

CHAPTER 5

FORMAL SCHOOLING AND SELF CONSTRUCTION: A HISTORICAL-CULTURAL NARRATIVE APPROACH

MANUEL L. DE LA MATA BENÍTEZ
ANDRÉS SANTAMARÍA SANTIGOSA
MERCEDES CUBERO PÉREZ

INTRODUCTION

The aim of this chapter is to present a Historical-cultural approach to the relationship between formal education, conceived as a sociocultural activity (Leont'ev, 1981; Wertsch, 1985), and self. Although the two terms, formal schooling and self have been the object of extensive research by scholars interested in the relationship between culture and mind, the specific connection between them has not traditionally been studied within the Historical-cultural perspective. There is a long tradition within this approach of research about how formal schooling influences mental processes such as perception, categorization and concept formation, memory, reasoning and problem solving that can be traced back to Luria's expedition to Central Asia. However, the specific topic of self and identity has not received equal attention. In contrast, the self has become a central topic of research in cross-cultural psychology (see, for instance, Kitayama, Duffy and Uchida, 2007, for a review of this tradition). Despite the fact that one of the chapters in Luria's (1976) work was devoted to the analysis of how cultural experiences such as formal schooling influenced self-definition and self-consciousness, this problem has received less attention than deserved within the historical-cultural tradition. In this Chapter, we aim to contribute to this field. To do so, we shall start by presenting the main research findings about formal schooling and mental processes in historical-cultural psychology, including Luria's seminal study. Once we have presented these findings and the predominant explanations proposed in this tradition (in terms of ways of thinking) we shall focus on the self. After reviewing cross-cultural research about self-construal (based on Markus and Kitayama's distinction between independent and interdependent self) we will outline the theoretical notion of self that we assume

and present some studies developed in our research group (Laboratorio de Actividad Humana) aimed at exploring how formal schooling may influence self-construction. To end the chapter we include a first attempt at making sense of our study data by integrating ideas from Olson (1994, 1997) Greenfield (2009, Greenfield, Keller, Foligni and Maynard, 2003) and her notion of “cultural pathways to development” with other concepts from the historical-cultural tradition.

FORMAL SCHOOLING AND MENTAL PROCESSES: EVIDENCE FROM (CROSS)-CULTURAL RESEARCH

There is a long tradition of research into the impact of formal schooling on mental processes. In this section we review this literature, and we start with the classical and well-known study of Alexander Luria (1976) in Central Asia.

LURIA'S CLASSICAL STUDIES ABOUT CULTURE AND MENTAL PROCESSES

The goal of these studies was to demonstrate the historical nature of psychological processes; in other words, the way that changes in the conditions of social practice created new activity motives and, thereby, transformed mental processes. For that purpose, Luria organized an expedition to Central Asia (part of the Soviet Union at that time) to investigate different groups of people living in the Republics of Uzbekistan and Kazakhstan. These people were immersed, in different ways and degrees, in a process of socio-economic and cultural change as a result of the Socialist Revolution in the Soviet Union. Hence, the participants differed in their level of schooling and their integration into the new forms of social distribution of labor.

In his study of categorization and concept formation the conclusions were that for participants who lived in more “traditional” life conditions (non-literate peasants in subsistence economy) *practical utility* seemed to be the general principle that organized all their classifications. In contrast, the participants who lived in “modern” life-conditions (working on collective farms and literate) used formal categories as a criterion for clustering. Similar observations were made by Luria when he presented the participants with problem solving tasks, such as syllogisms and others. While literate schooled participants solved the problems by relying on the conditions of the task, the answers provided by non-literate participants ignored these conditions (i.e., the premises of the syllogisms) and refused to draw conclusions from them; instead they appealed to their lack of personal experience about the case to justify their incapacity to answer. For Luria, these participants did not stay within the limits imposed by the problem, conceived as a “logical space”, regardless of the eventual existence of practical experience.

As a general conclusion, Luria thought that the Cultural Revolution associated to the Socialist Revolution (that included, among other changes, the extension of formal schooling) promoted new ways of thinking that enabled these people to go beyond the constraints of everyday concrete experience and base their thinking on logical operations. The differences observed by Luria in the ways schooled and non-schooled people solved cognitive tasks have been replicated in cross-cultural and cultural research. We shall now focus on some of these studies.

(CROSS-) CULTURAL STUDIES ABOUT FORMAL SCHOOLING AND MENTAL PROCESSES

Numerous studies have been conducted in cross-cultural psychology analyzing the influence of cultural factors and experiences on mental processes. Let us look at some of the main findings on the role of formal schooling on cognitive processes.

