

## Educational settings as interwoven socio-material orderings: an introduction

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**Summary** The special issue *Educational Settings as Interwoven Socio-Material Orderings* contributes to the advancement of context-oriented approaches to education, learning and development by combining thick descriptions and theory-dense analyses of concrete and eventually interrelated socio-material arrangements *in* and *across* a variety of educational and developmental contexts. We explore below two issues that seem to be central across the relevant literature as well as across the contributions by the authors of the special issue: (a) the notion of “individual” as a relevant unit of analysis and (b) the notion of “socio-material orderings” as another relevant analytical frame. The notions “individual” and “socio-material ordering” encompass all research participants and arrangements, including therefore the researchers and their everyday settings. The last part of our paper discusses the epistemological and methodological implications of this proposition.

**Keywords** Childhood · Culture · Ethnography · Case study · Materiality

According to Pressley and Roehrig (2003), who meta-analysed three of the most important Anglo-American handbooks of educational psychology<sup>1</sup> as well as a representative sample of articles published in the *Journal of Educational Psychology* in 2003, towards the end of the twentieth century, educational psychology moved beyond cognition per se towards complex cultural models of learning and development:

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To be certain, there were authors in the *Handbook [of educational psychology]* (Berliner and Calfee 1996) who argued that the field is now beyond cognition per se [...] They reasoned that because thinking and cognitive development occur in social and cultural contexts, they are better conceived as sociocultural rather than simply cognitive, because the cognitive perspective emphasizes processes within the individual learner rather than processes that occur between people. The many references to Vygotsky in the *Handbook* drove home that the sociocultural perspective should probably be conceived as a separate subfield of educational psychology (Pressley and Roehrig 2003, p. 335).

The meta-analysis also revealed a “turn” towards qualitative and ethnographic research methodology:

A potentially important development that is apparent in the educational psychology literature at the close of the 20th century is the use of qualitative methods by educational psychologists, most prominently, ethnographic approaches (Pressley and Roehrig 2003, p. 360).

Indeed, in the late twentieth century, terms such as “activity systems”, “groups”, “institutions” and “communities (of practice)” have been used widely to contextualise teaching, learning and developmental processes (cf. Kontopodis et al. 2011).

In a more recent turn, attention has been given also to the concrete socio-material arrangements in which teaching, learning and development occur. One could refer here to the practical arrangements and the arithmetic and algorithmic systems that support novice tailors and navigators in becoming experts of their respective practices in the seminal studies by Hutchins (1995) in Micronesia and by Lave (2011) in Liberia. Furthermore, one could refer to various arrangements specifically designed for school-based teaching and learning, such as the internet-based 3D environments and the classrooms with blackboards, textbooks, notebooks, pencils and rulers explored by Sørensen (2009) in her recent book and by Baucal (2012) in a recent study, or to those arrangements that are required for vocational training (Veillard 2015; Perret and Perret-Clermont 2011). The list can be expanded to include architecture and spatial and temporal orderings, which may entail rules, routines and patterns of use of the space as well as ruptures and emergence of novelty; to edibles, utensils, devices and their modes of use, legal documents and requirements; but also to intra-group positioning of concrete people and attribution of roles to them as well as to eventual conflicts between these and other positionings in other networks (cf. Kontopodis 2012; Iannaccone in print/2016; Moro 2011; Nohl and Wulf 2013; Schraube and Chimirri 2012; Schraube and Sørensen 2013).

Discussing questions of developmental transitions, Zittoun and Perret-Clermont (2009), argue for a social and cultural psychology of the “developing person” engaged in efforts to act in and to give meaning to “changing worlds, populated by objects and people”, while keeping her “sense of integrity and interiority” (p. 9–10). But, what exactly is the “developing person” and what are the “worlds populated by objects and people”? The special issue *Educational Settings as Interwoven Socio-Material Orderings* intends to contribute to the advancement of the above-mentioned scholarship by combining “thick” descriptions and “theory-dense” analyses (cf. Marcus 1998) of concrete and eventually interrelated socio-material orderings *in* and *across* a variety of educational and developmental settings. Although the employed concepts and empirical foci are very different in each article, we would like to explore below two issues that seem to be central across the various authors’ contributions: (a) the notion of “individual” as a relevant unit of analysis and (b) the notion of “socio-material orderings” as another relevant analytical frame.

## The notion of “individual” as a relevant unit of analysis

In educational and developmental research, what “individual” means is often taken for granted with no specific attention paid to the implicit understandings involved in the use of the term. The word “individual” seems to refer to its Latin etymology: an “unbreakable” unit, just as atoms used to be represented as the smallest piece of matter while the “collective” is often described as being more than the sum of the “individuals” involved without always making explicit how the collective and the individual are linked. “Individuals” are biological entities whose deaths can be described unit by unit yet this is not sufficient to consider individuals as isolated units at the psychological and social levels. Without directly addressing this question, the “individual” is considered in different terms in various methodological traditions:

When the term “individuals” is used to designate the interchangeable participants randomly allocated to an *experimental condition* in psychological or educational research, it is not the specificities of the person that are at the centre of the researchers’ attention, because they are looking for the abstract properties of individuals in general or the average effect of some intervention on learning and development in educational researches, i.e. exactly the opposite of an interest in their own historical and idiosyncratic “individuality”. In fact, in these lines of research, “individuals” used to be called “subjects” until the term “participant” was favoured to avoid the reference to an implicit power relation.<sup>2</sup> Yet, “subject” could also refer to what is meant in the expression “the subject of the verb” and hence help to consider subjects as active entities who act and think. But, this is precisely what most experimenters do not require from their subjects, who are asked to participate in the experimenter’s plan by following instructions and are not meant to actively reflect on these instructions and eventually act against them. We know that, in an experiment, children are likely to completely change the meaning regardless of the researchers’ intent when they interpret strict instructions according to external references that the researchers are not aware of (Muller Mirza et al. 2003). Classical experimental studies are about how subjects participate and not about why they accept to participate. And, usually no specific attention is paid to whether participation offers them—or not—an opportunity to expand access to their life interests.

In research based on interviews, individuals are rarely called “subjects” but “interviewees”, i.e. “interlocutors”. Strangely, this does not automatically mean that the researcher will understand their statements as illocutions offered to acknowledge the interviewer’s interests and questions and give her satisfaction. Access to the specific reality of the individuals is either left in their hands (in non-directive, open approaches) or is constrained (in closed interviews), a point that more recent and dialogical approaches are trying to clarify: for instance, when Kvale and Brinkmann (2009) describe the craft of qualitative research interviewing as that of “InterViews”, where knowledge is constructed in the inter-action between the interviewer and the interviewee.

In ethnographic research in psychology or education (Jessor et al. 1996), individuals are commonly referred to in the role in which they are positioned while they are being observed, e.g. student, patient, client, worker, farmers, but also teacher, medical doctor, nurse, researcher, etc. In this case, the individual is seen (probably unconsciously) through the “eyes” of the institution or the profession. Similarly, when individuals are referred to as child, daughter, parent, adult, etc., the focus (perhaps inadvertently) is on the social positions.

<sup>2</sup> As in the expression “the king and his subjects” with “subject” deriving directly from the Latin “subjectus” and “subgicere”, meaning submission (Gaulejac 2009).

How have the authors of this special issue handled these questions of the implicit understandings behind the notion of “individual” that no vocabulary choice can solve by itself? It is interesting to read the contributions with this question in mind and discover the multi-faceted and colourful images of the “individuals” that emerge from them. The first issue we become aware of is the multiplicity of terms used by the authors. In some instances, they call the individuals by their name or by fake names to keep their identity anonymous (e.g. Saburo, Dennis). In other instances, they refer to them as *individual, actor, subject, person, self, adult, child, boy, member, student, teacher, designer, participant, promoter, beneficiary*, etc. There is no single term used across this special issue. The terms used are directly connected to the theoretical framework of the researchers, who tend to use the same terms as the authors they quote. In some cases, the naming results from the desire to specify that the individual under focus be specifically looked at in his or her role, e.g. the child-as-student, the adult-as-parent or as-teacher or as-villager. This perspective of the authors of this special issue contrasts with what is often the case when researchers in psychology and learning talk about the child-in-general when their subjects are in fact behaving in specifically prescribed roles, e.g. the role of student (Breux and Perret-Clermont 2014), hence displaying just as much of the characteristics of their (low) social position and institutional role as those of their developmental age.

But, more interesting than the terms used, is the understanding of the individual that the authors of this special issue have developed via their very detailed case studies. Hiroaki Ishiguro (this issue) is involved in a longitudinal, ethnographic study of how a very young child (Saburo) learns to take part in mealtimes in a Japanese day care centre. Ishiguro explores the development of a Japanese infant’s interaction with his surroundings around the meal as a “learning problem”—in the author’s terms—between the ages of 6 and 19 months. He analyses the tri-dimensional relationship among the intentional arrangement of an artificial physical environment organised to constrain his actions, the nursery teacher’s care and intervention strategies to teach eating, and the infant’s will to eat. In this study, individuals are described as children and as adults. Ishiguro describes the child as “bound by (his) own biological constraints and other’s social expectations” but active and with a will to eat, with “incentive to be like (his) peers who can use the utensils”: for instance, Saburo pays attention, grasps the piece of food with his finger, tries to use the spoon at his disposal, proceeds with trial and error, and later on waits for the proper signal to be given to the whole group before starting to eat. Ishiguro infers that the child can “regulate himself with the scripted knowledge of the event” and “situate his eating behaviour in a nursery institutional event”; he has a growing capacity to discover his environment and establish a relation to it; moreover, “children cannot directly perceive their communities’ cultural beliefs but they can know them by experiencing how the physical conditions are constrained by environmental arrangements”.

Ishiguro describes as well the caring role of the individual who is the child’s main partner in this event, i.e. the nursery teacher: relating to Saburo, providing support, re-arranging food and tools, guiding him in such a manner that in spite of being “dependent on care” the child can “feel that (he) is respected as agent” and may think that “he took a highly active role in eating his food almost by himself” (which resembles the contribution of Kristensen and Mørck (this issue), which we discuss below). In Ishiguro’s study, these two individuals, the adult and the child, are also depicted as “collaborative problem solvers” at mealtime in an institution in which solving this “learning problem” in a nutritionally and socially adequate way is a mandate of policy makers and other authorities (parents, co-teachers, etc.) who are eager to see the child appropriate the eating customs of Japanese society.

Nandita Chaudhary and Punya Pillai (this issue) revise three studies with children from rural and urban settings in India with regard to their methodological choices and implicit epistemological presuppositions. They provide evidence to discuss the importance of adaptation to the context and shared understanding and the importance of attitudes, knowledge and habits gained by witnessing and participating in everyday cultural practices. As a result, individuals cannot be understood out of context. They make the point that, because it is inspired by an ideology of individualism, conventional psychological research tends to consider individuals as isolated entities and to focus exclusively on their intrapersonal processes. Because of this, the role of the familiar cultural setting with its shared knowledge and collective beliefs is avoided, as is interpersonal perspective taking. Chaudhary and Pillai's suggestion is to explore individual agency by situating the self in research encounters that mobilise subjective but also inter-subjective and inter-objective processes.

Interest for the individual's subjectivity should not imply—here they quote Menon (2003, p. 431)—that “the individual exists prior to society and enters into a voluntary social contract with others in order to secure his self-interest”. Here, they agree with Hiroaki's describing the cooperation between the nursery teacher and the young child: “the social presents itself to the baby at the outset only mediated through the primary caregivers, and not as some sort of collective manifestation of cultural reality”; “the exceptionality of each person's dispositions and experiences makes each encounter uniquely divergent for any two people”.

By “subjectivity”, Chaudhary and Pillai refer to the individual as a person with an intramental activity resulting in an internal reality, i.e. with his or her personal understanding of self and the world. This does not mean that it is sufficient to elicit the individual's opinions or thoughts to access this reality: the person “may not be practised at discussing ‘personal’ opinion with outsiders in (the) manner” expected by researchers who come in the milieu for the sake of their inquiry. Chaudhary and Pillai describe individuals as “curious about [a] researcher” and in need of placing him or her within their frame. For different reasons, but in a similar way, we will see later that Muller Mirza and Perret-Clermont also report how the subjects of their research were in need of understanding their interlocutor's goals to further maintain a cooperative relationship.

In their paper, Kristensen and Mørck (this issue) draw on a social practice research study of a 7-year-old boy (Dennis) diagnosed with ADHD who was medicated against his will, and address some contradictions, dilemmas and struggles in a Danish primary school around this case. The authors report how new “practice recognitions” can allow moving beyond practices that generate marginalisation. They give descriptions of these practical movements that can create a space for insertion and they draw theoretical lessons from this experience: self-understanding is in fact a “social self-understanding”, the individual having a great need to be recognized as a human within his peer group and in the face of caretakers; individuals have their life interests and own will, and they want to act in line with them. They have reasons for their actions, and in front of contradictory life conditions, they have a productive need for understanding and for access to expanded agency. Kristensen and Mørck describe how Dennis tries to control his own behaviour and wants to be recognized as a responsible agent; they also show that Dennis needs to be given opportunities to know how to behave and what counts as good (or bad) for inclusion in the group and participation in the collective expansion of life conditions. To get into the “process of becoming-a-person-among-others”, others have to listen to him; he has to become a person with a legitimate position who is offered possibilities to negotiate with others the meanings in the community.

This negotiation of meanings is part of the goals of community school meetings (*asambleas*) but also of the unpaid collective work named *tequio*, and of the common celebrations (*fiestas comunales*) in the Mexican rural villages studied by Ruth Paradise and Adriana Robles (this issue), who investigate the interactions of indigenous Mexican Mazahua and Mestizo adults and children within and across several settings that are part of their everyday community life. These settings include family homes, community contexts such as the marketplace, as well as the local primary school, where some of the adults are teachers and the children are students. By means of an ethnographic description of everyday life in two schools and an in-depth analysis of the implicit specific meanings shared by the participants in the above-mentioned settings, the authors show how adults and children, together with school authorities, transform what could have been an ex-colonial external school practice into locally culturally relevant schooling experiences for their communities: they introduce a collective orientation and promote collaborative solidarity that does not restrain (in fact supports) the students complete engagement in the classwork and their individual learning.

Paradise and Robles' description reveals individual children who are wholeheartedly involved in their schoolwork without extrinsic motivation such as teacher's praise or admonition. These students are completing the learning tasks by themselves, taking responsibility for them. The children with greater competence who are aware of this direct their support to the others. All take initiative and demonstrate some autonomy. Simultaneously, they are also keen to maintain constant verbal and physical interaction with their schoolmates, consult each other frequently, and make commentaries without expecting direct responses. Talking and sharing physical closeness and thoughts seem to bring support and to allow for feeling part of the same social entity.

Nathalie Muller Mirza and Anne-Nelly Perret-Clermont (this issue) look at a farmers training setting from an actor-oriented perspective, focussing their attention on some of the discrepancies observed during the implementation of this forestry training program by a Swiss NGO in Madagascar. They consider these not as mistakes or misunderstandings but as "windows" on the processes of change and learning both on the farmers' side and on that of the program promoters; they are also seen as opportunities for the researchers to reflect on the goals of their investigation, their implicit theoretical premises concerning learning, and the power dynamics embedded in the history of the relationships between the Swiss and the Malagasy. Individuals are depicted as having status, roles but also viewpoints, knowledge, know-how, wishes and intentions. They make efforts to understand and resolve difficulties, interpret the situation by making reference to other systems of activities in which they have been previously involved, ask questions, make decisions and develop strategies. They have fears and memories. They take part in discussions and in doing so conform to the manners and rules of their community. They contribute to the creation and re-creation of the social settings in which they are engaged and promote their own individual and collective goals.

Of course, the perspectives on the "individual" outlined in the special issue are not exclusive. We did not deal for example with *memory and identity*—which could be a topic on its own and to which we devoted another special issue some time ago (Kontopodis and Matera 2010). Furthermore, we have not explored learning and development with regard to youth activism and processes of negotiation between local communities, state institutions and global stakeholders (cf. Kontopodis 2013; Foerste and Kontopodis 2012). Even so, all the authors make the reader aware of the active role of individuals: individuals experience and interpret the changes in their relations to each other and in their communities but they are also active in changing them and negotiating their meanings. They "conduct their everyday life"

(cf. Schraube and Højholt 2016), which implies experiencing ideologies, social changes and conflicting demands but also arranging conditions so as to expand beyond these contradictions. Routines create spaces in which meanings are shared (as in Ishiguro's description of what makes it possible for the child to interpret what is going on) but individuals also transgress or modify or renegotiate these routines when they do not help them manage their needs; objects, relations, representations of self and others, action reasons, practices and meanings then get re-arranged.

We suggest that this process of re-arrangement can be called *learning*, as Piaget (1971) and Piaget and Inhelder (1969) did when they described learning as an adaptive process essential not only for biological but also for psychological life to exist. It consists of assimilation processes whereby the individual appropriates into her existing structures and functioning new elements coming from the outside environment; and, it consists also of accommodation processes that modify structures and functioning in order to grasp or understand these new elements. Learning is the result of a two-sided adaptive movement made of assimilation and accommodation, i.e., of conservation and change. The individual learns by imitating and reproducing gestures and thoughts about socio-material and semiotic arrangements but also by adapting them or even by inventing new arrangements. Important lessons learned from the above-mentioned case studies are (1) that the real individual (as opposed to an abstract concept of "individual") is not an isolated entity developing out of social reality and (2) that learning is the fruit of interwoven lives in situated spatial and temporal moments that allow or not for the transformation to be formative. We will now turn to an examination of the ways in which the authors of this special issue have dealt with this weaving of individual and collective transformations of arrangements.

### **Socio-material orderings and inter-network relations**

As has become evident, the above-mentioned *individuals* are not isolated from dynamic social and material networks—it is exactly the opposite:

Nandita Chaudhary and Punya Pillai (this issue) situate the research questions, methodology and findings of their researches with children in complex "inter-individual interactions" and "shared realities"—in the authors' terms. For example, they explain how in rural settings keeping a child stationary seemed to be a constant challenge since it was much more exciting for children to run off to play with others in the street than to participate in research activities. In another example, from a research project on pretend play, urban children engaged in much more play with dolls, which were given to them by the researchers, while rural children were a bit wary of using them to play as they looked scary and unfamiliar to them.

Saburo, the Japanese child in the paper by Hiroaki Ishiguro (this issue), is an "agent" within an "environment"—in the author's terms—that constrains certain behaviours as well as enables others while at the same time, it is constantly modified by Saburo's actions. Eating with hands or trying to use a spoon is a meaningful action in this setting, which elicits certain reactions from the "environment", such as the nursery teachers' guidance, help and appreciation. In the case of Dennis, the Danish pupil in the paper by Karen-Lis Kristensen and Line Lerche Mørck (this issue), words such as "marginalized", "doing stupid things", "recognized" make sense only when Dennis is seen as a "subject among the collective subject of his fellow students and teachers"—in the authors' terms. Yet, these subject relations are complex, dynamic and power-laden—which may lead even

into extreme situations like Dennis's refusing to put the ADHD medication in his mouth and lying flat on the floor, tensing his whole body.

As we learn from the article by Nathalie Muller Mirza and Anne-Nelly Perret-Clermont (this issue), such "critical incidents" are *windows* that allow us to see the nature of the relationships that have been established between the actors (farmers and Swiss cooperation agents) in the context of the training program in Madagascar, to which the article refers. In play here—for example when an old farmer asks the Swiss agents "Are you going to spoil my lands?"—are not just single actors but the institutions, realities and local and global histories which they are interwoven with and which are—so to say—*heard* when they *speak*.

A close look at everyday life in two rural schools serving Mazahua indigenous communities in the State of Mexico, about 65 miles northwest of Mexico City, in the paper by Ruth Paradise and Adriana Robles (this issue), reveals also how present action can only be understood within a long interplay of local and global histories: the regular and influential presence of parents and other community members of all ages in many school activities accounts for *comunalidad*, a broader and collective orientation to social life, which undermines an emphasis on individualism and hierarchical authority commonly associated with schooling in North-Western societies (and wherever else their schooling model has powerfully been exported).

These comprehensive case studies and thorough analyses do not only place the "individual" within broader "environments", "shared realities", "relations", "activity settings", "groups" and "communities"—which has been much explored in the relevant literature—they pay attention to "critical incidents" and the details of people's on-going interactions within very concrete socio-material arrangements, such as spoons and chopsticks, Ritalin pills, dolls, reports, houses, school buildings and trees and the intertwined semiotic systems, routines, customs and patterns of use. While doing that, the authors place the individuals in the intersection(s) and the meeting point(s) of different networks, interwoven temporalities and heterogeneous spheres of activity.

The case studies explore how peer groups of children, local family networks, community histories, research and intervention agencies, educational and medical practitioners, etc. come together to maintain certain continuity while at the same time elicit some change not just *in* or *with regard to* the individual but *with regard to the broader set of socio-material relations* in which the individual is involved in. Complex dynamics of continuity and change are at play here, which may comprise long local and global cultural histories as well as entail friction, asymmetries and power relations. The "individuals" (including the researchers) are actively—even if not always consciously—contributing to these complex dynamics of continuity and change.

The term *socio-material orderings*—in the tradition established by Law, Latour, Hassard, Mol and others (Law and Hassard 1999; Latour 2005)—seems to be of particular use in this frame: it refers to semiotic as well as to material relations and to the interrelations between materiality and sociality (Law and Mol 1995). *Orderings* or attempts at *ordering*, as Law explains, is a term that emphasises the dynamic, messy and open-ended character of everydayness as well as the co-existence and potential conjunction of heterogeneous orderings. Such an approach is opposed to the proposition that culture, history, learning or development can be understood in terms of one single order. Furthermore, socio-material orderings are not just "out-there", as John Law very well explains, but researchers and research tools are considered components of the socio-material orderings under study, as well (Law 2004).

Accounting for individual agency while at the same time exploring the interrelations between different networks and spheres of activity is an issue that recently gained attention in learning and developmental theory. Terms such as "knotworking", "boundary crossing" and

“relational agency” have been introduced to conceptualise the sharing of expertise and the collaboration in pursuit of a task that is organised among different activity systems, especially in regard to multi-professional practices (Engeström 2008; Daniels et al. 2009; Bowker 2015). This special issue intends to contribute to the advancement of this scholarship by shifting the focus of analysis from a unique centration on professionals to the mutual interdependency between them and their clients, students or other targets as mediated and enacted through and within a variety of material and semiotic orderings.

## **Exploring socio-material orderings of educational and developmental psychological research**

The complexity that socio-material orderings entail implies a challenge for defining and understanding what teaching, learning and development may be. As becomes evident in the various articles of the special issue, “teaching”, “learning” and “development” take place on various levels and across a wide range of interrelated socio-material orderings—including research, intervention and evaluation networks. Negotiations, frictions and contradictions occurring at the meeting points of diverse and heterogeneous socio-material orderings can also generate unpredictable and novel learning and developmental outcomes that go beyond any initially defined research/intervention/learning objectives. In this frame, dyadic oppositions, such as acquisition vs. participation, formal learning vs. informal learning, effective vs. ineffective teaching and learning, that usually presume the positioning of researchers “out-there” and of learners “in-here” usually reduce too quickly the complexity that this special issue aims to address. Indeed, the above-mentioned propositions have significant epistemological and methodological consequences for the ways we understand educational and developmental psychological research.

Researchers are not neutral entities external to the research procedure looking at the results from the balcony of the world as if their presence had no impact on the data. On the contrary, researchers are individuals with all the characteristics mentioned above: problem solvers and members of communities with life interests and in need of recognition. They may be sharing realities and collaborating with a few people and not with others, intervening (or not) in potentially conflictual arenas, etc. They are situated in socio-material arrangements, interwoven in local and global histories, enabled as well as bound by semiotic, material, spatial and temporal orderings that shape their roles and interactions with the research participants, as well as their analyses, writings and the dissemination of results. Even when they do not prescribe “solutions” drawn from their research conclusions, they put in circulation artefacts (terminologies, tests, attitudes, practices, etc.) that affect the socio-material orderings in which they are involved and intertwined. Researchers therefore contribute (not always consciously) to the complex dynamics of continuity and change of the socio-material orderings, which they explore. Furthermore, they often mediate the interaction between a variety of localities, communities or institutions, thus shaping interrelations between distinctive and eventually heterogeneous socio-material arrangements.

Situated in heterogeneous socio-material arrangements, criss-crossing distinctive academic fields and theoretical landscapes and bringing together case studies from locations as diverse as Mexico, Denmark, Madagascar, Switzerland, Japan and India, the contributions to this special issue can hopefully be read as inviting attempts at addressing the complexity of understanding what is at stake in a variety of educational and developmental settings. Readers might feel

inspired to revisit, in the light of these studies, not only what is meant by “educational” setting but also by “learning” and “development”—and we sincerely hope to get their feedback on these points!

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Social and cultural psychology of development. Learning in school and vocational contexts. Argumentation and thinking. Psychology of communication. Design and training policies.

*Most relevant publications in the field of Psychology of Education:*

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Socio-material & socio-cultural approaches to human development. Educational and social inequalities. Global education. Teaching and learning with digital media.

*Most relevant publications in the field of Psychology of Education:*

- Kontopodis, Michalis (hardcover: 2012, paperback: 2014). *Neoliberalism, Pedagogy and Human Development: Exploring Time, Mediation and Collectivity in Contemporary Schools*. London and New York: Routledge.
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