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Contents

ISSBD SPECIAL SECTION

SOCIOCULTURAL PERSPECTIVES ON COGNITIVE DEVELOPMENT

Page

- | | | | |
|----|--|----|--|
| 1 | Introduction to Sociocultural Perspectives on Cognitive Development
<i>Joan G. Miller and Xinyin Chen</i> | 15 | Commentary: Moving from Sociocultural Perspectives to a Culturally Relevant Theory of Human Development
<i>Jonathan Tudge</i> |
| 1 | Cultural-Historical Activity Theory in the Family of Socio-Cultural Approaches
<i>Michael Cole</i> | 17 | Commentary: Variations on Mediation and Learning
<i>Yrjö Engeström</i> |
| 4 | Psychological Tools, Internalization and Mediation: The Neo-Vygotskian Elaboration of Vygotsky's Notions
<i>Yuriy V. Karpov</i> | 19 | Commentary: The Dynamic Interplay of Culture and Development
<i>Heidi Keller</i> |
| 7 | Cultural Research has Transformed Our Ideas of Cognitive Development
<i>Maricela Correa-Chávez and Barbara Rogoff</i> | 21 | Notes from the President |
| 10 | What We Learn in School: The Socialization of Cognition
<i>Terezinha Nunes</i> | 23 | Minutes of the ISSBD Executive Committee and General Business Meetings: Ghent, Belgium, 2004 |
| 12 | A Cultural-Historical Perspective on Children's Cognitive Development
<i>Mariane Hedegaard</i> | 29 | Search for New Editors of ISSBD Newsletter |
| | | 29 | Major Conferences of Interest |

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Sociocultural Perspectives on Cognitive Development

Introduction

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This Special Section brings together, under the label of ‘sociocultural perspectives,’ work with intellectual roots in the theory of Vygotsky. While this work has developed in distinctive ways and is known by somewhat contrasting theoretical labels, it shares a monistic view of culture and cognition. Rather than treating cognition as a purely internal psychological activity that can be understood independently from sociocultural and historical processes, approaches within this broad and somewhat eclectic tradition assume that cognitive processes depend fundamentally on and cannot be meaningfully understood independently of such influences.

The essays in this Special Section provide an overview of some of the key theoretical insights that inform sociocultural work, including its recognition of the centrality of culture in mediating psychological experience, its emphasis on the need for genetic and historical analyses of cognitive development, and its attention to cognition as it is embedded in culturally organized everyday activities. Discussion focuses on new ways to conceptualize variation in mediation and learning processes as well as to understand the fit between developmentally based motivational orientations and sociocultural activities. Consideration is also given to the existence of qualitatively variable modes of organizing attention and learning that emerge from children’s participation in practices within their communities and to work which suggests that mastery of procedures and not merely knowledge of signs may play an essential role in the internalization of psychological tools. In terms of implications for educational practice, consideration is given to issues in the design of school environments to promote learning in the zone of proximal development, and to the processes by which schools privilege certain types of educational achievement over others.

The authors and commentators represented in this Special Section have contributed to the theoretically rich and generative nature of sociocultural work. As their essays make clear, work in this tradition is not only enhancing current knowledge of sociocultural variation in cognitive processes and in patterns of developmental change, but also contributing new understandings of the process of cognitive development that are enriching basic developmental theory.

Cultural-Historical Activity Theory in the Family of Socio-Cultural Approaches

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I preface my remarks with a brief comment on terminology. The reader will note that I do not use the term, “socio-cultural” to refer to my approach to the study of culture in human development. Rather, I have settled on the notion of “cultural-historical activity theory” an amalgam of terms proposed by Lev Vygotsky, Alexander Luria, A.N. Leontiev and their students (Leontiev, 1981; Luria, 1928; Vygotsky, 1978). Initially they referred to their approach as “instrumental” or “cultural-historical” psychology to highlight the centrality of mediation of action through tools as the cornerstone of “the cultural habit of behavior.” Later, Leontiev elaborated on the importance of activity as a central starting point for psychological analysis. In the 1980’s, scholars unhappy about the extent to which the (then) Soviet ideas were tainted by the equation of history with progress, settled on the idea of socio-cultural studies as a way of marking both their rejection of Marxist historicism and their desire to emphasize the interpenetration of the social and cultural in human life. As will become clear below, I believe that the terminological advantages of such a shift carry with



them the danger of losing one's focus on genetic (developmental) analysis and a commitment to grounding one's analysis in everyday activity.