With regard to classification, cross-cultural studies have focused on three specific topics: the type of classification, the possibility of changing clustering criteria, and the use of language to explain the criteria. The results of these studies have evidenced differences between schooled and non-schooled participants in all these aspects. In this sense, children and adults with experience in formal schooling tend to use form and function as the predominant criteria for clustering. In contrast, the performance of non-schooled participants is based on concrete psychological operations (Bruner, Oliver and Greenfield, 1966; Greenfield and Bruner, 1966, Lin, Schwanenflugel and Wisenbaker, 1990; Mishra, 1997...). In a similar vein, schooled participants are more likely to vary the criteria (Cole and Scribner, 1974) and to provide verbal explanations for their categorizations (Scribner, 1968/1992, 1977; Scribner and Cole, 1981; Cole and Scribner, 1974). Non-schooled participants, in contrast, tend to explain their clustering by referring to the participation of the objects in the same practical activity.

In the same way, the general conclusion from the studies on problem-solving is that schooled children and adults, unlike non-schooled participants, tend to consider that these problems could be solved by applying a general rule (Cole and Scribner, 1974; Scribner and Cole, 1973, 1981). Later studies conducted in other cultures evidence the difficulties of non-schooled participants to generalize rules from one situation to another (Mishra, 1997; Olson and Torrance, 1996; see also Carraher, 1991; Schliemann, Carraher and Ceci, 1997; Saxe, 1991).

With regard to another related topic, syllogistic reasoning, studies conducted in diverse countries and contexts (Cole, Gay, Click and Sharp, 1971; Sharp, Cole and Lave, 1979; Luria, 1976; Scribner, 1977; Scribner and Cole, 1981) have evidenced differences in the responses to verbal logic problems, such as syllogisms, depending on the schooling experience of the participants. Non-literate participants do not usually answer these

problems, and when they do so, their response is based on the data from their experience. Schooled participants, in contrast, do not only answer with more frequency than non-schooled individuals, but they also tend to base their answer on theoretical reasoning (Sharp et al., 1979; Scribner, 1977; Scribner and Cole, 1981).

Among the memory tasks employed in cross-cultural research, free-recall is the one that has generated the greatest number of studies. Cole et al. (1971), for instance, carried out a study comparing schooled and non-schooled children, adolescents and adults from California and Senegal. Results showed that schooled participants recalled more objects and words than those without schooling experience. Similar results were found by Sharp et al. (1979) in a large study in Yucatan (Mexico), where participants with extensive schooling experience recalled more items than those with less schooling experience. Categorical clustering was extensively observed in those who had attended secondary school.

One of the questions which has provoked a great deal of controversy in cross-cultural research concerns the mechanisms that may explain the above differences. The study conducted by Scribner and Cole (1981) in Liberia among the members of the Vai group shed critical light on this issue. According to Scribner and Cole, the differences must be explained by the nature of the cultural practices or activities carried out in schools. These activities, rather than the use of specific technologies such as literacy, explain the cognitive changes associated to formal schooling.

These activities would promote different ways of thinking. These ways of thinking have been called *scientific thinking* (implying the predominant use of “scientific concepts”) (Vygotsky, 1986), *theoretical argumentation* (Scribner, 1992) or *propositional thought* (Bruner, 1986; 1990). Let us take a brief look at what is meant by these terms.

Vygotsky (1986) assumed the existence of different ways of thinking, as he showed in his analysis of concept development. He distinguished between *everyday* and *scientific concepts*. Everyday concepts consist of a set of specific objects that may constitute a concept, at least in relation to its external characteristics, (i.e. the elements included in the same category). However, because of the criteria used to put the objects together in the same group, it is far from being a scientific concept.

Scribner (1977), also from historical-cultural psychology, has formulated a second classification and she distinguishes between *empirical or functional* and *theoretical argumentation*. For this author, empirical or functional argumentation, a characteristic of non-schooled people, relies on the information coming from experience (functional evidence). Theoretical argumentation, on the other hand, is characteristic of schooled people, because they understand the demands and requirements of the logical genre and are able to argue on the basis of the limits imposed by this genre. Argumentation is based on formal evidence, coming from the information that is presented in the premises.

A third classification was formulated by Bruner (1986; 1996). He has distinguished between *narrative* and *propositional thinking*. They are two forms of meaning

construction, of understanding reality and, therefore, ways of making sense of experience. Narrative thinking orders experience temporarily to create a story in which two landscapes must be constructed. One is the landscape of action, where the constituents are the arguments of action (agent, goal intention, situation, instrument). The other is the landscape of consciousness, including the motivations, mental states and emotions of those involved in the action. In the propositional system, meaning is achieved by abstraction, sacrificing temporality, personalization and context. Particular instances are placed into larger and more general category systems. The propositional system shapes meaning-making through the structured network of symbolic, syntactic and conceptual rules governing language and common sense logic. In short, causal necessity (as opposed to narrative necessity) is established through this system.

