

...Once upon a time...

The case of social representations of intelligence

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This commentary goes over the research on the sociogenesis of social representations of intelligence (SRI), following the hypothesis that representations tend to turn an unfamiliar thing or the unfamiliar in general, into something familiar. In the case of intelligence, the importance of its study in terms of SR is justified by reminding that it is a social object which almost everybody agrees in placing a positive value on it, but science may not be allowed the ultimate explication of it; furthermore SR of intelligence could be seen as having an impact on the development of child's intelligence, through the parents'/teachers' educational procedures. Four conditions are proposed as the sociogenesis of SRI: i) the functional necessity for specific categories of people to organize their own conceptions ii) because they are confronted with a given value-laden topic or a set of interrelated value-laden topics which iii) should be salient and relatively inexplicable for these people, for whom iv) the topics activate some identity problems and imply an unavoidable decision making. Several categories of women (mother, teachers, working mothers, housewives) have been chosen for testing the plausibility of this way of studying SRI. The role of relative inexplicability of intelligence has been documented as the origins of SRI in terms of a theory of naturally gifted inequalities. Over years this approach to SRI has been documented in more recent empirical investigations, different social categories of women and different cultural settings. Future perspectives are discussed to expand the study of sociogenesis of SR in different social subjects, focusing on the role of the relationships between the relative inexplicability of a subject, the conflict of identities, and the necessity of decision-making.

In the introduction of *Social representations and the development of knowledge*, Duveen and Lloyd (1990) claim that a genetic perspective is implied in the conception of social representations as far as their organization is a construction and thus the outcome of some developmental process. According to this perspective, to grasp the complexities subsumed in it, Duveen and Lloyd distinguish three types of transformations associated with social representations. Among them, the process of *sociogenesis* concerns the process through which social representations are generated. The psychoanalysis is an example of the transformation of a scientific knowledge reconstructed by different social groups. Moscovici (1981, p. 188) put forward three customary hypotheses for accounting the dynamics of what ten years later has been conceptualized as sociogenesis of SR:

the interest hypothesis: people try to create images, capable either of expressing or concealing the individual's or the collectivity's aims, these images and statements would then be a subjective/collective distortion of objective reality;

the disequilibrium hypothesis: all knowledge about the world is a way of solving psychic affective tensions resulting from failure to become integrated in society. They constitute therefore, imaginary compensations whose purpose is to restore certain equilibrium.

Lastly, *the control hypothesis*: groups produce representations in order to act as filters for information coming from the environment and to shape each individual's behaviour. It is a sort of manipulation of the thought process and of a structure of subjective reality.

But Moscovici's original hypothesis is that every representation tends to turn an unfamiliar thing or the unfamiliar in general, into something familiar. His argument underlines the distinction between reified universes of science and consensual universes of everyday life, which are universes where people want to feel at home, sheltered from areas of disagreement and from incompatibility. Whatever is said or done tend to reconfirm the accepted assumptions and meanings, to affirm rather to contradict, whilst in the reified universe if science is governed by the primacy of probe over the verdict. People are confronted with the dynamics of familiarization whereby objects, individuals, and events are recognized and understood on the basis of prior encounters or models. What is worth noting here is that it would be a mistake to think that we are dealing here with a simple analogy; we are faced with a real, socially meaningful fusion with a shift in values and feelings. As an example Moscovici refers to what happens between psychoanalyst and his/her psycho-analyzed: some people visualize a 'confession'. Transfer mechanisms are dissociated from the psychoanalysis to finding a more commonplace niche within religion.

HOW TO APPROACH INTELLIGENCE AS SOCIAL REPRESENTATIONS

According to this argument, during the '80s the *sociogenesis* of SR of intelligence and its development has been illustrated (Mugny & Carugati, 1985; 1989).

In the case of intelligence, the importance of its study in terms of SR could be justified by two arguments. The first is a reminder that it is a social object which almost everybody agrees in placing a positive value on it, even if intelligence lends a great number of different approaches both between scientific disciplines (psychology vs. sociology, vs. anthropology) and among each of them. It is hardly surprising, therefore, that we should find such heterogeneity in social groups and categories, i.e. in common sense views of intelligence during everyday life. But given the positive value attributed to intelligence, even not experts, everyday people all 'know' what intelligence is. The second argument concerns the impact SR of intelligence can have on the actual development of child's intelligence, through the parents'/teachers' educational procedures.