However, my own use of ideas inspired by Soviet cultural-historical, activity theorists should not be interpreted as wholesale and uncritical acceptance of all of their ideas. For example, I do not equate history and progress. Rather, for many years I have advocated the idea that whether a particular form of behavior is evaluated as more or less developed depends critically upon the context in which it occurs and that all societies display great heterogeneity in the complexity and sophistication depending upon the cultural circumstances in question. In place of the German notion of *Kultur* as the finest achievements of human kind, I have adopted the idea of cultures as the collective problem solving toolkits of individual social groups in response to their historical and ecological circumstances. In this regard, I have been greatly influenced by the tradition of Anglo-American ethnographic research and theory, a discipline that has no precise equivalent in the Russian tradition.

I first became interested in the role of culture in human development as a result of my own, more or less fortuitous, introduction to cross-cultural developmental research. Given the task of discovering why rural Liberian children seemed to experience extraordinary difficulty with mathematics in school, my colleague John Gay and I made the commonsense assumption that we needed to start out by finding out how the system of ideas we think of as mathematics arises in children's everyday activities and the intellectual tools they had evolved to deal with problems requiring the use of mathematics (Gay & Cole, 1966). This work produced examples of performance on psychological tests modeled after the everyday (mathematical) practices of unschooled Liberian rice farmers where the rice farmers outperformed Yale undergraduates.

For several years this work proceeded in a more or less a-theoretical manner. My major preoccupation was with the methodological problems of drawing conclusions about the development of psychological processes based on methods from experimental, developmental psychology. Repeated demonstrations that modifications of instructions, materials, and procedures produced major shifts in the behavior of non-literate West African peoples led me to an emphasis on the role of cultural context in development and a profound mistrust in the social-ecological validity of the psychological diagnostic procedures routinely used in the United States and other industrialized countries as instruments for the study of general processes of psychological development. Aside from its negative value as an antidote to overzealous conclusions about the under-developed minds of non-literate peoples, a positive generalization to come from this work was that a good many of the developmental changes that psychologists had been attributing to maturation were, in fact, the consequences of schooling, a social institution of relatively recent historical origin. But even this conclusion was marred by doubts that the observed developmental impact of schooling might be simply a narrow "practice effect" because the structure of experimental psychological tasks and the structure of school-based tasks have a common origin and structure.

It is in this context that, after many years of uncomprehending familiarity with their work, that I began

to take seriously the theoretical position of the Russian cultural-historical activity theorists. Their view of the centrality of culture to all, specifically human, psychological processes was based on three interlocking assumptions.

1. *The centrality of mediation.* Specifically human psychological processes arose in the course of phylogeny with a new form of behavior in which humans modified material objects as a means of regulating their interactions with each other and the world. As a consequence, "instead of applying directly its natural function to the solution of a particular task, the child puts between the function and the task a certain auxiliary means... by the medium of which the child manages to perform the task" (Luria, 1928, p. 495).
2. *Genetic (historical) analysis.* Vygotsky was prone to quote Pavel Blonsky to the effect that "To understand behavior; one must understand the history of behavior." This injunction was applied at several different time scales: the history of the species (phylogeny), the history of the cultural resources of the social group (culture), the history of individuals (ontogeny), and the moment to moment history of interactions that constitute living behavior (microgenesis). In effect, human development is the emergent outcome of interactions occurring simultaneously at all these time scales and levels of analysis. Vygotsky emphasized the age period when children begin to master their native language as a crucial time when phylogeny and cultural-history merge in human development but his followers also carried out studies of blind-deaf children placed in homes by despairing parents, adult peasants undergoing rapid changes in their modes of life, and brain damaged adults who had lost the ability to read.
3. *Grounding in cultural organized activity.* From a cultural-historical perspective, the natural laboratory for the study of the role of culture in human development is in the everyday activities of people. This point was made explicitly by Alexei Leontiev (1981, p. 11): "... human psychology is concerned with the activity of concrete individuals, which takes place either in a collective—that is, jointly with other people—or in a situation in which the subject deals directly with the surrounding world of objects—for example, at the potter's wheel or the writer's desk... With all its varied forms, the human individual's activity is a system in the system of social relations. It does not exist without these relations. The specific form in which it exists is determined by the forms and means of material and mental social interaction."