Studies conducted by the Laboratory of Human Activity (LAH, in Spanish) with people attending adult schools in Andalusia have also provided evidence of the relationship between formal schooling and different mental processes: clustering, concept formation, memory, etc. (L.A.H., 1988; de la Mata and Sánchez, 1991; Sánchez and de la Mata, 2005, Cubero and de la Mata, 2001, Cubero, de la Mata and Cubero, 2008; Santamaría, Cubero and de la Mata, 2010). Again, results have evidenced differences in the way people solve different tasks. While more schooled people used what Bruner called propositional thinking, the participants with very little educational experience, in contrast, used a narrative way of thinking.

SELF IN CULTURAL CONTEXT: CULTURAL RESEARCH ABOUT THE SELF

The influence of formal education on mental processes does not seem to be the only one that this institution and the cultural practices associated with it exert. From psychology and the social sciences, in general, it is claimed that literacy and formal schooling have played a fundamental role in the constitution of the modern subject (Olson, 1994, 1997; Ramírez, 1995). Thus, for example, Olson (1994) claims that the modern mind has been constituted since Descartes and authors like Hume, Berkeley and Kant and the ideal of the Enlightenment. These authors emphasize the notion of an autonomous subject, whose acts are governed by a mind populated with ideas, beliefs, desires, memories, etc. For Olson, these notions of subject and mind are related to the cultural changes that have arisen in the Western world since the extension of literacy at the beginning of Modernity (linked to the Protestant Reformation and the origins of capitalism). More specifically, Olson claims that literacy and literate practices permitted the separation of things and their representations, so that thinking became an “autonomous” activity about the world, in other words, an “epistemic” activity, with mind an object defined by mental states.

We believe that in psychology, despite its importance, this issue has not received the attention that it requires. Let us look at some data to support up this claim. Firstly, in one of the studies carried out by Luria (1976) the participants were asked to define themselves. This study evidenced the difficulties experienced by illiterate non-schooled peasants from Uzbekistan to define themselves as individuals, regardless of their groups of belongingness (family, village...). In contrast, the participants living in "modern" conditions (i.e. working on collective farms and with some school experience) evidenced a higher tendency towards self-analysis and self-consciousness, providing self-descriptions in terms of abstract psychological traits.

More recently, cross-cultural research in psychology has shown differences in the conception of the self (self-construal) that is characteristic of different cultures. In this sense, Markus and Kitayama (1991) have distinguished between *independent* and *interdependent* self-construal. According to Markus and Kitayama, *independent* self-construal is characteristic of Anglo-American, Northern and Central European cultures. This independent self is conceived as a separate and autonomous entity, defined by a unique repertoire of traits, capacities, thoughts and feelings. The focus tends to be on asserting one's needs, as well as preserving individuality, uniqueness and independence. In contrast, the *interdependent* self is characteristic of non-Western cultures (Asian, African, and Latin American cultures). In this case, the self is experienced as part of a social web (Cross and Markus, 1999; Markus and Kitayama, 1991; Kagitçibasi, 1997, 2005; Triandis, 1995). For a person with a highly interdependent self-construal, the boundaries of the self tend to be more fluid and include significant others in specific situations; the concept of the self tends to be less static and more contextualized and situated. These differences in the emphasis on independence vs. interdependence are evidenced in diverse aspects of the self, such as the experience and expression of emotions, cognitive processes, attributions, and moral reasoning or achievement motivation, among others (Markus and Kitayama, 1991).

Notwithstanding, authors like Kagitçibasi (1997, 2005, 2007) have rejected the traditional consideration of autonomy as opposed to relatedness, which is characteristic of Western psychology. For Kagitçibasi, the Western individualistic concept of autonomy connotes two different meaning dimensions. One is related to personal separateness-relatedness (the degree of distancing the self from others). She calls this the "interpersonal distance" dimension, with two poles (separateness and relatedness). The other is the "agency" dimension, which extends from agency (autonomy) to dependency (heteronomy). For Kagitçibasi these two dimensions are independent, so that agency does not necessarily mean separateness. Kagitçibasi proposes the construct of autonomous-related self that is based on a reconceptualization of autonomy, evoking its meaning of agency and untangling it from personal distance. The model of the autonomous-related self would be prevalent in urban contexts of

traditionally collectivist cultures in the “Majority world.” It is emerging from socio-economic development and urbanization in these societies (i.e. Mexico).

The relationship between culture and self is closely connected to the relationship between autobiographical memory and culture. In these studies, one of the aspects that has received most attention is the *age at the earliest memory* (Wang, 2001, 2006; Wang and Conway, 2004). Evidence shows that the first memory of individuals from cultural groups that emphasize the importance of the personal past is earlier than in other cultural groups (Mullen, 1994; MacDonald, Uesiliana and Hayne., 2000; with additional support in Harpaz-Rotem and Hirst, 2005). When asked to recall their earliest childhood memory, Europeans and Caucasian Americans remember events back to, on average, age 3.5, whereas Asian adults’ first memories are dated about 6 months later (MacDonald et al., 2000; Mullen, 1994; Wang, 2001; Wang and Ross, 2005). The cultural variation in the age at the earliest memory is thought to stem from different cultural conceptions of self (Markus and Kitayama, 1991; Mullen, 1994; Wang, 2001, 2003). The autonomous self-construal characteristic of Western cultures may drive the early emergence of an organized, articulated, durable memory system for events that happened to “me”. In contrast, a relational self-construal that focuses on community rather than agency may de-emphasize individuality and promote social integration and dependence. Consistently, earliest memories reported by Caucasian Americans are more elaborated, specific, self-focused, emotionally elaborate, and less socially oriented than those reported by Asian people (Han, Leichtman, and Wang, 1998; Leitchman, Wang and Pillemer, 2003; Fivush, 2011).

