

## Why Operativity-in-Context Is Not Quite a Sociocultural Model

Commentary on Psaltis, Duveen, and Perret-Clermont

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### Key Words

Intellectual development · Operativity in context · Piaget · Social context

Understanding cognitive development requires building up an approach that can effectively integrate constructivist and sociocultural perspectives, and this paper [Psaltis, Duveen, & Perret-Clermont, this issue] offers a useful contribution to that effort from a neo-Piagetian direction. Its key contribution lies in its overview and assessment of a line of empirical work situating children's cognitive development in social-relational context that has been carried out over the last several decades by a group of 'social Genevans' (e.g., Doise, Mugny, Perret-Clermont, and others) and their Anglo-Cypriot associates (including Duveen and Psaltis). This program of research followed up theoretical initiatives that Piaget himself had introduced, particularly in such early works as *The Moral Judgment of the Child* [1932/1965], but then failed to pursue in the great bulk of his substantive research after 1932. In the process, as the authors argue convincingly, this research program has not only vindicated the basic thrust of the social-relational approach proposed by Piaget, but also refined, deepened and extended it. In addition to specifying more precisely certain features of children's peer interaction most likely to promote cognitive advances, this research has addressed the institutional and cultural dimensions of social context in ways that go beyond Piaget's own model.

The authors' analytical reconstruction of three phases or 'generations' (pp. 299–308) of this neo-Piagetian research program is thus the solid core of their paper. (Another cogent account of this social Genevan research program, which usefully complements the one presented in the paper by Psaltis et al. [this issue], is in Duveen & Psaltis, 2008.) We agree that this ongoing body of work has significant and promising implications, theoretical as well as empirical. On the other hand, we find it necessary

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to add two (interconnected) reservations. First, when the authors go beyond what we have just described as the core of their paper, they make some larger theoretical claims that we find less convincing and at times even perplexing. Second, although this social Genevan approach does take some genuine steps in the direction of a more socioculturally informed analysis of development, its picture of the *cultural* dimensions of social context remains too narrow and underdeveloped. Thus, in our view, the authors' treatment of *operativity-in-context* does not really go very far toward integrating constructivist and sociocultural perspectives. Nevertheless, both the strengths and the limitations of their analysis are instructive and stimulating.

### **Putting Development in Social-Relational Context: Piaget and Beyond**

We should begin by recognizing what is valuable and promising about this paper and, more broadly, about the neo-Piagetian perspective it champions. As the authors emphasize, this social Genevan research program builds on a powerful but underdeveloped social-psychological potential inherent in Piaget's own work, which was based in turn on Piaget's critical appropriation and social-relational rethinking of Durkheim's sociology.

#### *Piaget's Sociological Imagination – and Its Limits*

Piaget's developmental theory has mostly been seen, by followers and critics alike, as an essentially asocial constructivism – centered, as Bruner [1985] once put it, on 'the paradigm of a lone organism pitted against nature' (p. 25). However, in significant respects this standard picture is misleading. At the level of general metatheoretical pronouncements, Piaget consistently asserted that 'human knowledge is essentially collective, and social life constitutes an essential factor in the creation and growth of knowledge, both pre-scientific and scientific' [Piaget, 1950/1995a, p. 30]. (Even a casual perusal of the essays collected in Piaget, 1965/1995f is sufficient to demonstrate the continuity of such formulations throughout his career.)

Furthermore, in his early work [most notably 1928/1995b and 1932/1965] Piaget offered a concrete analytical framework for understanding the formative role of social context in development. The heart of this sociological dimension in Piaget's theory, as the authors correctly indicate, lies in his ideal-typical contrast between two types of relationships or interactions: those based on inequality, authority, unilateral respect and constraint, and those based on equality, mutual respect, reciprocity and cooperation. These types of relationships have sharply different implications for both cognitive and moral development, which Piaget saw as closely intertwined. Relationships of cooperation, reciprocity and discussion among equals form an essential context for the development of moral autonomy and rational thought [e.g., Piaget, 1932/1965, pp. 341–371, 395–404; 1928/1995b, pp. 200, 210; 1960/1995e]. Relationships of authority, inequality and unilateral respect promote top-down *social transmission* and passive compliance rather than genuine development.

However, two factors prevent us from simply accepting the idea that Piaget's developmental psychology has an adequate social dimension. First, in practice the massive corpus of Piaget's substantive research after 1932 largely ignored this 'essen-

tial' social context of development. (Whether and to what extent this absence was linked to a theoretical shift accompanying Piaget's focus on *grouping* structures that apply interchangeably to thought, action and interaction, as the authors suggest, is a matter we will pass over here.) Not only did Piaget fail to apply the analytical framework just outlined in any sustained or systematic way, he also never had occasion to further develop, refine and operationalize the basic contrast he had proposed between different forms of social relationships or interactions.