These ideas were by no means unique to Russian psychology. Similar ideas can be seen in the writings of many early 20th European and American scholars. For example, John Dewey not only emphasized the centrality of tool mediated action as central to human cognition, but wrote that "... we live from birth to death in a world of persons and things that is in large measure what it is because of what has been done and transmitted from previous human activities. When this fact is ignored, experience is treated as if it were something which goes on exclusively inside an individual's body and mind. It ought not to be necessary to say that experience does not occur in a vacuum. There are sources outside an individual which give rise to experience (Dewey, 1938/1963, p. 39). (For more extensive examples, see Cole, 1996, Valsiner, 1998).

Culture, according to this perspective, can be understood as the entire pool of artifacts accumulated by the social group

in the course of its historical experience. In the aggregate, the accumulated artifacts of a group, culture, is then seen as the species-specific **medium** of human development. It is “history in the present.” The capacity to develop within that medium and to arrange for its reproduction in succeeding generations is *the* distinctive characteristic of our species.

This set of assumptions directly entails two additional principles. The first is the “general law of cultural development” (an idea articulated by Janet). As Vygotsky phrased it, “Any function in children’s cultural development appears twice or on two planes. First it appears on the social plane and then on the psychological plane. First it appears between people as an interpsychological category ... and then within the individual child as an intrapsychological category.” (Vygotsky, 1981, p. 163). The second is the idea of a zone of proximal development, the gap between what children can accomplish on their own and what they can accomplish in collaboration with a more competent other or in play.

Many research programs have developed different aspects of this overall approach to human development.

The impact of rapid cultural change on cognitive development was first studied in the 1930’s by Alexander Luria (1976) who reported on the basis of a variety of evidence (tests of perception, categorization, syllogistic reasoning) that a shift from traditional pastoralism to participation in collectivized farming and schooling induced a shift in people’s reasoning from one grounded in functional relations related to specific contexts of activity to one in which people were more likely to reason from the verbal premises of problems. This work can be criticized on methodological grounds (Cole, 1996) and Luria’s conclusions now appear to be over-generalized, but the idea of studying the impact of rapid cultural change on cognitive development has flourished in recent years.

For example, King Beach and his colleagues investigated rapid changes in mathematical reasoning among Nepalese villagers, who began to engage in commerce mediated by an alien monetary system and methods of exchange, when a road was built between their isolated village and an urban commercial center (Beach, 1995). Beach showed how perfectly functional indigenous methods of calculation could be replaced by methods learned in school that actually led to a decrement in performance in the conditions of exchange present in Nepal at the time. Geoffrey Saxe and his colleagues have documented changes in mathematical notation systems and practices associated with the introduction of monetary trade into a previously remote area of New Guinea (Saxe & Esmonde, in press). Patricia Greenfield (2004) has documented a variety of changes among peasants living in remote areas of Chiapis, Mexico, in which patterns of mother-child interaction focused on weaving, as well as the complexity of the woven products, changed in association with changed exposure to modern textiles and involvement in the money economy associated with increased contact with modern sectors of the Mexican economy.

Research focused on variations in modes of culturally organized activity inspired by cultural-historical psychology have included Scribner and Cole’s (1981) work showing the central role of the organization of activities in shaping the cognitive consequences of literacy, Gaskin’s (2000) work on cultural variations in play activity that challenges

Eurocentric notions about the role of play in cognitive development, and Rogoff’s work on intense observation as an important mechanism of learning in Guatemalan peasant communities (Rogoff, 2003).

A great deal of within-culture work has been conducted on the dynamics of learning and development in pre-school and school contexts focused both on the mastery of new mediational means, such as writing systems, new modes of organizing the social organization of instructional activity (Gallego, Cole, & LCHC, 2002; Hedegaard, 1996; Paley, 1981; Rogoff, 2003), as well as new ways of organizing developmental changes in work processes among adults (Engeström, Engeström, & Suntuo, 2002).

A complaint often voiced with respect to Vygotsky’s formulation of the intertwining of natural (phylogenetic) and cultural (historical) lines of development is that the natural line has gone unexamined (despite the fact that Luria carried out the earliest extensive studies comparing the cognitive development of monozygotic and fraternal twins in the psychological literature, see Luria, 1977). Certainly phylogenetic comparisons involving culture and cognition have increased in popularity in recent years. For example, Michael Tomasello (1999) has brought the study of chimpanzee cognitive development into dialogue with studies of the cognitive precursors and cognitive consequences of acquiring language and culture during infancy. Interestingly, the most compelling evidence of the cognitive and cultural potentials of chimpanzees and bonobos are realized when these animals are enculturated by human beings instead of growing to maturity in the wild, suggesting the existence of an inter-species zone of proximal development. In a different sphere, Giyoo Hatano and Kayako Inagaki (2002) have proposed that phylogenetically constrained “skeletal principles” must be combined with culturally organized participation of young children in appropriate practices as the necessary and sufficient conditions for human concept development.