From our perspective, the studies mentioned above represent a precedent for the study of how cultural experiences may influence autobiographical memory and the self. Among these cultural experiences, our interest focuses on formal schooling. Before coming to this issue, we would like to outline our theoretical approach to the self. In this sense, we want to emphasize that we do not conceive the self as a homogeneous and stable entity, a sort of unified support of individual acts. On the contrary, we agree with many scholars who define the self as *distributed* and *dialogical*.

Bruner (1996), for instance, defends the existence of a distributed self, and considers it as “a swarm” of participations that is the product of the situations in which the person participates. The person, from this perspective, constructs his/her identity as an individual differentiated from others. On the other hand, Bruner claims that the self takes its meaning from the historical circumstances of culture. It rests on meanings, languages and narratives which are culturally and historically specific (Bruner, 1996; 2003). In a related vein, one of the most significant characteristics of the self is its narrative structure (the *storied* self, according to Bruner). When people are asked what they are like, individuals usually tell a great variety of stories, by using traditional elements of narrative. As we said above, Bruner (1986; 1990) considers narrative both as a discourse mode and as a way of organizing experience. The story, as a whole, has

a meaning or gist. The intelligibility of narrative is based on verisimilitude: that is, its content must be taken as something that is likely to happen, something that “may happen to me”. Narratives, thus, provide an interpretation of events, rather than an explanation (Bruner, 1996). As Bruner himself states, a story involves an action carried out by an agent in a scenario where normative expectations have been breached. As we said before, any narrative involves a dual landscape: the landscape of action and the landscape of consciousness.

Thus, we assume that the self can be understood as a personal, self-making narrative that provides meaning to the individual’s life (Bruner, 2003). Put another way, we conceive self narratives as the tools that permit the existence of a (perceived as) continuous and “coherent” self. They are discursive constructions mediated, like any other narrative, by the semiotic tools the individuals must appropriate throughout their lives (Santamaría and Martínez, 2005). The appropriation of these semiotic tools is related to participation in different socio-cultural settings. This participation involves the appropriation of discourses both from other individuals (the “significant others”) and from social institutions (school, religion...).

The former implies that self-narratives are rooted in more or less implicit cultural models of what a person is and should be. These models provide the guidelines for self-making (Bruner, 2003). As Hermans (2003) states: “*Collective voices are not simply outside the self as an external community, but they are part of the individual self, and, at the same time, transcend it as a part of a broader historical and social community*” (p.105).

The above conception of the self has been developed in a series of studies conducted by the LAH. These studies have focused on two main topics:

- Studies about identity reconstruction in a cultural context. This includes issues such as the construction of lesbian identity in a cultural context (Sala, 2008; Sala and de la Mata, 2009), identity reconstruction and empowerment of women after suffering gender violence (Cala et al., 2011) or the process of acculturative integration of Moroccan women, conceived as a process of personal and community empowerment (García-Ramírez, de la Mata, Paloma and Hernández, 2011). In all these studies, the authors have applied a narrative analysis to reveal some of the discursive mechanisms and resources involved in narrative self-making (Bruner, 2003).
- Studies about the influence of formal schooling on self construction. More specifically, these studies have tried to examine how formal schooling, together with other cultural factors, such as culture of origin or generation influence the self, identity and autobiographical memory (de la Mata, Santamaría, Hansen, Ruiz and Ruiz, 2011; Ruiz, 2007; Santamaría, de la Mata,

Hansen and Ruiz, 2010; Santamaría, de la Mata and Ruiz, 2012; Contreras and Cubero, 2009). In the next section, we shall focus on some of these studies.

FORMAL EDUCATION, AUTOBIOGRAPHICAL MEMORY AND SELF

In the previous section we presented our approach to the self. This conception integrates the classical ideas from Historical-Cultural Psychology with other notions about the narrative construction of self in cultural settings. In this section we are going to present some studies developed by the LAH about the influence of sociocultural activities such as formal schooling on the development of a notion of self, characterized by an emphasis on autonomy and agency. As we shall discuss in the last section, this notion of self has many points in common with Olson's (1994) notion of literate mind and subjectivity.