According to our approach in DP, cognitive development is mediated by actual or symbolic social interactions (both with peers and adults) which result in the gradual construction both of cognitive tools and of systems of social knowledge. Particularly parents and teachers are essential participants in children's socialization: for this purpose, we only quote the literature on parenting/teaching styles and on ideas-behaviour relations (Miguel, Pires Valentim & Carugati, 2009).

The third argument involves the effect of unfamiliarity felt under inferential pressure and of a shortage of information when a specific topic: *the origins of interindividual differences* in intelligence becomes salient.

Summing up, four conditions could be conceptualized at the origins of the sociogenesis of the SR of intelligence:

- i) the functional necessity for specific categories of people to organize their own conceptions because they are confronted with*
- ii) a given value-laden topic or a set of interrelated value-laden topics which*
- iii) should be salient and relatively inexplicable for these people, for whom*
- iv) the topics activate some identity problems and imply an unavoidable decision making.*

We can now enter into some details of the above mentioned four conditions. First of all what categories of people could be chosen for empirical evidence? We propose parents and teachers, and particularly mothers and teachers who are at the same time mothers. Why these specific categories

of women? Our first concern is with the nature of the information available about the actual object of representation. The type of information may be formal or informal.

Mothers for instance might not be experts about intelligence; their main sources may be personal experience (the everyday experience of being mothers, media exposure, reading of magazines, etc.). The knowledge of mothers consists of unsystematically collected information (e.g. Piaget, Freud, Winnicott -the psychoanalysis, once more!) obtained through the everyday participation at the discourses, which circulate in their culture.

Some other people, on the other hand, acquire information through more systematic sources. Teachers, for example, in the course of their professional education, have access to more organised information, such as psychological and sociological models of development, teaching and learning (e.g. Piaget, behaviourism). Thus mothers may be seen to fall into a category between lay persons and teachers. They have specific reasons for constructing and sharing representations of intelligence, and teaching and learning methods. Both parents and teachers have also to cope with the question of interindividual differences about intelligence, the origins of these differences, and the question about their responsibility towards the success and failure at school of their children.

The question of interindividual differences concerning intelligence and their origins is a very old one that has intrigued over the centuries, philosophers psychologists and every kind of 'maîtres à penser', giving rise to endless controversies. Intelligence emerges as one of the most predominant positive values of Western society; no wonder, therefore, that around this kind of 'idola tribus' a polysemantic discourse, both by lay people and scientists is continuously being built and rebuilt. But while scientists could afford the luxury of keeping themselves engaged in endless debates on this topic, parents and teachers have neither the freedom nor the time for such contemplation, nor do they have the time to wait for the ultimate scientific explanation. Teachers and parents are very concerned in dealing with everyday problems and responsibilities about school activities and homework.

Like people confronted with the unfamiliarity and the relative inexplicability of the psychoanalysis, and illness (as in the classical studies on social representations: Moscovici, 1961; Herzlich, 1972; Jodelet, 1981) parents and teachers confronted with interindividual differences in children and pupils, may feel a gap between the information at their disposal and the information necessary to give meaning and justification for this phenomenon and its implications at home and school. In more theoretical terms, parents and teachers are very sensitive to the relevance of questions such as the origins of interindividual differences in intelligence and school learning. While they may lack a complete grasp of the subject, the concrete and everyday problems and necessities they encounter about intelligence and school performance force them into making inferences and decisions. And,

indeed, it is the coupling of a relative lack of information with the pressure to make decisions which is a principal characteristic of these social categories.

A Tentative Model

A first set of hypotheses for studying the sociogenesis of SR of intelligence is inspired by tension to turn an unfamiliar thing (or the unfamiliar in general) into something familiar. For testing this hypothesis, we have an object: *the existence of interindividual differences in intelligence*, and the inexplicability (unfamiliarity) may be explored by the degree of confidence attributed to the scientific disciplines (biology, psychology).

