A study was made of social representations concerning intelligence and its development among groups of parents, parent-teachers, and university students. One of the main functions of social representations is to enable individuals to master and familiarize the unknown and inexplicable and stabilize social identity. What is inexplicable about intelligence and its development resides in the direct and everyday experience of interindividual differences. Research indicates that representations of intelligence are rich in content. While it is true that the logical mathematical model of intelligence is valued, intelligence is also considered as the interiorization of social norms and values; as a manifestation of social ability; as personality traits linked with discipline, rigour, personal commitment, and perseverance. How these themes are evident in different adult groups in relation to their level of direct experience with children is described in comparisons of parents and non-parents, parents with one and parents with two children, fathers and mothers, housewives and working mothers, and teachers with and without children of their own. Among the findings, parents, much more than non-parents, refuse any idea of the development of intelligence and prefer to think of it in terms of biological heredity. Parents with two children differ from non-parents in viewing intelligence as a gift which does not develop and is revealed through biological maturation, admitting no influence of environmental factors and, more particularly, no influence of family characteristics. (RH)
PARENTAL IDENTITY AND SOCIAL REPRESENTATIONS OF INTELLIGENCE AND DEVELOPMENT

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Introduction.

There is a growing interest in parental belief systems (or everyday ideas, conceptions, etc.) about development and intelligence. The predominant emphasis of this research is descriptive. We think that the emphasis should be on the conceptual framework underlying these research strategies and how such data are interpreted.

From our perspective, we are working using the notion of social representations, introduced in the literature by Moscovici (1961), which seems to offer fruitful hypotheses concerning the socio-psychological dynamics of constructing and maintaining everyday ideas about intelligence and its development.

Our main argument is that the core of the construction and the transformation of social representations lies in the experiencing of a socio-cognitive sense of strangeness and inexplicability about a specific topic, strangeness that become under certain circumstances cognitively and emotionally salient and urgent to be resolved. In other terms, one of the main functions of social representations is to master and to familiarize with what is at a certain moment unknown and inexplicable.

Where is this sense of strangeness and inexplicability about intelligence and development coming from?

Our suggestion, which is the guideline of our work, is that the relative inexplicability about intelligence and development resides in the direct and everyday experience of interindividual differences. This is the kernel, the milestone around which specific social representations are built, oriented either towards a kind of biological hereditarism or a sociological determinism.

In the history of sciences and cultures there is a plenty of controversies about the ultimate explanation of interindividual differences in intelligence (for instance: from Aristotle to Helvetius and Rousseau). No wonder therefore that for specific groups of people (for instance parents and teachers) interindividual differences in intelligence constitute a visible, immediate and salient experience they have to deal with everyday. As parents they have to deal with differences between their own child and others' or between their own two or more children; as teachers they have to deal with differences, for professional duty, between their pupils.

Furthermore these two categories of adults are confronted with a second experience: the experience of identification conflict. At least two examples can be described. The first one concern teachers which are at the same time parents. As teachers, they are called to defend the school organization and their own educational methods; as parents they have to defend their own children against the school, id est against themselves, in some sense. These two social positions may be therefore, in specific conditions, non-compatible from the socio-cognitive point of view.

The second example concern mothers which are involved in
professional activities outside the family. From the literature, it is well known that this socio-professional insertion may enter in conflict with intra-familiar roles being yet, unfortunately, dominant and reserved for women. In these two examples, we expect therefore specific adjustments of social representations in order to resolve these socio-cognitive contradictions.

Two brief comments about our main argument. First of all, social representations are not only ideas, conceptions, beliefs about any social domain. They are socio-cognitive products by categories of people, which are provoked for specific reasons by this topic, topic in whose respect they are relatively lacking of information; this topic is relatively inexplicable. Furthermore, social representations are not built only for cognitive purposes, like better understanding or explaining such and such topic. Social representations serve to master what is mysterious and inexplicable and to set individuals and groups in the social field. In this sense social representations allow individuals and groups to assign to themselves a particular social position, differentiating from other individuals and groups.