We are going to start with a study that examined the role of formal schooling, culture of origin and generation in the notions of "border" and "resident on the border" of people living on the two sides of the Rio Grande border (between Tamaulipas, Mexico and Texas, US) (Contreras and Cubero, 2009). For this chapter, we focus on the results about the relations between formal schooling experience and the way the participants defined those notions.

The results of the study are completely coincident with (cross-) cultural research presented in Section 2. The classical studies by Luria (1976), Bruner (Bruner, Oliver & Greenfield, 1966 and Greenfield and Bruner, 1966), and more recent studies by Cole (Cole and Cigagas, 2010; Cole and Parker, 2011); Cubero (Cubero and de la Mata, 2001; Cubero et al., 2008); Medin, Unsworth and Hirschfeld, (2007) or Schlieman and Carraher (2001), as well as the study reported here, all found differences associated to the educational experience of the participants in the type of concepts elaborated and, particularly, in the verbal explanations of concepts.

In our case, scientific concepts (in Vygotsky's 1986 terminology), or theoretical argumentation (Scribner, 1977) or propositional thinking (Bruner, 1986; 1990) were mostly employed by the participants from the higher educational level when defining a resident on the border. They tended to speak about residents on the border in the following terms "*... she/he is from two places, form two cultures simultaneously*" or "*they are people that, yet administratively belonging to a country, they participate in services and activities of the other*".

This way of constructing *arguments*, in Bruner's (1996) terms, as the people in the higher educational level did, seems to reflect general formulations that can be applied to a broad set of situations, going beyond concrete and particular data, towards higher levels of abstraction. Moreover, in these responses we can observe some characteristics of propositional thinking or theoretical argumentation (Bruner, 1986; 1996; Scribner,

1977): the absence of references to the participants' life experiences. In other words, the form of argumentation of the participants with more school experience was not only characterized by the use of scientific concepts, but also for general utterances, by the intervention of generic characters. That corresponds to the model of "modern" citizen described by Olson (1994), with the predominance of an independent self-construal defined in an autonomous and non-relational way (Kagitçibasi, 1997; 2005; 2007).

In contrast, the responses of the participants from the intermediate educational level were very rich in information about their personal experiences. They included themselves, their relatives and acquaintances in these responses. For authors such as Scribner (1977) and Bruner (1986, 1990, 2003), inspired in Vygotsky's typology of concepts, these forms of definition represent another modality of thinking, that relies on different elements linked to everyday context. Here is an example of this type of response: "*Treatment, I treat people well they like me, aah... I am kind with people, I am not always fighting, I am like this*". "*...my relatives, my friends and I we are honest, with one foot here and the other in Brownsville*"

In this study, as well as in Luria's (1976), we can see the difficulties experienced by people with very little schooling experience when defining themselves as individuals, regardless of groups of reference (family, village ...). That is, people with a low level of education tended to define themselves by using functional or empirical argumentation (Scribner, 1977; Scribner and Cole, 1981) or empirical reasoning (Luria, 1976). They put more emphasis on a collective or interdependent self (Markus and Kitayama, 1991). Moreover, other studies have pointed out the difficulties these people experience when following task instructions and verbalizing the criteria applied to solve the tasks (Cole and Parker, 2011; Kitayama and Cohen, 2007; Matsumoto, 2001; 2006).

Another study, conducted by the authors of this chapter, explored the relationship between schooling experience and autobiographical memory (de la Mata and Santamaría, 2010; de la Mata, Santamaría, Hansen, Ruiz and Ruiz, 2011; Santamaría, de la Mata and Ruiz, 2012). A sample of Mexican participants from three different educational levels (literacy, basic level and university students) were asked to relate their earliest memory orally. We analyzed these memories to assess some of their characteristics (age at the earliest memory, emotionality and content) and issues related to the self and others (autonomous orientation, agency and social orientation). Results showed that the memories reported by the participants from the groups with more schooling experience, and especially university students, were, on the whole, earlier, with more emotional terms, more self-focused and specific and showing a higher level of individual agency than those reported by the participants with less schooling experience.

We also conducted a narrative analysis, inspired by Bruner's (1986) characterization of the double landscape in narrative and by Smorti's (2004) coding system that distinguished between action and mental state verb units. We added a new category,

metacognitive units, to account for sentences in which the participants reflected about the memory as a whole or about the very process of remembering. This type of unit was indicative of a way of thinking about the memory as a mental object in the subject's mind. In general, these analyses addressed the way in which the self, as narrator and as a character, was constructed in the memory and the importance of the self's mental states in the narrative. The results showed a relationship between schooling experience and the number and proportion of mental state verbs and metacognitive units in the memories. The narratives of the participants from the literacy level were mostly composed of action verb units. These units represented almost 70% of the total units. The other 30% included mental state verbs and metacognitive evaluations (24% of mental state and 7% of metacognitive units).

In the basic level, we observed a relative increase in the reference to mental states, which represented 33% of the total number of units and, conversely, a decrease in the proportion of action verb units (60% of the total number of units). These differences in action and mental state verbs units were not only relative, but also in absolute numbers. In the case of metacognitive units, however, there was no difference between the literacy and basic level, either in relative or absolute terms.

Finally, in the university students' level we observed an increase in both mental state verbs and metacognitive units. In this level, mental state verbs represented more than 40% of the total number of units, while action verb units constituted less than 50%. In absolute terms, however, the number of mental state verb units was significantly higher in the university than in the literacy level, but not significantly higher than in the basic level. The major difference between the university and the basic level was related to the use of metacognitive units, which represented 12% of the total number of units (6% in the basic level). To summarize, the memories narrated by the university students in our study were characterized by a predominance of the landscape of consciousness (Bruner, 1986), with many references to mental states and a high degree of reflexivity about the memory, with the presence of metacognitive evaluations of such memory. We can see that in the following excerpts.

"...It's a very pleasant memory. I do not know, I am not sure, but it makes me feel calmness and pleasure..."

In contrast, the memories narrated by the participants from the literacy level were characterized by a predominance of the landscape of action, with a smaller number of references to mental states and a limited number of metacognitive reflections about the memory. The following is an example of these memories.

"...I remembered when I was living on the ranch, with my grandma. She was very good at cooking and taught my eldest sister. Since I was the youngest, I sat in a chair so I could learn..."

The participants in the basic level were located in an intermediate area, as they showed a higher number of references to mental states but not an increase in metacognitive evaluation. The following is an example of the memories from this level.

"...I remember when my mom and my dad were living with us. My dad cooked for us, my mom so my mom had to stand for nothing. This is a very important memory in my life because we were living as a family and now it is not like this, I was about eight years old..."

Our study, thus, showed that schooling experience was associated to forms of autobiographical remembering that are considered to be characteristic of the cultures of independence. The participants with more schooling experience narrated first memories characterized by an earlier date (around three years of age), an emphasis on autonomy and references to mental states and metacognitive reflections and evaluations, when compared with the less schooled participants. This fact allows us to speculate about the role of formal education, as a socio-cultural practice (Scribner and Cole, 1981) or activity setting (Werstch, 1985) that promotes ways of remembering and, in general, of self-making (Bruner, 2003) that have been described in autobiographical memory research as associated to the cultures of independence (Leitchman, Wang and Pillemer, 2003; Wang, 2001; 2003; Keller, 2007). In the next section we shall develop these ideas from a theoretical point of view.

FORMAL SCHOOLING AND SELF: MODES OF BEING

As part of a book about Education from a Historical-Cultural perspective, our chapter focuses on how formal schooling, conceived as a sociocultural activity (Leont'ev, 1981; Wertsch, 1985), influences self construction. From our perspective, the analysis of this issue is a continuation of a classical problem in historical-Cultural psychology: the study of the relationship between formal schooling and cognitive processes (Luria, 1976; Cole and Scribner, 1974; Scriber and Cole, 1981). Different studies conducted at the LAH have focused on some classical topics in this research tradition (see, Cubero and Ramírez, 2005, for a comprehensive presentation of those studies).

Over the last ten years we have tried to extend the study of the relationship between formal schooling and mental processes to other fields and, in particular, to the construction of self in formal schooling contexts. In the previous sections we have

referred to some of these studies. As we said above, they provide evidence of the contribution of formal schooling activities to the development of a notion of self that is characterized by a high degree of autonomy, agency and reflection. It coincides, at least partially, with the independent model of self-construal (Markus and Kitayama, 1991). In this section we are going to explore some theoretical insights that may help us elaborate the links between formal schooling and the model of self construal. To do so, we will rely on two different, but complementary, approaches: the ideas of Olson about the role of literacy in the development of the “modern” mind and Greenfield’s theory about cultural pathways to development.

As we mentioned earlier, David Olson (1994) theorized about the relationship between literacy, conceived not just as a technology for reading and writing, but as a form of culture (“culture of literacy”, Brockmeier and Olson, 2002) and the modern concept of mind. According to Olson, the impact of literacy goes far beyond the transcription of oral language. Literacy has become a model for understanding language, the world and our mind. The key to this new concept is the ability to separate the word from the object it represents. Following Havelock (1976, in Olson, 1994), Olson claims that this separation not only allowed us to consider language, words, as objects of reflection, but also ideas, as the “units of meaning”, as objects of reflection. Consciousness of words made it possible to distinguish them from the ideas they express. Hence, literacy led to the notion of idea and mind became the repository of ideas (mental objects). In this sense, for Olson, the discovery of mind could be part of the legacy of writing.

This new concept of mind as the origin of mental objects had another implication: the emergence of self-consciousness. Since ideas come from mind, they presuppose a subject who is responsible for his/her mental states and actions. From this perspective, speech, action and mental states originate in mind and are under the control of the self. Hence, this is not only the modern notion of mind, but of subject, as well. For Olson, thus, the possibility of making language and ideas an object of reflection allowed by literacy gave rise to the development of the modern concept of mind, conceived as a repository of mental states (beliefs, desires, memories...) (The Cartesian “*res cogitans*”) and of the subject (credited with autonomy and agency).