The second set of hypothesis is devoted to the relationships between social representations and social identity: more specifically, the experience of conflicts of identification is conceived as a factor influencing some transformations in social representations. Concretely speaking, teachers may be parents at the same time. As teachers, they try to prevent pupils from failing in school; as parents, they are protective towards their children against school. Thus, in a way, parents try to protect their children against themselves. A second example is the working mothers. As a housewife, a mother may tend to explain intelligence and school performance as a product of her direct involvement in child-rearing and as a task socially assigned to mothers. However, as a working mother, she may feel guilty about not being involved enough in the up-bringing of their children. In both cases, (parents/teachers and working mothers) specific socio-professional positions may induce identity conflicts which may be resolved by re-adjusting their representations of intelligence. We do not, by any means, conceive of these re-adjustments as biases or errors as the social cognition approach suggests. On the contrary, the hypotheses we have sketched suggest that the functions and the transformations of social representations are located at the interface between the individual and society. Transformations of social representations occur when the unfamiliarity and the inexplicability of interindividual differences become salient for particular social categories and when this topic activates a conflict of identification. The socio-cognitive effect of this conflict is the naturalization of the intelligence, i.e. the construction of a 'theory of natural inequalities', the intelligence as a gift unequally distributed among the individuals.

In the first study of social representations of intelligence and development (Mugny & Carugati, 1985) we documented the central function of the *theory of natural inequalities* as an anchoring explanatory principle of the multiple meanings of the phenomena labelled intelligence, and more specifically the role played by the intriguing and to some extent the mysterious question

of the unequal distribution of intelligence¹. These results have been documented since the first study (Mugny & Carugati, 1985) and systematically confirmed over years (Carugati, Selleri & Scappini, 1994; Carugati & Selleri, 2004; Amaral, Vala & Carugati, 2004; Miguel, Valentim & Carugati, 2010).

Why though, after all, should these interindividual differences seem so strange? Our hypothesis maintains that they seem to be so for those people who subjectively do not have an alternative explanatory model at their disposal. We can assume that some individuals may have access to and trust specific information. At this level, the sophistication of the explanation is fairly unimportant: what matters here is people's belief or confidence in interpretive power of a given model, which they can adopt if needed, without actually knowing it. Thus the subjective inexplicability and lack of information about alternative explanations ought to give salience to the question of interindividual differences as the topic which may be explained by the reference to a *'theory of naturally gifted inequalities'*².

Intelligence as a gift is coupled with both cybernetic and social attributes (computer is the prototype of intelligence; mathematics at school are the prototype of intelligence) but intelligence is also conceived as awareness and respect of rules and social norms, and it should be squeezed off through every kind of educational practices!). Moreover, systematic pressures on the child, which must be applied through school experiences, are seen as means to get intelligence manifest itself, and specific responsibilities are attributed to teachers and their competences.

¹ More than 700 Italian and Swiss adults (parents, non parents, teachers) were administered a questionnaire including more than 100 items formulated so as to represent a broad spectrum of views and positions concerning intelligence and its development. A specific item 'The existence of differences of intelligence between individuals is a mysterious problem which science has been unable to solve' (scale 1: disagreement -7 agreement) has been chosen as independent variable. Adults sharing the mysterious view (5-7) and adults rejecting the mysterious view (1-3) are two contrasting subsamples for testing the hypothesis of its influence in organizing the SR of intelligence in terms natural inequalities or gift shared much more by mysterious subjects than non mysterious ones.

² Through a factor analysis (ML, Varimax rotation) the first factor has been interpreted as THE THEORY OF NATURAL INEQUALITIES AND GIFTEDNESS. Some people are born with more intelligence, others with less; The brain is the birthplace of intelligence; There must be more advanced curricula for intelligent pupils than for less intelligent ones; Basing curricula on the pupil of average intelligence results in the impoverishment of the most intelligent; Intelligence is gauged by the capacity for abstract thought; Intelligence is the pupil's capacity to understand the meaning teacher gives to a question; Being intelligent means knowing how to take advantage of an opportunity; There can only be one definition of what intelligence is; You have to be intelligent to do well at school. Logic and mathematics are the prototypes of intelligence: Intelligent pupils come from families where parents value intelligence. If parents do not valorise a particular subject, efforts to teach it will be in vain; A pupil who does not value intelligence will never be intelligent; Homework is important because it enables a relationship to be established between parents and school.