Of particular interest to me has been research that uses cultural-historical theory to motivate the design of development-enhancing environments for development (Engeström, et al., 2002; Nicoloplou & Cole, 1993). This work, termed “formative experimentation” by Vygotsky and his students, has become fashionable in the United States under the rubric of “design experimentation.” My work has sought to design “idiocultures” that embody my theoretical assumptions so that they serve as zones of proximal development for children who struggle in school. Engeström and his colleagues have created “developmental change laboratories” that directly embody the principle, articulated by Luria above, in which working groups are assisted to create tools to solve the difficulties facing them at their jobs. When such research is effectively conducted, it permits the study of how different levels of genetic analysis can be applied and analyzed for the participants in a single system of activity. Such analyses can illuminate the mutual interactions among levels within an activity system that account for the dynamics of development at each level – a basic principle of cultural-historical activity theory that has been much discussed, but rarely implemented.

I hope it is clear from this brief summary that cultural-historical activity theory is a broad, interdisciplinary

“the idea of a zone of proximal development”



A glimpse of the variety of activities in a 5thDimension idioculture: the child in the foreground is engaged in a science project, the child at the far end is engaging a computer problem solving game and the child in the middle is examining a board with other children's art work, considering what to engage in next.

enterprise. Because it takes cultural mediation to be a universal feature of human life, it may or may not involve research in different cultures. In this respect, it may involve cross-cultural research, research in a particular cultural setting that provides the opportunity to highlight process of cultural mediation, or in one's own culture. Like the broad range of approaches referred to as "socio-cultural" it views mediation to be a double-sided process in which mediation of action through and with other people (often referred to as modes of participation) and mediation of action focused on mastery of the physical world are always part of a single, dual-directional system of cultural mediation. Moreover, rather than viewing human beings as creatures who have freed themselves from phylogenetic history, it assumes an ongoing dialectic of change in which nature and nurture, phylogeny and culture, are inextricably linked.

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Psychological Tools, Internalization, and Mediation: The Neo-Vygotskian Elaboration of Vygotsky's Notions

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The notions of psychological tools, internalization, and mediation are cornerstones of both Vygotsky's socio-cultural

theory (Vygotsky, 1978, 1934/1986, 1981) and *activity theory* developed by his Russian followers (Galperin, 1957; Leontiev, 1959, 1983; Zaporozhcz, 1986). The goal of this article is to present the neo-Vygotskian notions of psychological tools, internalization, and mediation as fruitful elaborations of Vygotsky's notions, which resulted in overcoming by the neo-Vygotskians of the shortcomings of Vygotsky's socio-cultural theory.

Psychological Tools as Mediators of Human Mental Processes

According to Vygotsky, the major characteristic of human mental processes relates to the fact that they, just like human labor, are mediated by tools. But these are special, psychological tools. Human babies are not born with tools of labor in their hands; these tools are invented by human society, and children acquire and master them.

The same is true of psychological tools, which reflect the accumulated experience of human kind. Rather than being born with such tools, children acquire and master them. Having been mastered by children, psychological tools come to mediate their mental processes. Specifically, human mental processes, which are mediated by tools, were called by Vygotsky higher mental processes, to distinguish them from lower mental processes, with which children are born and which are specific to both young children and animals.

Discussing psychological tools, Vygotsky referred to language, concepts, signs, and symbols as examples of such tools. Vygotsky, to be sure, would agree that a child's learning of a new word, concept, sign, or symbol does not automatically make this word, concept, sign, or symbol a psychological tool. Discussing, for example, scientific concepts as psychological tools that come to mediate mental processes of school-age children, Vygotsky (1934/1986) noted that "the difficulty with scientific concepts lies in their *verbalism*" (p. 148). He also pointed out that "scientific concepts . . . just start their development, rather than finish it, at a moment when the child learns the term or word-meaning denoting the new concept" (Vygotsky, 1934/1986, p. 159). Vygotsky, however, never elaborated these reservations. Therefore, his theory is traditionally (and, in general, correctly) associated with the notion of semiotic tools as mediators of human mental processes (see, e.g., Kozulin, 1986).