From our perspective, the findings presented in Section Four may provide support for Olson’s ideas. The autobiographical memories of the participants from the university level may exemplify this modern notion of mind. They are self-focused, with a great level of agency and provide evidence of a reflexive subject who is split between two positions: as a protagonist of the narrative (at the time of the events narrated, the past), and as the narrator (at the time of the narration, the present). This interpretation of experience from the perspective of a narrative self is, according to Bruner (1990; Bruner and Weiser, in Olson, 1994), the origin of self-consciousness.

The second contribution to our theoretical approach to the relationship between formal schooling and self is the notion of cultural pathways to development (Kitayama, Duffy and Uchida, 2007; Greenfield, Keller, Fuligni and Maynard, 2003, Greenfield, 2009). This notion has been developed to integrate eco-cultural and sociohistorical approaches to development (Greenfield et al., 2003). It assumes that to explain human psychological development it is necessary to consider different levels of analysis (Greenfield, 2009). At the highest level, Greenfield locates the “sociocultural ecologies”. This term refers to cultural patterns of social relations. In Greenfield’s (2009) words:

The terms *Gemeinschaft* (community) and *Gesellschaft* (society), introduced by the German sociologist Tönnies in 1887 (1957), are my theoretical starting points for describing contrasting sociocultural ecologies. They are prototypes, each with its own particular characteristics, which are most visible at the extremes. Each prototypical environment has a corresponding developmental pathway (Abels et al., 2005; Keller, 2007). One pathway of development is well adapted to *Gesellschaft* environments, the other to *Gemeinschaft* environments (p. 402).

The sociocultural ecology of *Gemeinschaft* is defined by rural residence, subsistence economy (with a low technological level), relatively homogeneous groups and a low level of schooling, among other characteristics. The ecology of *Gesellschaft*, in contrast, is characterized by urban residence, trade and high-tech economy, heterogeneous groups, and a higher level of schooling.

The sociocultural ecologies are associated to predominant cultural values. On this level, Greenfield includes the notions of individualism and collectivism. They represent two types of adaptation to the two types of environment. So, while collectivist qualities, such as sharing among the extended family, are adapted to the daily practices of *Gemeinschaft* environments, such as living in a one-room house, individualistic values, such as the value of privacy, are adapted to the characteristics of *Gesellschaft* environments, such as houses with separate bedrooms.

Cultural values influence the organization of learning environments of human groups by promoting specific infant care practices. These practices include body contact, face-to-face-contact and object stimulation. While *Gemeinschaft* environments and collectivist values are associated to more body contact and less face-to-face-contact and object stimulation, the opposite is characteristic of *Gesellschaft* ecologies where individualistic values predominate.

The last level of analysis in this model is the level of psychological development. According to Greenfield, the different types of learning environments foster specific forms of psychological development. Kitayama, Duffy and Uchida (2007) use the expression

“modes of being” to refer to these models of psychological development. The *independent* mode of being is characterized by the centrality of the self, analytic cognition and action as influence. In contrast, the *interdependent* mode of being is characterized by the centrality of the others, a holistic form of cognition and action conceived as adjustment.

Greenfield (2009) proposes a multilevel causal model to account for the relationships between the different levels. Figure 1 represents the relationships between the different levels. As it shows, socio-demographic conditions (the sociocultural ecologies) determine learning environments directly and through the mediation of cultural values which, in turn, also have an influence on these environments. Finally, learning environments create the conditions for human psychological development.

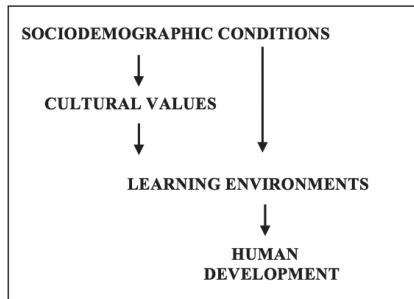


Figure 1: Multilevel causal model of human psychological development (from Greenfield, 2009, p. 403).

According to this model, the above factors combine to determine two predominant “developmental pathways”, two prototypical trajectories of development towards two prototypical modes of being (in other words, two models of self-construal): independence and interdependence. The developmental pathways involve different cultural ways of solving three universal tasks of human development: relationship formation, knowledge acquisition, and the balance between autonomy and relatedness at adolescence (Greenfield et al., 2003). The resolution of these tasks, different in different cultural groups, prefigures the course of psychological development in the future. Heidi Keller and her research group have provided extensive evidence for this ecocultural model and the consequences for psychological development (see Keller, 2007, for an extensive review). Their studies have focused on different fields, such as self-recognition and self-regulation in infancy, or autobiographical memory and theory of mind in childhood. In general, Keller and cols, have found consistent evidence that links independent and interdependent self-construal, together with the autonomous-related model of self (Kagitçibasi, 2005; 2007) with specific forms of psychological development. Among them we must mention forms of

autobiographical remembering characterized by self-focusing, autonomy and attention to the individual's preferences and mental states (Keller, 2007; Schroder et al., 2013).