The Role of Social Identities

Social identities can be considered as steering the socio-cognitive management of the conception of intelligence in terms of natural gift. The main assumption of this identity principle is that specific ways of interconnecting various content areas are produced by parents and teachers for whom intelligence is a salient part of everyday experiences and for whom it constitutes a significant part of their identity. It is primarily for parents (and for similar reasons for teachers) that the explanation of interindividual differences in terms of gifted intelligence is an answer to their daily experience. Moreover, parents, who do in fact make intellectual differences salient, show more marked divergence between their judgments of bright and mediocre children (particularly in school subjects, as mathematics versus drawing, for instance!) in terms of gifted intelligence. Reciprocally, non parents consider bright pupils in mathematics as successful members of bright families of high socio-economic and cultural status. Again, the refusal by parents of 'blaming the family', do confirm the role social identities play in organizing ideas and judgments (Mugny & Carugati, 1985, ch.5).

Social identities have also been proved to be effective, when divergent opinions clash as a result of different identities. The case in point is working mothers, compared with full-time mothers (Mugny & Carugati, 1985; Carugati, Emiliani & Molinari, 1990; Molinari, Emiliani & Carugati, 1992). Working mothers underline an innatist view of intelligence, coupled with the importance of socio-emotional equilibrium between children and adults and the image of the gifted pupil. Working mothers are, to some extent, more defensive against a socially and academically inspired 'bad conscience' (how often experts underline the primacy of mother-child attachment) about not being enough involved with their children.

The influence of social identities in mothers with different professional roles was confirmed when intelligence has been replaced with the complementary topic of *character* (Emiliani & Molinari, 1988). When talking about their own children (aged 2 to 6) mothers (housewives, office workers, teachers) anchor their discourse in the character as a way to give meaning to the actual skills of their children and their development. Character is, in mothers' words, a natural property (like the intelligence as a gift) in a positive version: 'good character'; 'strong character', rooted in parental heredity and subject to little influence through family upbringing.

When in search for a logic of the connectedness of women's ideas, we have to acknowledge that these ideas are by no means a site of incoherence or arbitrariness. A systematic pattern of results (Carugati, Emiliani & Molinari, 1990) confirms as the main source of representations of child development the inexplicability of interindividual differences, at the level both of the subjective acknowledgement that intelligence and character are by no means explicable, and of

subjective lack of information about how much the scientific disciplines may contribute to the explanation of child development.

But this is only the first act of the comedy. *Being mothers is not enough*, as far as mothers' professional identity plays a significant role in moulding their ideas about child's development. The case in point is mothers who are also teachers. What characterize their discourse (vs. housewives' and office workers') is a conflicting picture of a child in general (as autonomous and intelligent) and of their own child.

Where does this conflict come from? Teachers do disagree firmly with the traditional division of housework and parental roles within the family; they demand an active commitment of their partners with their children. Teachers do not seem to be worried about traditional educational practices (toilet training, obedience); on the contrary, they consider for their children autonomy, curiosity and adaptability towards the world to be important; characteristics they believe they are able to influence. Surprisingly enough, teachers describe their own child in terms of dependency (experienced as painful by both the mother and the child). One may ask whether some kind of idealized child as 'autonomous and intelligent' will influence some parents' behaviours. A tentative illustration of this point is the correlation between the image of autonomous and intelligent child and the conversational styles teachers use in their daily verbal interactions with children (aged 2 to 6 years: cfr. Molinari & Emiliani, 1990, p. 105). In fact, teachers show more frequently a narrative (versus dialogical) style: they take for granted the supposed child's ability to understand a story, without monitoring the child's comprehension (through, for instance, asking the child for retelling some item of the story).

INTELLIGENCE, DEVELOPMENT, LEARNING AND THE CHILD: TELLING MORE THAN WE KNOW

Far from dissolving into a sequence of errors and biases and an absence of a logic, everyday thought seems to have a coherence of its own, and is a type of rationality which actually assumes a cognitive polyphasia, in that it is based on a multiplicity of different orders of reasoning and a diversity of socio-cognitive functions which accounts for the specificity of the way different groups talk about interrelated topics concerning development and the child.

In order to show how rich and original these discourses are, as far as we take into account the specific category of mothers, a general model has been outlined alongside three steps (Molinari, Emiliani & Carugati, 1992). The first one is about the origins of social representations. Four different sources have been chosen as to be relevant for the theory of gift, about development: the

first source is the subjective lack of scientific models of explanations, while the second refers to the relative awareness of inexplicability. Two other sources were added: i) sharing the idea that biology and mathematics are important for the explanation of children's development. It is assumed that mothers who share such an opinion would agree with a biological perspective); ii) viewing psychology and social psychology as important disciplines would lead to sharing an interactionist view of development.