Second, even at its strongest and most sophisticated, Piaget's theoretical conception of social context remains unsatisfactory and misleading. We will formulate this problem largely in our own terms [along lines elaborated more fully in Nicolopoulou & Weintraub, 1998] but in a way that we think accords essentially with the authors' perspective.

With respect to how one ought to understand the relationship between the individual and society, Piaget consistently and explicitly rejected any approach based on 'atomistic individualism' [e.g., Piaget, 1945/1995d, p. 135] – which is effectively the default position of most psychologists, Piagetian or otherwise. Society cannot be reduced to a simple aggregation of individuals and their activities, and to imagine that individual development could emerge from the solitary confrontation between the individual and physical reality, independent of the formative role of social context, is fundamentally erroneous and scientifically naïve [e.g., 1950/1995a, pp. 39–40; 1933/1995c, pp. 221 ff; 1945/1995d, pp. 135–136, 145–146]. At the same time, in reaction against what he considered Durkheim's overly global and monolithic conception of society, Piaget called for a more analytic, relational, and differentiated model of social context [1945/1995d, pp. 135–136; see also 1928/1995b, p. 188; 1950/1995a, pp. 40–41; 1968/1971, pp. 97–98; in translating Piaget's terms, we have used *relational* instead of *relativist*]. Rather than being conceived either as a unitary 'thing' or as a sum of individuals, society should be seen as consisting fundamentally of *systems of relationships* that, in various ways, shape and transform the individuals who participate in them [1945/1995d; 1950/1995a]. The task is to reconstruct the patterns of relationships or interactions into which social wholes can be articulated and to differentiate the effects of different types or forms of relationship.

Up to a point, this approach is both sophisticated and illuminating. The problem is that Piaget tended to *reduce* the social context of development to relationships or interactions and thus to neglect the larger sociocultural matrix within which interactions take place and which structures their nature, meaning and impact. To put it another way (again reminding the reader that this conceptual vocabulary is not identical to that of the authors), a satisfactory understanding of thought, action and development requires grasping the interplay between not 2 but 3 analytical levels: the individual, the relational or interactional, and the collective. Two examples of such irreducibly collective phenomena are especially pertinent here. At first glance, particular relationships or interactions (which, of course, are not precisely the same things) may appear to be purely interpersonal experiences. However, they are necessarily embedded in and patterned by *institutional structures*, both small- and large-scale, within which they need to be situated for purposes of analysis. Furthermore, both individual and social life are structured and permeated by systems of what Durkheim and Piaget termed *collective representations* – which Psaltis, Duveen and Perret-Clermont, apparently following Doise [1986], generally call 'social representations' [p. 304]. Systems of relationships can be disentangled from systems of collec-

tive representations only analytically, so one cannot really gain an adequate understanding of the first in isolation from the second. A genuinely *cultural* psychology is, above all, one that can effectively address the formative and constitutive role of collective representations. On the other hand, an approach that fails to take systematic account of institutional structures and collective representations runs the risk of merely replacing individual reductionism with interactional reductionism (despite some intermittent formulations by Piaget that might be cited to the contrary).

### *Opening Up the 'Black Box' of Interaction*

One of the most theoretically interesting and significant features of the social Genevan research program, as explained in the article under discussion [Psaltis et al., this issue], is precisely its effort to go beyond Piaget's interactional reductionism by systematically addressing the role of institutions and collective representations in defining, structuring and giving meaning to different types of interaction in ways that influence their developmental consequences. We would argue that this effort has been only partly successful, but what has been accomplished appears substantial.

The central strategy pursued by this research program – informed by a combination of Piaget's own social-psychological Road Not Taken and elements drawn from other theoretical sources – has been to build a systematic social-contextual dimension into some classic Piagetian tasks used to assess the development of children's cognitive skills and moral reasoning. (It is hard to imagine a more hard-core Piagetian cognitive task than the conservation of liquid problem discussed in this article.) The main focus has been on setting up situations of *sociocognitive conflict* – that is, explicit disagreement – between age peers. When this leads to logical argument and genuine debate about a common problem, rather than one-way assertion followed by compliance, it falls into the Piagetian category of cooperation. That is, 2 or 3 children can cooperate in solving a shared problem. Findings from the first phase of this research confirmed that cooperative problem solving between peers tended to yield deeper and more substantial cognitive advances than individual problem solving. More generally, these and later findings appeared to vindicate Piaget's central insight that different kinds of relationships tend to give rise to different sorts of interactions, which in turn promote different developmental consequences.

It became clear, as the authors very nicely put it, that further progress required a sustained effort to 'open the black box of social interaction' [Psaltis et al., this issue, p. 304] as it appeared in Piaget's own seminal formulations. The result has been a long-term effort, often ingenious both conceptually and operationally, to specify more precisely and in greater depth different types of relationship and the different forms of interaction they encourage and enable, and to consider more carefully *how* different forms of interaction and conversation can promote different cognitive-developmental effects. There is no need to recapitulate the whole story laid out by the authors, but some of its theoretical implications are worth highlighting. As we suggested earlier, when Piaget contrasted different types of relationship, he often talked as though the meanings of relationships were self-evident, in a manner independent of cultural definition or interpretation. However, such a position would be socioculturally naïve. Among other factors, participants' understandings of an interaction

and their responses to it will always be shaped by ‘the cultural and institutional *frame* in which a given interaction takes place: the rules, roles and expectations on which people draw so as to guide their conduct as the interaction unfolds’ [Psaltis et al., p. 303]. Furthermore, although Piaget’s basic contrast between egalitarian and nonegalitarian relationships is a useful starting point, in reality the forms and dimensions of asymmetry in relationships are multiple and complex – not all of them, in particular, are reducible to age differences or age-related authority. Moreover, once again, asymmetric relational configurations are always shaped to a considerable degree by culturally defined social identities, role expectations and so on – that is, by the ‘social representations of a community’ [p. 304].

Not only must relational inequality or asymmetry be understood as complex and socioculturally shaped, but relational equality must as well. A very intriguing twist in the most recent work reported on by the authors is the finding that the forms of conversation between age peers most likely to promote cognitive development are most encouraged not by simple equality but, so to speak, by a form of complex equality. That is, the developmentally optimal forms of argumentation are most likely to occur when two dimensions of relational asymmetry – in this case, status asymmetry linked to gender and epistemic asymmetry measured by pretests – are in tension rather than aligned.

In short, this neo-Piagetian research program has not only fleshed out, deepened and refined the analytical framework proposed by Piaget, but in the process it has also incorporated a genuinely cultural element in its picture of the social context of development.

### **Some Reservations, Limitations and Further Challenges**

Now let us step back to consider the larger implications of this account. Does the approach presented in this article genuinely manage to integrate Piagetian and sociocultural perspectives (while preserving the strengths of both)? Not quite. In the end, this picture of the social context of development remains, however enriched, fundamentally social-relational rather than fully sociocultural. The cultural element in this analysis is *developmentally* significant only indirectly, through its role in shaping and configuring patterns of social relationships. The key point about different forms of social relationships is that they are more or less effective in facilitating the construction of essentially invariant cognitive structures.

#### *What Is Being Claimed?*

Actually, it is not fully clear how ambitious a claim the authors are making in terms of reconciling Piagetian and sociocultural perspectives. The first few pages of the article offer a somewhat unfocused discussion that takes off from the widespread perception (or accusation) that Piaget’s theory is rooted in a *universal* model of cognitive-developmental stages. The authors themselves appear to endorse this (rather plausible) interpretation when they add that ‘Piaget ... himself was reluctant to concede that cultural or socioeconomic influences could do more than accelerate or retard progress through [a universal] sequence of stages’ [p. 292]. Then, after run-

ning through several possible complications with this picture, they quote a formulation by Chapman suggesting that a genuinely developmental theory could be compatible with the possibility of 'qualitatively different developmental pathways' [quoted on p. 292].

Do the authors mean to associate themselves with this kind of argument? If so, that would be perplexing, since there is really nothing in the rest of the paper that would clarify, flesh out, or support the notion of 'qualitatively different developmental pathways'. Instead, as we just noted, the research program they discuss has focused precisely on the attainment of certain universally valid cognitive structures and explored how different social contexts can 'accelerate or retard' this attainment. If, as seems more likely, Chapman's suggestion was introduced only in order to be dropped, then it is hard to be certain what point this introductory discussion was intended to convey. Hypothetically, one could argue that the attainment of certain crucial cognitive structures is universally necessary and significant, but that there are also other important domains whose content and directions are more socioculturally variable. However, the authors did not make an argument along those lines either. Their fundamental problematic would appear to accord with the one they began by attributing to Piaget, centered on a concern with more or less successful progress through an essentially universal developmental pathway. Human thought and its development do take place in, and depend upon, social contexts. However, what role do culture and collective representations play in that process?

#### *Interiorization versus Internalization = Piaget versus Vygotsky?*

Some of the answers are suggested by the authors' discussion contrasting *internalization* with *interiorization*, which slides into a brief critical assessment of 'internalization in Vygotsky'. The details of that discussion are not all crystal-clear (at least, not to us), but the main point of this contrast seems to be the distinction between the passive absorption of relatively superficial information or attitudes in ways that leave the underlying structures of thinking unchanged (internalization) and the genuine transformation of conceptual structures as part of *cognitive development* (interiorization). In itself, drawing that distinction is useful and unobjectionable.