Summarizing the previous points, our theoretical model suggest two main socio-cognitive functions of social representations of intelligence and its development. First of all parents as well as parent-teachers have to familiarize with a problem: the relative inexplicability of inter-individual differences in intelligence. This also implies that parents and parent-teachers have to familiarize with what we would like to call here parental identity. Parental identity may be seen as problematic in the context of interindividual differences in intelligence because both parents and parent-teachers engage in activities which are assumed to enhance the development of intelligence. Nevertheless these two categories of adults may have a systematic experience of some failures in their parental and professional work as concerning development of intelligence of their own children and their own pupils as well. At the same time they have to maintain some positive social identity as parents and as teachers. So the case of parent-teachers category in our research design is the most interesting one, because of potential conflict between these two aspects of social identity.

So shortly presented our theoretical frame of reference, we are pointing out in conceptual organization of social representations, the active involvement in the problems of the relative inexplicability of interindividual differences and the associated problems of preserving positive social identity: we studied therefore the social representations concerning intelligence and its development in groups of parents, parent-teachers and university students.

An empirical illustration.

Out of a research carried out in collaboration with a colleague and friend, Gabriel Mugny, University of Geneva, I can briefly review the main results (cfr. Mugny and Carugati, 1985). The representations of intelligence revolve around a variety of dimensions. First, all the adults ponder over interindividual differences among children regarding intelligence. In particular the adults are concerned about whether this phenomenon is, for the most
part inexplicable or whether science can provide satisfactory answers regarding the apparent unequal distribution of intelligence across individuals.

A second dimension concerns intelligence as learning the social rules of modern society.

A third sees intelligence as being founded on superior cognitive processes of which logical abstraction and mathematics are the prototype and the computer is the symbol. Other dimensions the adults mention are intelligence as adaptive capacity to physical and scholastic environments; the role of the family's socio-economic status regarding heredity of intellectual capacities; the school and, more specifically, the teachers as those responsible for scholastic success or failure and for the accentuation or even creation of interindividual differences in intelligence; daily life in school; the use of school programs suitable for more intelligent children; the risk of more intelligent children being negatively affected by the presence of less intelligent ones; the role of subjects like math which have a greater scholastic worth; and last but not least, explicit reference to intelligence as a 'given' biological fact, as a gift.

As can be seen, the adult's representation of intelligence is rich in content. If it is true that the logical mathematical model is valued, intelligence is nonetheless also considered as the internalization of social norms and values; as a manifestation of social ability; as personality traits linked with discipline, rigour, personal commitment and perseverance.

Parental experience. Just how do these themes come out in the different adult groups in relation to their level of direct experience with children? Let us sketch a brief comparison between parents and non-parents. We already said that parents find themselves inside a socio-cognitive dynamic which has as its poles the unpredictability of the child's characteristics and their expectations of these characteristics. The parents are also skeptical of information given by specialists. This dynamic ought to accentuate an interpretation of interindividual differences in terms of intelligence as a "gift". The data we have seem to confirm this prediction. In fact, the parents explicitly come back to this subject and refuse, much more than the non-parents do, any idea of development of intelligence, seeming to prefer a conception in terms of biological heredity both of intelligence and of language.

This general conception can also be seen at a more 'practical' level in that parents consider scholastic performance as a sign of children's level of cognitive development. They believe that "wait-and-see" and "leave-them-alone" methods are more efficacious. From these results it would seem that parents, much more than non-parents, have a biological or 'naturalising' idea of intelligence and its development. Parental experience does therefore constitute one of the roots of a sort of 'naive' theory of inequality among children.

A second dimension one can detect in parents' conceptions is the idea of intelligence as ability of learning social rules. In fact, the parents much more than the non-parents take, into account this
form of intelligence which can be defined as 'social intelligence'. This conception is based on the principle of the adult's legitimate authority. Further, the development of social intelligence cannot find any autonomous forms of expression such as, for example, relationships between peers. Therefore, parents believe that to be efficacious, learning must take place under conditions of 'pressure' upon children, pressures that should be exercised with a 'velvet glove' so as not to provoke emotional problems.

But just what indicators do they have for the efficacy of their educational model? The general criteria is the school which should have qualified teachers who put into practice the current teaching programs in which the more important subjects (especially mathematics and language) act as reliable indicators for their children's intellectual level. In this way, the school, which is one of the compulsory worries for parents becomes as well as an institution a sort of a 'lay' temple for the manifestation of intelligence, the very criterion of intelligence. We say 'becomes' because the non-parent adults do not have such an articulated and coherent conception of general matters and educational practices. In some way parents 'socialize'at school to the extent they become directly involved as parents in educational problems and have to live with the everyday consequences of them.

It would appear from these results that the family is an important factor for children's intelligence. We might therefore expect parents to recognize this function. Yet when directly confronted with the question of the family's influence on the intelligence of their children parents tend to deny more than the students the fact that intelligent children come very frequently from families where intelligence is valued and where the socio-professional level is higher.

But why is this the case, two explanations can be put forward. We have seen that for the most part parents refer to the theory of natural inequalities. Intelligence is a gift; it is innate and so cannot have anything to do with the parents' socio-cultural level, unless that is one accepts a view of hereditary differences of intelligence by race which was however not put forward by the parents we studied. The parents also believe that the family environment to be less influential the more it is exploited or exploitable; either because it is thought to be of a low level (and it actually is very often) or because of children who have caused some sort of 'disappointment' for their parents (in their school results or in a disappointing report from the teachers!). In both cases to see the family as a possible factor in the development of the intelligence would mean that the parents' very own identity is involved in the attribution of responsibility for failure. A refusal of this recognition would therefore serve to maintain a positive social identity.

The intensity of parental experience. If the novelty of having a child and the unpredictability of its characteristics are at the core of parental experience, then having a second child ought to accentuate the dynamic we have so far illustrated. The theme of
equalities vs. differences between children is one of the themes that parents talk about more easily and that they seem to have deep rooted beliefs about. In our hypothesis the parents with at least two children ought to voice the typical representations of parents but in a more accentuated fashion. To verify this hypothesis we subdivided the parents into two sub-groups: those with one child and those with at least two.

The comparison between parents with one child and parents with at least two children highlights the functioning of socio-cognitive mechanisms centered on parental identity. The results show that parental identity intervene in more influential way from non-parent adults to parents with two children, tracing out a real and proper process of 'socialization' during which the experience of becoming parents (subsequently renewed by the presence of a second child) leads the parents to construct for themselves a specific interpretive model. This model is characterized by an increasing recourse to the 'theory of inequalities among children' inspired by a conception of intelligence as a 'gift' present in the child and which reveals itself (but does not develop) through biological maturation. The influence of environmental factors is excluded and more particularly any influence whatsoever to do with family characteristics.

If this the heart of the matter as far as the conception of intelligence is concerned (which leads to even the negation of its own development) then it is hardly surprising that parents with two children become even more skeptical about any information from experts and reading or from the mass media or science.

An important aspect which affects the experience of parents with at least two children derives directly from reorganization of family relationships following the birth of the second child (Dunn and Kendrick, 1982). It is already known from the literature on this subject that the father's style of intervention regarding the first child is modified upon the birth of the second. It is therefore no wonder that our 'two-children' parents do recognize (more than 'one-child' parents do) the importance of the 'psychological climate' and relational equilibrium for the development of intelligence both at home and at school.

Lastly, the presence of a second child does not modify the reference to the school as criteria for a good development in intelligence. Parents from the arrival of the first child, seem to develop two complementary conceptions. On the one hand, they share the idea of development as socialization to existing social norms which can be achieved through different sorts of pressure put on the child; on the other hand, the parents stick dutifully to the scholastic model regarding the very definition of intelligence.

These two conceptions join together in underlining success at school as the symbol of intelligence and scholastic failure as the symptom of its lack.

Being fathers vs. mothers . All these results confirm the emergence of a specific social representation directly connected with the experience of being parents. What is more, this representation is influenced by the presence of a second child and, therefore, by the new relationships thus brought about.
Can we at this point ask whether there are any differences between the father and the mother in their way of understanding the idea of intelligence and its development? Differences linked to gender can be expected here even though the literature on this would seem to point to differences that are less considerable than expected (cfr. Goodnow et al., 1983).

