The common emphasis of the research in which the psychological variables are analysed is the fact that the technological developments and the changes resulting from these developments both increase the quality of life and require the adaptability process. As Freud (1999) indicates, this dialectical process is one of the indicators of uneasy civilizations. It can be said that the people who can adjust and whose processes of intellectual adjustment are fast are healthier.

The cognitive flexibility which is defined as adjusting to specific situations, the ability to pass from one idea to another idea or the capacity to consider various problems in terms of multi-dimensions (Stevens, 2009) means the fact that the individual is aware of his options, he can adjust to new situations and he feels competent for the new situations (Bilgin, 2009b; Martin, Anderson, & Thweatt, 1998; Martin & Rubin, 1995). The people whose cognitive flexibility is at satisfactory level can deal with new and difficult situations; they can produce alternative opinion and ideas (Altunkol, 2011; Stahl & Pry, 2005). The cognitive flexibility, which has positive effects on the potential for coping with internal and external stressors and positive effect on the adults’ welfare in the family interaction environment (Koesten, Schrodt, & Ford, 2009) has a key role on the individuals’ forming competency belief related to their developing healthy life style (Martin et al., 1998). The children who are not flexible enough repeat the same mistakes by behaving rigidly and have difficulties in adjusting to new situations (Anderson, 2002).

The Contributions of Attachment Styles, Irrational Beliefs and Psychological Symptoms to the Prediction of Cognitive Flexibility

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Abstract
In this research, the contributions of styles of attachment, irrational beliefs and psychological symptoms to the prediction of cognitive flexibility were analysed. The sample consists of 436 students studying in various departments and faculties in Mersin University. The Cognitive Flexibility Scale, Relationships Scale, Irrational Beliefs Scale and Short Symptom Inventory were applied. Multiple-regression analysis and stepwise regression analysis were used to analyse the data. According to the results of the research, it was found out that all of the independent variables explained approximately 41% per cent of the cognitive flexibility; according to the stepwise regression analysis, it was found out that the students’ cognitive flexibility was predicted most by the variables of irrational beliefs, obsessive attachment and anxiety.

Key Words
Cognitive Flexibility, Styles of Attachment, Irrational Beliefs, Psychological Symptoms.
The cognitive flexibility, which hinders children's automatic responses and which is seen as the capacity to manage the current situation independently (Ciairano, Bonino, & Miceli, 2006) is seen as the subdimension of a wider structure which is neuropsychologically called as executive function. Other subcategories of executive functions are intuition, choosing an aim, planning, restricting, self-organization, working memory, focusing, attention and feedback (Anderson; 2002; Blair, Zelazo, & Greenberg, 2005; Hughes, 2002; Rennie, Bull, & Diamond, 2004; Stevens, 2009). The executive functions start to develop from the first age. These developments continue developing during childhood and adolescence and they reduce in adulthood (Anderson; 2002; Stahl & Pry, 2005). The children and the old people have lower performance compared to young adults (Zelazo, Craik, & Booth, 2004). In this context, it can be said that the communication manners which the individuals form at the beginning of their lives influence executive functions, cognitive flexibility and psychological symptoms. The attachment types which start to develop at infancy and whose bases depend on the mental structures related to themselves and others influence psychological health. According to Spann et al. (2012), the individuals whose executive functions are exposed to physical exploitation and negligence are influenced negatively and their cognitive flexibility declines. However, the individuals' healthy attachment have a positive relationship with their welfare (Kart, 2002; Terzi & Cihangir Çankaya, 2009; Towler & Stuhlmacher, 2013).

According to Bowlby, the human beings come to the world with an instinctive and behavioural inclination which start with the birth and help them form a bond with the people who will provide them with their vital needs from birth to death (Bretherton, 1992; Johnson, Dweck, & Chen, 2007). According to Attachment Theory, the babies whose needs are provided in a satisfactory and balanced way start to form first relationship figures and develop structures related to themselves and others. Accordingly, it is stated that the first relationships which are formed with the caring person form the mental representations related to the ego and others and these mental representations guide the close relationships which will be formed later (Ditommaso, Brannen-McNulty, Ross, & Burges, 2003). The structures called internal working models develop with the processes that Piaget names Cognitive Development. The people act according to the models depending on old memories and experiences while forming new relationships. While the internal working models related to others include features such as whether the person caring for the baby are caring, supportive and reliable, the internal models related to ego consists of the beliefs and expectations about whether he is worthy of care, attention and affection (Fraley, 2002).

The internal working models about ego and others are shaped by the experiences which are repeated in secure and insecure attachment environment (Bretherton, 1992). Thus, the people make different types of attachment which are reflected from different inter-personal relationships (Pietromonaco & Barrett, 2000). Bartholomew and Horowitz (1991) base internal working models on the four-attachment models, which are secure, obsessed, afraid and negligent.

The researches indicate that attachment styles are related to cognitive functions and psychological symptoms. According to Lippe, von der Elertsen, Hartmann, and Kille (2010), the secure attachment relationships peculiar to mother influence the children's development of secure attachment styles and mental executive functions positively. Focusing on the relationship between cognitive flexibility and belief of competency, Cabeldue and Boswell (2012), indicate that there is a negative relationship between shy and anxious attachment and beliefs of competency.

The representations or internal working models, which the child form towards himself and others can be related to cognitive schemes organizing our behaviour and experiences. Rothbard and Shaver (1994 as cited in Çeri, 2009) suggest that there are four elements of working models which are connected with each other. These are (a) autobiographic memory (b) beliefs and attitude (c) aims and motives (d) behaviour strategies. According to Cognitive Theory, these elements also comprise the concept of cognitive scheme. The deviance or irrationality of the beliefs and attitudes deviated from these schemes are important concepts which influences the individual's welfare and adjustment to others. It can be predicted that attachment types, flexibility and irrational beliefs influence the behaviours interacting with others when they are considered within the framework of the schemes and metal structures. The secure attachment and functional beliefs (Doron, Moulding, Kyrios, Nedeljkovic, & Mikulincer, 2009; Stackert & Bursik, 2003); the negative correlation findings between non-functional beliefs and general, social and emotional adjustment support this prediction (Hamamci & Esen-Çoban, 2010; Hamidi & Hosseini, 2010).
The basic approach of The Rational Emotive Behavior Terapy, which Ellis pioneers is that the people come to the earth with rational and irrational tendencies and these beliefs are in the centre of our emotional reactions. The tendencies which start to exist from the birth are strengthened by the relationships with family, friends, school and other social relationships (Abrams & Ellis, 1994; Corey, 2001; Ellis, 1973; Nelson-Jones, 1982; Sharf, 1999). The excess of irrational beliefs makes the people's lives difficult; it enables different psychological symptoms to come out (Bilge & Arslan, 2000; Gündüz, 2006; Kılıçarslan, 2009; Lorcher, 2003; Robert & Harnish, 2010; Sava, Maricuțoiu, Rusu, Macsinga, & Virgă, 2011). According to Burns and Fedewa (2005), the negative perfectionism related to irrational beliefs weakens the structure of thinking and it causes incongruous behaviours in stress reactions. Similarly, according to Shafran and Mansell (2001), there is a correlation between perfectionism and psychopathology.

As the cognitive flexibility is a new term which is studied in the frame of psychological adjustment, there is only few research on this concept, especially in Turkey. Altunkol (2011) states that there is a negative correlation between stress level perceived and cognitive flexibility. Similarly, Diril (2011) finds out that there is a negative correlation between the continuous anger and cognitive flexibility and a positive correlation between control of anger and cognitive flexibility. According to the research made by Bilgin (2009b), it is determined that the variables predicting cognitive flexibility meaningfully are expectations of social competency, the attitude of authoritative father-mother and the skills of problem solving. According to Bilgin, the fact that the styles of mother-father attachment are studied separately and that the relationship between cognitive flexibility and behavioural disorder are analysed will have an important contribution to the explanation of the structure. Moreover, it is expected that the determination of variables predicting cognitive flexibility, especially in the context of school based psychological counselling services, will support the professionals' applications serving student and parents.

Does the styles of attachment, irrational beliefs and psychological symptoms predict the cognitive flexibility meaningfully and what are their contributions to the prediction?

Method

This study, which analyses the contribution of irrational beliefs, styles of attachment, and psychological symptoms to predicting cognitive flexibility is a descriptive study in a relational scanning model. The sample of the study was chosen by simple random sampling. The sample consisted of 247 female students and 189 male students studying in Mersin University. The total number of students in the sample were 436 voluntary students. The students' ages were between 18 and 34.

Data Gathering Instruments

The Cognitive Flexibility Scale: The Cognitive Flexibility Scale, which consists of 19 items (CFS) is developed by Bilgin (2009a). CFS is composed of adjective pairs. (For example, "I do, I can't do", "I am successful, I am unsuccessful") etc. The points gained from the scale change between 19 and 95. The increase of the points in the scale means that the individual comes closer to the individual's cognitive flexibility. 19 items in CFS explain 51% of the variance. Another reliability analysis study of the scale is carried out and in this study criteria validity is determined by Non-Functional Attitude Scale and the correlation between two scales are determined to be .44. In the reliability analysis studies of the scale, it is found out that Cronbach's Alpha of the whole scale is .92, item total correlation of the items are between .49 and .63.

Irrational Beliefs Scale-Short Form (IBS-S): IBS-S, which is developed by Türküm (2003) and which is composed of 15 items, measures tendencies of irrational beliefs. IBS-S, is the short form of Cognitive Distortion Scale which includes 29 items (Türküm, 1999). IBS-S is a Likert Type Scale whose intervals range from "definitely inappropriate (1)" to "definitely appropriate (5)". The lowest score that can be gained from the scale is 15, the highest score of the scale is 75. The high score gained from the scale means that irrational belief level is high. Item total correlation of the scale is between .50 and .52. The internal consistency of the scale is .75. The reliability score gained by means of reapplication of the test is .81.

Brief Symptom Inventory-BSI: BSI, which has 53 items and which is a Likert Type self-evaluation scale is used to scan psychological symptoms. SSI is shortened by Deragotis (1992 as cited in Savaşır & Şahin, 1997) and its adaptation to Turkish, its reliability and validity analysis are carried out by Şahin and Durak (1994). It is found out that the scale...
of anxiety is added and total variance increases to 38%; in the seventh step, subscale of depression is added and total variance increases to 39% and in the last step, subscale of negative ego is added and total variance increases to 40%. According to multiple and stepwise regression analyses, it is found out that 30% per cent of cognitive flexibility are explained by the variables of irrational beliefs, obsessed attachment and anxiety. When the results are analysed in terms of the course (direction) of the relationship between the variables and flexibility, it can be said that the excesses of these three variables cause the cognitive flexibility to decline.

Discussion

In this study, in which styles of cognitive flexibility, irrational beliefs and psychological symptoms are analysed, it is found out that each of the three structures has important predictive effect on flexibility. According to the findings, all of the independent variables explain approximately 41% of the cognitive flexibility. According to the result of stepwise regression analysis, the most important predictive contribution results from the variables of irrational beliefs. When the variables except the variable of irrational beliefs are categorized according to their contribution to the prediction (from the highest to lowest), they can be put into order in this way respectively: obsessed attachment, anxiety, somatization, negligent attachment, secure attachment, depression and negative ego. When the total explanation percentage of cognitive flexibility are considered from a different viewpoint, it is found out that irrational beliefs and styles of attachment explain more than half of the variance.

When it is considered that cognitive flexibility is the capacity to consider (envisage) the problems with multidimensional strategies (Stevens, 2009), this study’s result about the fact that irrational beliefs predict cognitive flexibility has a parallelism with Bilge and Arslan’s (2000) finding that there is a negative relationship between irrational beliefs and problem solving skills. According to Ellis, our beliefs, evaluations and comments about the events influence our reactions (Capuzzi & Gross, 2003). The excesses of irrational beliefs influence the individual’s relationships; the individual becomes more depressed, aggressive, anxious, bored and has similar problems (Burger, 2006; Kulçarslan, 2009; Lorcher, 2003). According to the findings, another important variable which explains cognitive flexibility is attachment styles. Like irrational beliefs, attachment
styles influence the individual's processes of problem solving and adjustment related to himself and others; and they also have relationship with different variables such as depression (Kamkar, Doyle, & Markiewicz, 2012; Liu, Nagata, Shono, & Kitamura, 2009), anger (İmamoğlu, 2003), stress (Kart, 2002), welfare (Landen & Wang, 2010).

