and, in fact, depend on it (Gerhardt, 2004). Understanding that reason *follows* emotion, and that the body responds to input with visceral, emotional signals, underscores the importance of increasing somatic awareness. Our bodies, our felt experiences, hold vital information that is not accessible to our thinking, rational minds. Once the information is accessed, it can be understood rationally, but rational thought alone will not take you there. The information is stored unconsciously in the body.

### 4. How is somatic awareness relevant to clinical practice?

Somatic markers serve to bring unconscious processes to consciousness, providing the possibility of successfully navigating current conflicts and also of addressing early unresolved conflicts. Awareness of somatic markers enables the therapist to gain insight into herself as well as the patient. For example, the therapist may recognize physical signals in her body as early indicators of emotional triggers and counter-transference. A tangible early indicator provides the therapist with an opportunity to notice sooner what initiated the counter-transference. This can facilitate the therapy and help the therapist to manage counter-transference more quickly. Therapists who learn this technique can then guide their patients in understanding signals in their own bodies. For example, a patient with borderline tendencies may learn to identify physical sensations that occur just before flying into a rage, and over time may learn to recognize the somatic marker that precedes the rage in time to remember that he has choices, and always feels worse after raging. This approach can be used successfully with patients suffering other types of disorders or tendencies including addictions, and with great care, can be incorporated successfully in treatment with patients who have dissociative disorders. Further, the therapist can help the patient to work with posture to intentionally affect his emotional state (Carney, et al., 2010).

More intimate than body language, the somatic marker makes apparent deeper, less conscious shifts as they occur in the patient through observable changes in the body. Tears are a familiar observable response to a somatic marker that informs the therapist the client may be experiencing distress. A softening of the breath may indicate a sense of understanding in the patient. A movement of retreat in the chest may indicate a feeling of resignation. Somatic markers call attention to a negative outcome, or become a beacon of incentive if the somatic marker is positive (Damasio, 1994). The therapist can't know for certain what a particular somatic marker means for a patient, but can learn to recognize the difference between responses to negative markers and positive ones. The somatic marker provides an index of change and is a starting point to explore the patient's awareness.

## 5. Clinical Applications

Before working with somatic markers in a patient, a therapist must develop a kinesthetic, or “felt” awareness of her own body. Only then can the physical signals evident in the patient, such as muscle tension or relaxation, a quick intake of breath, or a change in his posture, have meaning for her. She understands that physical signals observed in the patient are the patient’s responses to somatic markers. Signals such as these provide the therapist with valuable information that the patient may be entirely unaware of. A therapist familiar with her own somatic markers will notice the patient slightly lift his shoulders, and consider what this tension could mean. Perhaps she knows her shoulders raise a little when she feels dismissed, and can consider this while observing the patient. This is merely a starting point to explore what the patient could be experiencing. The tension involved in elevating the shoulders, for example, often is related to a feeling of vulnerability, a need for self-protection. In an emotionally tense situation, muscles correspondingly tighten. A person with a well-developed somatic sense will notice the muscles tighten, pay close attention to what it might mean and make greater use of the information in the body’s response. This is illustrated in the following two stories:

- A counselor greeted a new client at the door, expecting to escort the client directly up the stairs to her home office. When the client boldly walked past the counselor into the main part of the home, picked up items in the counselor’s living room, commented on them and asked where they came from, the counselor froze. Later she reported that her chest and throat had tightened and she remembered feeling critical of herself for her response. Her self-talk included internal statements such as, “What is wrong with me that I am feeling this way? There is nothing wrong with what she’s doing. I hope she can’t tell that I don’t know how to handle this!” The counselor desperately grasped at what she thought her reaction to this situation should have been. Later, she said, “I didn’t know what to do!”

If this counselor had taken a moment to notice the tension in her throat and chest, instead of judging it as the wrong response, she could have trusted the response and wondered what it was telling her. This would have helped her to consider, “My throat and chest just tightened up. Something is going on with me. I wonder what it is?” She might then have been able to recognize that she felt intruded upon. This could have made it possible for the counselor to say, “My office is upstairs. Let’s go.”

- During a therapy session a patient made a statement clearly seeking the therapist’s approval. The therapist remained silent and noticed the patient’s torso slightly collapse. She asked the patient what he felt in his body at that moment and he said that he felt awful, and spread his fingers across his breastbone. “Right here,” he said. Under the therapist’s guidance, and staying with the feeling in his body, he realized that every time he sought approval, he felt this same sensation. Eventually he was able to identify it as betrayal – his betrayal of himself, as he looked to others for his sense of adequacy.

The patient later noticed another somatic marker that he described as an ‘edge,’ that occurred immediately prior to saying something with the hope of gaining approval. He recognized it as an early warning that he was about to betray himself. The ‘edge’ served as a guide for him to make a better choice, and perhaps withhold the approval-seeking statement.

## 6. Conclusion

The drive to feel good about ourselves and about the choices we make is hardwired into our central nervous systems (Keltner, 2009). Attention to somatic markers in clinical practice is an effective way for the therapist to gain self-awareness, particularly in identifying counter-transference, and for gaining insight into the patient’s unconscious signals. It offers the therapist and patient a tangible guide that is with them wherever they go and helps them relate to

themselves and others with greater ease. Somatic awareness helps the patient to live his treatment.