As far as the fathers are concerned, they agree that they have little importance regarding specific knowledge of the 'children's world' probably because being less involved in the child's upbringing than the mother, they do not feel in such a pressing way the need to read, to keep themselves informed, to listen to programs about development etc. Furthermore, fathers tend more than mothers to consider intelligence as a 'gift' and consequently to see development as a process that comes about autonomously and that can reap benefits from interaction with peers. Peer relations are also capable, in their opinion, of producing a reciprocal form of teaching, and hence an approach to education that is less 'interventionist' and more 'leave-them-alone'.

One can suppose that the typically male norm and ideal of 'autonomy' may have one of its origins (or at least a possible justification) in the specifically male parental experience! As far as the mothers are concerned, however, it is the socializing function that predominates in views of the child's adaptation to schooling requirements. This implies a major interest with the educational procedures for the child's cognitive activation. The mothers are also more interested than the fathers in acquiring information (through formal channels such as experts and the mass media, and also through much more informal channels such as chatting with acquaintances and friends or neighbours!) and are more informed than the fathers are about the 'children's world' and consider intelligence (much more than the fathers do) as the learning of social rules. This 'social' orientation is enriched by a multiplicity of perspectives linked to the fact that the information sources rarely agree on how to define the problems and above all on the ways of dealing with children. It is not surprising therefore that the mothers are on the whole more sensitive to a relativist conception of intelligence—a relativism which justifies in a more social way the interindividual inequalities regarding intelligence.

How can one fail to see in these results the personification in the fathers and in the mothers of the two sides of intelligence: intelligence as a 'gift' whose prototype is the rational thinking of the computer, and intelligence as the capacity of functioning in the social world, as the learning of the rules that govern everyday life?

In this way we have shown that if it is true that parental experience in the largest sense of the word, plays an important role in the organization of the social representation of intelligence, then it is also true that being father or mother seems to orientate and modulate certain specific aspects of the representation. The fathers seem to emphasize the maturationist aspect whereas the mothers underline more the socializing function of intelligence.

Housewives vs. working mothers.

We have said that the fathers (basically because they work outside
of the house) are less involved with the children, possess less information about the children's world. But mothers too may sometimes be less involved with their children and have limited opportunities of directly interacting with them. They may, in short, possess some of the characteristics we used to describe the fathers; this is obviously the case with those mothers who have outside work in addition to their housework (working or professional mothers). Are these mothers more similar to fathers or to housewives? What sort of conceptions do they have about intelligence in relation to their status as working mothers? If it is true that identity is an organizing principle of the representations then we do not expect simply similarities/differences regarding the fathers or the housewives, but specific effects.

We now present a direct comparison between housewives with children and working mothers while the comparison with the fathers will be qualitative and indirect.

Regarding working mothers they talk about a maturationist conception of intelligence less than the housewives do, but deny more strongly that intelligence develops over the years. This maturationist idea is linked (as we saw on page) to the idea of intelligence as a 'gift' in the case of fathers. But in the comparison between housewives and working mothers the negation of development is not connected with the idea of 'gift'.

The fact of saying that the child spontaneously manifests its own intellectual capacities would seem to have a justifying function for the working mothers who are less involved (at least as far as they themselves are concerned) with the child. On the other hand, this idea of spontaneous development can facilitate the decision to restart work at the end of their maternity leave (cfr. Lamb, Chase-Lansdale, Owen, 1979).

Sharing a conception of intelligence as spontaneous manifestation of intellectual capacities, the working mothers can better cope with their fear of not participating personally in the development of the child. In this sense they seem to develop defense mechanisms, which they would see as 'deviant' when compared to the dominant mother model.

These defense mechanisms seem also to be present regarding the attribution of responsibility for their children's failure or difficulties at school. In fact, the working mothers are much more inclined to consider certain difficulties at school as being avoidable if only the teachers were more understanding, while they are very skeptical about the professional capabilities of the teachers themselves. The attribution of responsibility is directed at the teachers ad personam, that is, at specific and concrete teachers.