Could, however, words, concepts, signs or symbols by themselves serve as psychological tools mediating human mental processes? From Vygotsky's (1981) perspective, a sign "alters the entire flow and structure of mental functions. It does this by determining the structure of a new instrumental act, just as a technical tool alters the process of a natural adaptation by determining the form of labor operations" (p. 137). The point is, however, that a practical (or technical) tool by itself does not determine the form or structure of a human operation, since the possession of a tool does not lead automatically to the mastery of the procedure for the use of this tool. Everybody can probably remember his or her first unsuccessful experience with the use of chopsticks: The tool was given, but the procedure for the use of this tool as a tool for eating was missing. Therefore, from the neo-Vygotskian perspective, "the mastery of a tool does not simply mean the possession of the tool, but it means the

mastery of the procedure for the use of this tool" (Leontiev, 1959, p. 213).

The above conclusion of the neo-Vygotskians is true of psychological tools as well. Students' memorization of scientific conceptual knowledge (rules, concepts, definitions, or theorems) that is not supported by their mastery of relevant procedural knowledge (that is, subject-domain strategies and skills) doesn't lead to the students' use of this knowledge for solving subject-domain problems (Davydov, 1972/1990). For example, having memorized the concepts of mammals, birds, and fish, elementary school students, when classifying animals, were shown to proceed from surface characteristics of the animals rather than from the concepts that they had memorized (e.g., they associated the whale with the class of fish). Thus, according to the neo-Vygotskians, the mastery of a psychological tool requires that

"psychological tools come to mediate their mental processes"

the child has mastered the procedure for the use of this tool (Galperin, 1957; Leontiev, 1959, 1983; Zaporozhcz, 1986). In particular, scientific concepts serve as mediators of students' thinking and problem solving in different subject domains only if they are supported by students' mastery of relevant procedures that underlie these concepts. As Leontiev (1983) indicated, "In

order for a child to develop the highest generalization (a concept), it is necessary to develop in him the system of psychological operations [procedures - Y.K.] that are relevant to this highest generalization" (p. 347). For the above example, students' mastery of the concepts of mammals, birds, and fish implies that not only are students able to repeat these concepts, but they have also mastered the procedures for identifying in different animals those attributes that are necessary and sufficient for associating (or not associating) these animals with mammals, birds, or fish.

As Kozulin (1986) correctly indicates, "the role of a sign as the chief mediator has been played down [by the neo-Vygotskians]" (p. 270). In contrast, however, to Kozulin's (1986) criticism of this "revisionist position" (p. 264) of the neo-Vygotskians, I consider this position to be a fruitful elaboration of Vygotsky's notion of psychological tools.

Internalization of Psychological Tools

The major aspect of the mastery of psychological tools by children is, according to Vygotsky, *internalization* of these tools. For example, when memorizing a set of words, children are able to use external memory aids, such as cards with different pictures, which children then use to recall the words proceeding from the association between a word and a picture that they have developed. Adults, in contrast, do not need such external memory aids to memorize and recall since they possess internal psychological tools (mnemonics). Referring to these data, Vygotsky (1978) wrote: "What takes place is what we have called internalization; the external sign [a card - Y. K] that school children require has been transformed into an internal sign produced by the adult as a means of remembering" (p. 45).

As discussed, the neo-Vygotskians hold that the mastery of a psychological tool requires that the child has mastered the procedure for the use of this tool. Therefore, from the neo-Vygotskian perspective, the primary difference between the performance of the school children and the adults in the above example was not that, in order to memorize and recall, the children were using external signs, and adults were using

internal signs. Rather, the difference was in the level of internalization of their mnemonic procedures. The mnemonic procedures of the school children were partially exteriorized and therefore could not be performed without a visual support in the form of the cards, whereas the adults' mnemonics were internalized and did not require such a visual support. Thus, internalization for the neo-Vygotskians is the internalization of procedures rather than the internalization of signs. As Leontiev (1959) wrote, "The mastery of mental procedures, which *underlies the acquisition by an individual of knowledge and concepts* [italics mine – Y. K.] accumulated by human kind, necessarily requires the transition from the performance of external procedures to ... gradual internalization of the procedures, which results in their transformation into abridged mental procedures" (p. 305).

"far from viewing children as passive recipients of psychological tools"

Mediation as the Determinant of Mental Development

Vygotsky and the neo-Vygotskians consider mediation to be a two-aspect process. As discussed, the first aspect of mediation relates to children's mastery of new psychological tools, which become internalized and come to *mediate* the child's mental processes. The second component of mediation relates to the role of adults as *mediators* of children's acquisition and mastery of new psychological tools.

Both Vygotsky and his Russian followers have held that, being products of human culture, psychological tools should be taught to children by representatives of this culture. