

## The Social-Emotional and Cultural Contexts of Cognitive Development: Neo-Piagetian Perspectives

*Marie-Anne Suizzo*

The neo-Piagetian research on individual differences in cognitive development reviewed by Larivée, Normandeau, and Parent suggests that Piaget's theory can be used to explain variability in development. My commentary explores this question further through a discussion of two additional sources of variation in children's cognitive development: social-emotional context and cultural meanings.

### INTRODUCTION

In their review, Larivée, Normandeau, and Parent (2000) demonstrate that one can explain individual differences in cognitive development while remaining loyal to Piaget's ideas about the general nature of development and that a number of Francophone scholars have done just that. The reviewers present the work of French and Swiss researchers who have elaborated a "pluralistic and multidimensional model" of cognitive development that parallels the models of English-speaking neo-Piagetians such as Kurt Fischer and Robbie Case in its goal of describing multiple developmental pathways. The Francophone model attributes variability in cognitive task performance to various sources such as the situation and task context and the particular processing modes preferred by each subject, given a particular task. In my discussion, I would like to extend this line of thinking to examine the question of variation more broadly and to offer the perspectives of social-emotional development and cultural psychology to the study of cognition. My comments are framed by two main questions: Is integrating the study of social and emotional development with the study of cognition from within a Piagetian framework possible and fruitful? Does evidence on cognitive development around the globe support or reject Piaget's original model of how children's thinking develops? Finally, because I support the reviewers' goal of expanding our field of vision to include research produced in languages other than English, I will mention in my discussion several other Francophone researchers who have made important contributions to our knowledge about children's development.

### SOCIAL AND EMOTIONAL DEVELOPMENTAL CONTEXTS

Developmental psychologists in both the United States and France have demonstrated that integrating the study of social and emotional development with the study of cognitive development is both possible and fruitful and that it can be done within a Piagetian framework. According to one model, Kurt Fischer's "skill theory" (1980), emotions are generated in human beings through the appraisal of events in relation to specific goals (Fischer, Shaver, & Carnochan, 1990). These emotions then generate actions and "action tendencies" that are appropriate both to our particular cultural models and to our personal histories or "scripts." As children develop, this constant interplay between their cognitive and emotional functions gives rise to increases in their abilities to reflect on and understand their emotions, consider others' perspectives, and inhibit or plan their actions. Fischer's research on children's development has shown that a child's performance level on a given cognitive task will vary according to the level of social support he or she is accorded. With modeling or memory prompting by an adult, children will be able to perform at their optimal level, but without that support, they may perform only at their "functional" level and show no evidence of competence at the higher level (Fischer, 1980; Fischer, Rotenberg, Bullock, & Raya, 1993). Thus, to avoid misdiagnoses, assessments aimed at measuring children's highest cognitive ability level should include high support conditions.

In a recent volume reviewing Francophone research on early child development (Vyt, Bloch, & Bornstein, 1994), several authors highlight the fact that French developmental psychologists have historically been more interested in children's individual development

than in the effects of social interactions among children and between children and adults (Pecheux & Labrell, 1994). With a few exceptions (e.g., Gouin-Décarie, 1978; Wallon, 1968), the social and emotional aspects of children's development have traditionally been consigned to the realm of psychoanalysis in which France in particular has a rich scholarship dating back to Jacques Lacan and his students. In the past decade, however, the number of developmental psychologists choosing to examine children's cognitive development in the context of their social and emotional relationships has grown. In fact, many Francophone early child development researchers today consider the unit of analysis to be not the individual in relationship but the mother-child dyad (Rauh, 1994). Consequently, studies of dyadic and even triadic relationships and studies of social interactions in day care settings are steadily increasing (e.g., Pierrehumbert & Fivaz-Depeursinge, 1994).

In the domain of learning and cognitive development, several Francophone neo-Piagetian scholars such as Mina Verba and Fajda Winnykamen (1992) have examined children's performance on problem-solving tasks both alone and in cooperative contexts to assess the effects of social interaction on cognitive performance. These researchers find that individual performance level is influenced by the particular dynamic of the dyad, which is in turn shaped by factors such as the individual's status within the dyad (Berzin, Cauzinille, & Winnykamen, 1995; Verba & Winnykamen, 1992), self-reported feelings of self-efficacy (Puustinen & Winnykamen, 1998), and degree of sociability (Da Silva & Winnykamen, 1998).