The discussion becomes more problematic when the authors seek to illustrate some implications of this contrast with a reference to Vygotsky. We must confess that we find their account of Vygotsky's approach peculiarly oversimplified, misleading, and unhelpful. It relies on one oddly chosen example, taken largely out of context, and the discussion really conveys very little of the larger theoretical framework informing Vygotsky's sociocultural analysis of development. Furthermore, given the way that the authors contrasted internalization with interiorization, to speak of 'internalization in Vygotsky' suggests that what Vygotsky had in mind was a process in which an adult (or expert) is engaged in a one-way transmission of information to a child (or novice). However, such a picture is quite misleading. Vygotsky was interested, above all, in the ways that sociocultural processes can foster *conceptual* changes and *cognitive* advances. Nor does the child (or novice) play a purely passive role in this process. On the contrary, Vygotsky saw the developing child as an active agent – in ways that are clearly brought out, for example, in his analysis of the interplay between spontaneous and scientific concepts or his treatment of the zone of



proximal development. Granted, Vygotsky's developmental theory was never spelled out with the massive detail and complexity of Piaget's, and of course Vygotsky's analysis is open to a range of legitimate criticisms. However, such criticisms would be more useful and illuminating if they confronted Vygotsky's theory in a more substantial and penetrating way.

### *Taking Culture a Bit More Seriously*

One might dismiss the authors' straw man caricature of Vygotsky as a secondary matter – except that it is linked to some significant gaps and weaknesses in their larger substantive analysis. One reason why their treatment of Vygotsky is misleading is that the discussion of their chosen example focuses too exclusively on the interactional processes involved. However, this focus is oddly off-center, since it leaves out a crucial theme in Vygotsky's larger theory: the child's active appropriation of more advanced, culturally elaborated, *cognitive tools* as part of the developmental process.

This example highlights a more general failure on the authors' part to confront one of the key theoretical challenges posed not just by Vygotsky but by sociocultural approaches more generally. This is the argument, developed in different ways by different thinkers, that individuals draw essential *cognitive resources* from culture through processes of active *appropriation* – which cannot simply be reduced to, or identified with, the kinds of passive absorption or imitation for which the authors reserve the term 'internalization.' As we have seen, the authors do recognize a significant role for collective representations, but only in defining and shaping systems of relationships. By itself, however, this picture entails a very partial and misleading conception of the role of culture and its constitutive significance. The collective representations embodied in culture include, above all, conceptual and symbolic systems that provide crucial frameworks, models and resources for human thought and action. Thus, the resources that individuals draw from culture include not just pieces of information, or tools of communication, or even definitions of social roles and identities, but also organizing cognitive (and evaluative) structures. The appropriation and mastery of these culturally elaborated forms is an essential condition of human thought and action.

Such, at least, are the core premises of any serious sociocultural understanding of development. These elements are critical for recognizing the *constitutive* and *formative* role of culture in development, and any conception of the 'social' context of development that excludes them has only a weak and underdeveloped *cultural* dimension. This is precisely the dimension that remains underdeveloped in the neo-Piagetian research program presented in Psaltis et al. [this issue] – which prevents its perspective from being fully sociocultural.

### **Some Concluding Reflections**

It might be useful to close with a pertinent and instructive passage from Inhelder and Piaget's *The Growth of Logical Thinking from Childhood to Adolescence* [1955/1958, p. 337]:

Moreover, the history of formal structures is linked to the evolution of culture and collective representations as well as their ontogenetic history .... A particular social environment remains indispensable for the realization of these possibilities. It follows that their realization can be accelerated or retarded as a function of cultural and educational conditions. [cf. Piaget, 1950/1995a, pp. 36–38]

What is interesting about this passage is that the last sentence effectively takes away what the preceding ones had granted. If the overwhelmingly important aspect of mental life is its attainment of universally valid cognitive structures, and if the contribution of collective representations is only to *accelerate* the development of those structures in a direction which is essentially invariant, then in the end their role is not so much constitutive as merely facilitative; it would thus be possible to reconstruct the developmental logic of mental structures through an examination that brackets off collective representations and studies cognitive development in isolation from them.

This underlying perspective may help explain why Piaget did not, in the end, manage to create a theory that effectively linked culture and collective representations with individual development, and thus was simultaneously constructivist and seriously sociocultural. So far, in our judgment, the research program pursued by the social Genevans (including the authors of the article under discussion) has not managed to achieve this either – and part of the reason lies in the fact that they have only partly broken out of the constraints of the Piagetian framework. However, as the saying goes, Rome was not built in a day, so this remains a challenge that they may wish to pursue further in the future.

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