These four sources have been found as being significantly related to only one general conception of children's development shared by mothers: Character as a natural gift, underlines the idea that nature unequally distributes several characteristics (in particular autonomy and firmness) among children. Surprisingly enough, despite the fact that some academic psychological models do support the importance of early interaction for the child, from mothers' eyes such disciplines are assimilated to the mainstream natural sciences; thus consistently, psychology and social psychology are seen apart from the conception that children develop through interactions with their own mothers.

At the second step, character as a natural gift and social interaction have been found related to learning processes: character as natural gift is related to learning as spontaneous maturation; social interaction is related to learning as a consequence of teacher – pupils and between schoolmates productive social relations.

Finally, how mothers do link the general conceptions with the perceived influence on their own children? This third step should be considered as a crucial one for the understanding of the links between ideas and practices (at least, in terms of perceived influence). In particular, we focused on the perceived influence on the autonomous child and the intelligent child.

The evidence is fairly clear: mothers who agree with learning as spontaneous maturation do not feel they can exert much influence over the characteristics of intelligence and autonomy of their own child. On the other hand, mothers who agree on the importance of social interaction for learning also perceive a fairly high degree of influence over the autonomy and intelligence of their own child.

At that point it seems well established that women and particularly mothers, do anchor their representations of intelligence on two main reference points: as a gift unequally distributed among individuals; as a set of *mental and social instruments* activated through social interaction which enable the child to succeed in his/her environment, particularly at school.

Moreover, when we study women who are mothers non-teachers and women who are teachers non-mothers (Carugati, Selleri & Scappini, 1994) the figure is even more interesting. Mothers & non-teachers underline intelligence *both* as gift and a matter of social interaction

(according to a positive correlation); whilst for teachers & non-mothers intelligence is *either* logic or social (negative correlation). In other terms, mothers seem to conceive intelligence in a *P & Q logical format*, whilst teachers as *P & not Q* or *Q & not P* logical format. Isn't here a very amazing form of logic in cognitions?

In our opinion, mothers and teachers share (i.e. are consensual about) the general architecture of the discourses about intelligence but they differ in the ways finer grained themes become salient: the institutional influence of school as a *thinking environment* which moulds general ideas and anticipated teaching methods seem apparent; the normative scientific definition of intelligence in terms of logic-mathematical figure should be kept distinct from everyday social intelligence by school representatives who in a sense perceive themselves as the 'vestals' and the 'talent-scouts' of intelligence. For mothers the dynamics are quite different: they have to cope with academic and everyday intelligence of their children both at home and at school, frequently both negotiating and in conflict with teachers. Thus mothers have to play two different melodies (logical and social) with the same instrument and for the same audience.

FINAL REMARKS

More than 25 years have elapsed since the first study of *Social representations of intelligence*.

Twenty years later, we had the opportunity to study an Italian sample of women teachers working at the level of compulsory schools and high schools (both private and state schools: Selleri & Carugati, 2004). A trio characterizes intelligence: the *theory of gift* is complemented by the natural inequalities between people (people are born with differences in intelligence). Moreover family contexts are acknowledged as playing a role in hosting intelligence, and this role is coupled with conformism and school assessment. Finally, another couple of contents, logic and school success, are invoked. The most apparent result is the pervasive influence of the subjective sense of inexplicability of intelligence on the way teachers are positioned on the content of factors. As for the intelligence, *teachers* who consider it as inexplicable are more prone to see it as a gift unequally distributed among pupils, coupled with conformism, assessment, and logic and school success underlined as instrument to improve (if possible) intelligence. Moreover teachers who are at the same time mothers are even more prone to this interpretation, whilst teachers non mothers are more cautious.

Our first reaction was 'it is too good for being true'. In fact, the overall pattern of 20 year-old results has been confirmed. The socio-cognitive organization of teachers' representations fits previous results (Mugny & Carugati, 1985). Given that 2000s in Italy was a period of institutional

school reforms, it is quite interesting notice that teachers working in different socio-institutional (school levels) and ideological contexts (state vs. private schools) do share common patterns of representations, which seems to serve as socio-cognitive anchoring points persistent despite diversities in work experiences and over years.