So it seems that working mothers trust fully in the school as an institution (recognizing and accepting its aims) making the teachers directly responsible for any eventual failures or difficulties of their pupils.

If this be the state of affairs one can draw from the position of working mothers, then even an indirect comparison with the fathers will show how the idea of intelligence and its development 'provokes' the working mothers much more profoundly than the fathers within the parental model that we described earlier. In
in the case of the working mothers, the theme of intelligence is very closely linked with parental identity and professional identity, with all the ambivalence that such experiences produce in many working mothers.

These two experiences have a point of equilibrium in the social identity of working mothers. It is for this reason that within the dynamic of the representation of children's intelligence, the preservation of a relatively positive identity plays a much more direct role for working mothers than it does for fathers who see any definition of their identity in relation to the way their children develop as being much less pertinent. We find in both the working mothers and the fathers judgement criteria about intelligence which are relatively alike, whereas the housewives differ quite distinctly from the working mothers. We can thus put forward the hypothesis that the woman who works assumes certain judgement criteria that are typical of the male position. These are not, however, merely beliefs and opinions about a theme important though it may be.

Particularly in the case of working mothers, the theme of intelligence disturbs a difficult equilibrium of parental/professional identity which is preserved by means of a complicated strategy of emphasizing certain opinions at a general level and of attributing responsibility for the consequences (or at least those feared) on the development of the child's intelligence, both in general as well as in the case of one's own children.

Being parents and, contemporaneously, teachers...

Intelligence inevitably constitutes a pertinent topic for those who make teaching their profession. Direct contact with the everyday reality of pupils and of school organization ought to produce some specific adjustments in the image the teachers form of intelligence and its development. In the first place, one should be able to note an emphasis on the organizational constraints (cfr. Morrison and McIntyre, 1976; Gilly, 1980) and hence a lesser importance given to some ideal principles. In the second place, we expect to see the appearance of dynamics linked to professional identity which in turn becomes more salient and very often undermined by the scholastic failures of certain students. In this case a group of university students in education is useful for comparative purposes in order to highlight the characteristics of the teachers.

The results seem to be clear: compared to the students in education, the teachers come up with a conception of intelligence in terms of 'gift' and they focus in particular on school norms as defining principles for intelligence. The logical mathematical and cybernetic model of intelligence combines with the normative value of the 'weightier' school subjects (that is, math and language) and leads to a definition of intelligence as adaptation. One could say that the teachers define intelligence as that which is valued in the scholastic institution; a clear echo of the best known and most prestigious statement that "intelligence is that which is measured by intelligence tests". It is no wonder therefore that teachers consider the school as a sort of 'field laboratory' where intelligence tests and more generally adaptative tests for institutions are periodically carried out!

Let us now have a look at how parental identity comes into play in
the case of teachers. If we compare those teachers without children with those with children, we see that the latter refuse in a distinctly more decided manner the direct responsibility of teachers in cases of school failure. There is an explanation for this refusal to accept responsibility if we think that two identities come together in these teachers: being teachers and being parent. We have however seen that the non-teachers parents attribute specific responsibility to the teachers (and this is all the more so when their identity as parents possesses conflictual aspects as in the case of working mothers!).

The teachers who are also a parent finds themselves in a specific conflict of identity situation: as parents they would accuse the teachers but as teachers they ought in some way to accuse themselves. The socio-cognitive solution that our teachers adopt is to deny responsibility contemporaneously as teachers and as parents! This effect of deresponsabilization goes beyond its direct implications: the teachers with children also deny a more general responsibility of the scholastic institution for failures, legitimated at a more abstract level by referring more to intelligence as a 'gift' unequally distributed among children.

As can be seen, when the teachers are asked about intelligence (and all the more so if they also happen to be parents) they find themselves caught up in a crucial conflict of identity which produces a solution by means of a sort of deresponsibilization of the teacher both as individual and as 'agent' for the scholastic institution. A 'scientific' legitimation of this socio-cognitive solution can be found in the interpretation of intelligence and its development as a gift unequally distributed among children.

References

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