It can be said that the results related with the fact that irrational beliefs and attachment styles predict the cognitive flexibility are convenient and meaningfully related to the theoretical bases indicated at the introduction part of this article. As Bilgin (2009b) states, cognitive flexibility is a concept used for interpersonal relationships. The mental processes which the human beings use in interpersonal relationships are shaped with birth and they are developed with experiences. According to the cognitive approach which Ellis pioneers, the tendencies of the man who comes to the world with rational and irrational inclinations are reinforced with family, school, peers and other social relations (Nelson-Jones, 1982; Sharf, 1999).

According to findings of the research, while the fact that there is a negative relationship between cognitive flexibility and obsessed attachment and positive relationship between cognitive flexibility and secure attachment is evaluated as a normal result, the fact that there is a positive relationship between negligent attachment and flexibility is thought provoking. This finding isn’t compatible with İmamoğlu’s (2003) linear relationship findings between negligent attachment and anger and with Keskingöz’s (2002) finding that the people who have negligent attachment have more non-functional eating patterns. However, in the literature, there are studies which have parallelism with this study related to negligent attachment. For example Kart (2002) in his study indicates that the people who have secure and negligent attachments have lower stress than people who have obsessed attachment. According to Attachment Theory, in negligent attachment, which is related to the fact that the individual evaluates himself positively while evaluating others negatively, the individual attach importance to his autonomy as he expects that other will give harm to him. Based on the research finding, this state of being autonomous including positive perception of ego have an effect on the capacity of solving the problems alone. In other words, the preference of being autonomous in terms of coping with different situations can enable a person to increase the capacity to deal with the similar situations more flexible and differently.

According to the results of the regression analysis, another structure which predicts cognitive flexibility is psychological symptoms. In Bilgin’s study (2009b), social competency and problem solving skills are seen to be important variables which predict cognitive flexibility. According to Martin, Staggers, and Anderson (2011), the people who are more flexible have higher points and they are better in terms of tolerating conflict, boldness, interpersonal communication competence and belief of sensitivity and communication competence and their oral and indirect aggressiveness are lower. According to Stevens (2009), the higher degree of flexibility causes less problematic behaviours to be displayed.

The findings indicate that irrational beliefs, attachment styles and psychological symptoms have an effect on cognitive flexibility. According to Cognitive Theory, the individuals come to the world with an inclination of rationality and irrationality (Ellis, 1973) and their relationship with the person who cares for them while they are babies influence their subsequent behaviours and relationships to a great extent. It can be said that having irrational beliefs less, communicating with secure attachment styles and having less psychological symptoms can make cognitive flexibility easier.

In addition to the variables used in this research, negligence in the childhood and the effects of exploitation flexibility and cognitive structures can be studied. This study is carried out with the university students who don’t have any psychological or psychiatric problems. The similar studies can be done with the participants who have psychiatric symptoms and also the participants with psychiatric symptoms can be compared with the participants who don’t have any psychiatric symptoms. Moreover, the studies including parents and children can be done together.

Although there is theoretically a deterministic viewpoint about the fact that the schemas which are formed by the relations in the childhood influence subsequent relationships, Bowlby suggests that the individual’s intellectual capacity on inner working model can be increased, corrective and therapeutic relationships can be formed and some changes can take place in this way (Hazan & Shaver, 1994). Furthermore, descriptive and practical studies about cognitive schemas focusing on flexibility and attachment of parents and children within the context of school based counselling services. The individuals who do not have inappropriate attachment and flexibility can be provided with counselling services and they can be helped to
develop corrective relationships. Finally, the fact that the variables increasing anxiety can be studied and intervened can strengthen adjustment processes.

References/Kaynakça