A complementary contribution has been documented by Rätty and Snellman (1995), when they show in Finnish culture that intelligence is associated with prominent hierarchical positions such as masculinity, high education and social success. They also found that the subjects' positions in social hierarchies (education, economic status, teacherhood and parenthood) tend to organize their representations of intelligence. In all these hierarchies, people in higher positions are inclined to regard intelligence as a 'natural' ability and to endorse a differential psychological concept of intelligence. A further interesting result is that the differential notion of intelligence is maintained by the school system. This notion shows up as a paradoxical attitude towards school success. Good achievement is not enough unless it is for the right reasons: 'genuine' giftedness and real intelligence. It is the gender of the pupil and the social position of his or her parents that are used as clues to the genuineness of academic achievement.

Rätty and Snellman conclude that the school is the originator of both the problem of individual differences and the solution to it; this solution then becomes an interpretive scheme which describes not only the school but also its acting individuals and groups.

Miguel, Pires Valentim and Carugati (2011) recently are interested in the empirical endeavour of studying the effect of the degree of proximity, defined by specific socio-educational insertions (mothers, fathers, mother-teachers and non-parent students of psychology and science students) on the organization of social representations of intelligence, included different topics, namely concerning the concept of intelligence, its development and the effectiveness of teaching procedures. Results show that the principles organizing the contents of representations are linked to the personal involvement in intelligence, on which subjects more or less implied take different positions. Results suggest, therefore, that the content of representations is directly linked to the activation of social roles and the salience of the object, reflecting the functional character that the organization of representations has to specific social dynamics.

The aim of this commentary was to summing up a tentative way of exploring social representations as significant socio-cognitive organizations of different levels of symbolic productions, which are very likely to be moulded by social dynamics. Social positions and social identities are candidates for playing a prominent role in the sociogenesis and socialization of social representations at least when the topic is intelligence.

A further remark has to do with the so-called circularity between social categories and social representations. We have already documented for mothers that *being mothers is not enough* for understanding the richness of discourse about intelligence, in the same vein, even *being teachers is not enough*. If we conceive social representations as significant socio-cognitive organizations where content, social categories and social dynamics are interrelated, a theoretical framework is promising for avoiding the risk of circularity. The subjective inexplicability seems a good candidate for exploring several issues in the realm of social cognition.

According to the approach we have outlined several conditions seem unavoidable: the functional necessity for specific categories of people to organize their own conceptions because they are confronted with a given value-laden topic or a set of interrelated value-laden topics, which should be salient and relatively inexplicable for these people, for whom the topics activate some identity problems and imply an unavoidable decision making.

Whether this approach will be of some interest to the community of social representations arena is a matter of future. In our opinion, future may offer the opportunity to expand this approach to other issues: for instance health and illness, physical and mental handicap, school failure, performance in value-laden subjects (mathematics), particularly if coupled with gender differences. A complementary line of research refers to the *ontogenesis* of social representations as illustrated by recent work on Swedish folk high schools (Andersén, 2010), when the entering a new social context is framed in terms of the relationships between SR of school and desires and ambitions to progress to university. An example of the microgenesis of SR stems from the discursive approach (Andreouli, 2010), through interviews on naturalisation and identity in the United Kingdom. Both contributions could be further extended with the complementary approach of the sources of SR, i.e. the relevance of subjective inexplicability of issues and the relations between the reified universe of science and the consensual universe of specific categories of people challenged by the issues.

Social representations could be seen as an equilibrium point between the flow of individual and shared experiences, the flow of individual and social identities and the *themata* (Moscovici & Vignaux, 1994) or ‘recipes’ diffused in social organizations and cultures: a meeting point where people, immersed in the secular give and take between science and common sense, build some common conceptions concerning intriguing topics and build theories and string them together in complex and logical networks, in order to give meaning to everyday life, to communicate each other and to agree and disagree, according to the positions and social identities they possess in the wider network of social relations.

Far from dissolving into a sequence of errors and biases and an absence of a logic, everyday thought seems to have a coherence of its own, and is a type of rationality which actually assumes a

cognitive polyphasia, in that it is based on a multiplicity of different orders of reasoning and a diversity of socio-cognitive functions which accounts for the specificity of the way different groups talk about interrelated topics concerning intelligence and development.

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