Greenfield (2009) has postulated that movement of any ecological variable in a *Gesellschaft* direction shifts cultural values in an individualistic direction and developmental pathways toward independent social behavior and more abstract cognition (independent mode of being, Kitayama, Duffy and Uchida, 2007). Therefore, this model predicts that changes such as the extension of formal schooling would affect self-construal and human cognition and, hence, autobiographical memory. This would promote the "developmental pathway" to autonomy and thus, a cultural notion of self that enhances the individual's autonomy (Kagitçibasi, 2005, 2007; Keller, 2007; Greenfield, 2009) and forms of remembering that resemble those reported in cross-cultural research as characteristics of cultures of independence (Leitchman, Wang and Pillemer, 2003; de la Mata, Santamaría, Hansen, Ruiz & Ruiz, 2011; Fivush, 2011).

SOME FINAL REMARKS ABOUT FORMAL SCHOOLING AND SELF-CONSTRUAL

The above theoretical ideas may help us make sense of the findings of the studies reported in Section Four. The theory of the developmental pathways to independence may account for the tendency to define the self in terms of abstract attributes and the use of theoretical argumentation in cultural self-definition, as well as for the forms of autobiographical remembering that enhance autonomy and individual agency. At the same time, Olson's ideas about the emergence of the literate mind would provide conceptual tools to understand how formal schooling and literacy may allow the rise of a notion of mind populated by mental states and a notion of the subject who is self-conscious and responsible for his/her beliefs, memories, affects and actions.

Although promising, the above ideas need further development and clarification. From a historical-cultural perspective, the consideration of formal schooling as a mere sociodemographic variable represents a limitation of the theory. Beyond that and to overcome the well-known criticisms of the conceptualization of culture as an independent variable in cross-cultural research (see Rogoff, 1981; Cole, 1996 for a review of these arguments), it is necessary to analyze the activities of formal schooling and how these activities shape self-construal and autobiographical memory.

In a related vein, and consistent with the notion of self presented in Section 3, we must consider the situated nature of self-construal. Rather than considering a stable configuration of attributes, many authors have emphasized contextual variations in self-construal (Matsumoto, 1999). From this standpoint, the notion of situatedness may capture that complexity and provide new insights into the analyses of the relationship between self and culture. But what does situatedness as a characteristic of self-construal

designate? For us, situatedness is related to both between-culture and within-culture variations. On the one hand, we must not forget that cultures and societies are dynamic, typically moving towards more individualism (e.g. Greenfield, 2009); this seems to be, for instance, the case of Spain, moving away from a more collectivistic to a more individualistic country (de la Mata, Santamaría, Ruiz, and Hansen, 2014). On the other, situatedness may also imply within-individual variations, in the sense that any individual participates in diverse cultural practices (family, school, work...). If we assume that self-construal is situated in relation to culture, the fact that every individual participates in different activities in which the relative importance of issues concerned with autonomy/agency and relation/communion, power, and other basic human needs (Kagitçibasi, 2005) vary, leads us to assume that self-construal also vary across cultural.

In the field of autobiographical memory, for instance, Wang and Ross (2005) have demonstrated the possibility of “priming” collective or private self-construal. Besides the usual differences between Eastern and Western participants in self-construal and autobiographical memories, the authors demonstrated that priming different dimensions of self-construal influenced autobiographical memories of the participants in the directions predicted.

A study conducted by Antalíková, Hansen, Gulbrandsen, de la Mata and Santamaría (2011) with the participation of two of the authors of this chapter provided additional evidence of this situatedness. In this explorative study with young Norwegians and Slovaks, memories from school also seemed to represent less relatedness (i.e., contained fewer references to other people) than the memories from another two settings. This preliminary finding is consistent with the consideration of school as an activity setting associated to autonomous dimensions of self-construal and, from a more theoretical perspective, with the notion of the self as situated and context (i.e. activity) dependent. More studies are needed to delve further into the situated character of self-construal and how the activities involved in formal schooling may promote the emergence of a specific model of selfhood.

In drawing this Chapter to a close, we would like to stress the need for more detailed analysis of the links between formal schooling activities and the development of the independent model of self. Our theoretical framework predicts this, and the evidence presented in Section 4 seems to support these links. However, while this evidence is promising, it only represents a first step in the analysis of the relationship between formal education activities and autobiographical memory and self-construal. There is much ground still to be covered in that area. As we said earlier, a more detailed examination of the way school activities influence autobiographical memory and self is also needed. This highlights the need for research to establish what happens within schools (with a particular focus on discourse and interaction in the classroom).

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