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# THE COGNITIVE ORIENTATION APPROACH TO PSYCHOPATHOLOGY

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## Abstract

Cognitive orientation is a theoretical approach focused on identifying psychological correlates of specific behaviors, including personality disorders and psychopathologies. It is a model developed in the framework of a comprehensive theory of motivation. Cognitive orientation is based on the assumption that cognitive contents and processes play a role as background variables or risk factors in regard to pathology and as factors predisposing to health-related behaviors. Cognitive orientation has originated a research methodology and a set of intervention procedures focused on identifying and changing the psychological correlates relevant for states of psychopathology. It is supported by a rich and variegated set of empirical studies referring to disorders such as paranoia, depression and eating disorders. The cognitive orientation approach provides a new venue for understanding the psychological aspects underlying disease formation and a set of tools useful for the practitioner as well as the researcher in clinical psychology. Examples from research and clinical practice focused on anxiety disorders, depression, eating disorders, and schizophrenia are discussed.

**Keywords:** *Cognitive orientation, Psychopathology, Eating disorders, Anxiety, Depression.*

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## 1. Introduction

Cognitive orientation (CO) is a comprehensive theory of motivation that provides concepts and methodologies for understanding, predicting and changing behaviors in a variety of domains, ranging from observable actions to emotions, cognitive operations and physiological reactions. It is supported by a rich and variegated set of empirical studies referring to predictions and changes of behaviors. In addition to describing major processes intervening between input and output, it has originated a research methodology and a set of intervention procedures focused on identifying and changing the psychological correlates relevant for states of disease and health (Kreitler, 2004). In the present context the application of the theory to personality disorders and psychopathology is described.

CO is based on the assumption that cognitive contents and processes play a role as background variables or risk factors in regard to pathology and as factors predisposing to health-related behaviors. The cognitive contents and processes that may be expected to contribute to the formation of psychopathologies are characterized in terms of formal and contents characteristics. In formal terms these contents represent four types of beliefs: (a) Beliefs about self, which refer to information about oneself, such as one's traits, habits, demographic background, and opinions or attitudes, e.g., I am a responsible person; (b) Beliefs about norms and standards, which refer to rules and standards in varied domains, such as moral behavior, aesthetics, or operating instruments, e.g., One should be a responsible person; (c) Beliefs about goals and wishes, which refer to desired behaviors or states in varied domains, such as emotions, cognitive or interpersonal, e.g., I would like to be a responsible person; and (d) General beliefs, which refer to information about others or reality in varied domains, such as facts, attitudes and descriptions of various situations, e.g., Responsibility is a highly valued trait.

The four types of beliefs that contribute to the formation of behaviors do not refer directly to the behaviors in question but to contents that represent deeper underlying meanings of the behavior in question. These meanings, which are called themes, are identified by means of a procedure generated by the CO theory, which consists in a stepwise exploration of meanings related to the behavior of interest. The motivational disposition for any behavior is a kind of vector that is based on the four types of beliefs referring to the themes.

According to the CO theory the occurrence of a behavior depends on two major constructs. The first is the motivational disposition, which represents the directionality of behavior; the second is the behavioral program, which consists of an organized set of habits and reactions, embedded in some scheme or plan. The behavioral program implements the motivational disposition.

Notably, all the involved processes are neither necessarily conscious nor dependent on rational considerations.

## 2. Methods

The motivational disposition is assessed in terms of a questionnaire which includes beliefs of the four types referring to the relevant themes for the behavior in question. In this CO questionnaire the respondent is required merely to check the degree to which he or she agrees to the different statements. A response of complete agreement is scored as 4, and a response of complete disagreement as 1. The summative scores represent the scores assigned to the statements in each of the four types of beliefs, as well as in each of the themes.

### *Psychopathology*

In regard to psychopathologies, the major tenet of the CO theory is that there may be some known or unknown trigger which functions as a pathogen. It may be for example a gene, a virus, a trauma, a severe emotional shock, an intoxication, or an intense experience that the individual may find difficult to elaborate or overcome. However, the trigger does not cause the pathological behavior to occur if there is no motivational disposition for that behavior. It is likely that in the absence of the triggering pathogen, the mere existence of the motivational disposition as such also does not bring about the pathological behavior. Further, the existence of a behavioral program for the pathological behavior also does not cause the pathological behavior. All three factors – the triggering pathogen, the motivational disposition and the behavioral program – are necessary if the pathological behavior is to occur.

### *Studies in psychopathology*

Pathological behaviors that have been studied in the framework of the CO theory include paranoia (Kreitler & Kreitler, 1997), anxiety disorders (Kreitler, 2003), schizophrenia, depression and eating disorders (Kreitler, 2011). In each case research focused primarily on the motivational disposition. The construction of the motivational disposition required identification of the relevant themes. For example, themes that were found to be relevant for paranoia were that the world is a dangerous place and that careful observation of reality and other people may enhance one's chances of guarding oneself; themes relevant for eating disorders were the striving for perfection, the need for pleasing others, and the danger of exposing to others one's weaknesses and emotions.

Questionnaires based on beliefs referring to the relevant themes enabled highly significant predictions of the different pathological behaviors and the implementation of adequate intervention procedures.

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