By examining the role of social and emotional factors in cognitive functioning and development, these and other neo-Piagetian researchers have uncovered additional sources of variation to explain both inter- and intraindividual differences in cognitive development. In addition, they have done so by using Piaget's general model and methods.

## CULTURAL CONTEXTS OF COGNITIVE DEVELOPMENT

Extending the discussion to the variability in cognitive development identified through cross-cultural research, the question of what this research suggests about the universality of Piaget's theory is not as clearly answered. A number of developmental psychologists have administered Piagetian tasks to children around the world in an attempt to test the universality of Piaget's stages. One of the best known in this branch of neo-Piagetian scholarship is Swiss psychologist Pierre Dasen. In a review of cross-cultural

neo-Piagetian research, Dasen (1984, p. 424) concludes that "There may be some discussion about the age at which particular concepts are attained, the possibility that for some individuals this type of reasoning may, in some conceptual areas, remain a potential rather than a performance applicable to all contexts, but it remains that concrete operational reasoning has been found world-wide." In spite of the universality of the basic cognitive processing ability, Dasen acknowledges that there is a great deal of variation in how this ability develops and how it is deployed (Dasen & de Ribaupierre, 1987). In fact, in another review of Piagetian cross-cultural research, Robbie Case and Yukari Okamoto (1996) take a more cautious position and conclude that children and even adults living in societies where the base ten number system is not in use, or where formal schooling is not available to all, do not usually attain the level of formal operational thought normally reached by adults in industrial societies. To the extent that concrete operational reasoning is less valued, or less often necessary for daily existence, it may also be less apparent in children's daily activities and may develop later than in cultures where it is highly valued.

Among the Baoulé people living in Ivory Coast, for example, Dasen and his colleagues conducted ethnographic research that led to their identification of two "emic" or native categories of intelligence (Dasen et al., 1985). The first is technological or scholarly and includes skills such as observation, attention, memory, literacy, and schooling success. The second category of intelligence is referred to by Dasen as "social" and includes skills or characteristics such as politeness, helpfulness to others, verbal self-expression, responsibility, memory, and wisdom. Interestingly, it is this second type of intelligence that is most valued by the Baoulé because it is considered more relevant and useful to the functioning of the community.

The researchers reviewed by Larivée et al. (2000) define two categories of intelligence or reasoning ability in humans: analogical and propositional. Analogical reasoning develops through concrete experiences with social and physical objects, whereas propositional reasoning is acquired through formal instruction. Perhaps one of the greatest contributions of the Francophone researchers is to have proven that analogical reasoning is not subordinate to, or of a lower order than, propositional reasoning but that the two are used interchangeably. Even adults capable of the highest order reasoning possible will select the type of reasoning most suitable to the particular task at hand and in accordance with their personal preferences. Given the association between formal schooling and the ability to reach the higher stages of cognitive

development, some scholars have criticized Piaget's theory on political or moral grounds and have refused the implication that higher order thinking is better or that a person displaying higher level thinking may be a more valuable human being. If these Francophone scholars have contributed to eroding this misinterpretation through their empirical work, then they have indeed accomplished a praiseworthy goal. As Anglophone researchers have demonstrated that diverse pathways of development lead to multiple endpoints—webs of development rather than a single stairway to the top—these Francophones have shown that different modes of processing may be interchanged on the road to the next level.

## CONCLUSION

To understand how all children develop and to capture both the diversity and the universality, we must study the whole child in the world with all the complexity that such an endeavor demands. Piaget's relative inattention to the contextual factors such as cultural meanings, emotions, and social relations that affect children's thought was not an oversight on his part but rather an explicit choice of focus. Though Piaget studied the development of operational knowledge, he believed social knowledge to be of equal importance "since 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, 1965/1995). A few have since expanded Piaget's general model and methods by conducting research among children from cultures that are not of European origin and in other domains of human functioning that may be related to cognition but are not exclusively cognitive. The fact that Piaget's ideas have spawned such a large body of related empirical research confirms the strength of those ideas and the elegance of his theory.

## ADDRESS AND AFFILIATION

Corresponding author: Marie-Anne Suizzo, Child and Family Research Section, National Institute of Child Health and Human Development, Suite 8030, 6705 Rockledge Drive, Bethesda, MD 20892-6832; e-mail: ms497y@nih.gov.

## REFERENCES

Berzin, C., Cauzinille-Marmèche, E., & Winnykamen, F. (1995). Effet des interactions sociales dans la résolution d'une tâche de combinatoire auprès d'enfants de CMI

- [The effect of social interaction on fourth grade students' solution of a combination task]. *Archives de psychologie*, 63(244), 17–42.
- Case, R., & Okamoto, Y. (1996). The role of central conceptual structures in the development of children's thought. *Monographs of the Society for Research on Child Development*, 61(1–2, Serial No. 246).
- Da Silva, E., & Winnykamen, F. (1998). Degree of sociability and interactive behaviors in dyadic situations of problem solving. *European Journal of Psychology of Education*, 13(2), 253–270.
- Dasen, P. R. (1984). The cross-cultural study of intelligence: Piaget and the Baoulé. *International Journal of Psychology*, 19, 407–434.
- Dasen, P. R., Barthélémy, D., Kan, E., Kouamé, K., Daouda, K., Adjé, K. K., & Assandé, N. (1985). N'Glouele, l'intelligence chez les Baoulé [N'Glouele, intelligence according to the Baoulé]. *Archives de psychologie*, 53, 293–324.
- Dasen, P. R., & de Ribaupierre, A. (1987). Neo-Piagetian theories: Cross-cultural and differential perspectives. *International Journal of Psychology*, 22, 793–832.
- Fischer, K. W. (1980). A theory of cognitive development: The control and construction of hierarchies of skills. *Psychological Review*, 87, 477–531.
- Fischer, K. W., Rotenberg, E. J., Bullock, D. H., & Raya, P. (1993). The dynamics of competence: How context contributes directly to skill. In R. H. Wozniak & K. W. Fischer (Eds.), *Development in context: Acting and thinking in specific environments*. The Jean Piaget symposium series (pp. 93–117). Hillsdale, NJ: Erlbaum.
- Fischer, K. W., Shaver, P. R., & Carnochan, P. (1990). How emotions develop and how they organise development. *Cognition and emotion*, 4(2), 81–127.
- Gouin-Décarie, T. (1978). Affect development and cognition in a Piagetian context. In M. Lewis & L. A. Rosenblum (Eds.), *The development of affect* (pp. 183–204). New York: Plenum.
- Larivée, S., Normandeau, S., & Parent, S. (2000). The French connection: Some contributions of French-language research in the post-Piagetian era. *Child Development*, 71, 823–839.
- Pecheux, M. G., & Labrell, F. (1994). Parent-infant interactions and early childhood development. In A. Vyt, H. Bloch, & M. H. Bornstein (Eds.), *Early child development in the French tradition: Contributions from current research* (pp. 255–268). Hillsdale, NJ: Erlbaum.
- Piaget, J. (1995) *Sociological studies*. (T. Brown, R. Campbell, N. Emler, M. Ferrari, M. Gribetz, R. Kitchener, W. Mays, A. Notari, C. Sherrard, & L. Smith, Trans.) London & New York: Routledge. (Original work published 1965)
- Pierrehumbert, B., & Fivaz-Depeursinge, E. (1994). From dyadic to triadic relational prototypes. In A. Vyt, H. Bloch, & M. H. Bornstein (Eds.), *Early child development in the French tradition: Contributions from current research* (pp. 269–286). Hillsdale, NJ: Erlbaum.
- Puustinen, M., & Winnykamen, F. (1998). Influence du sentiment d'auto-efficacité dans la demande d'aide chez des enfants de 8 à 9 ans [The effect of the feeling of self-

- efficacy on 8–9 year olds' help-seeking behavior]. *Enfance*, 2, 173–188.
- Rauh, H. (1994). Interaction and development: Franco-phone, Anglophone, and Germanophone perspectives. In A. Vyt, H. Bloch, & M. H. Bornstein (Eds.), *Early child development in the French tradition: Contributions from current research* (pp. 337–349). Hillsdale, NJ: Erlbaum.
- Wallon, H. (1968). *L'Evolution psychologique de l'enfant* [The psychological evolution of the child]. Paris: Armand Colin Editeurs.
- Verba, M., & Winnykamen, F. (1992). Expert-novice interactions: Influence of partner status. *European Journal of Psychology of Education*, 7(1), 61–71.
- Vyt, A., Bloch, H., & Bornstein, M. H. (Eds.). (1994). *Early child development in the French tradition: Contributions from current research*. Hillsdale, NJ: Erlbaum.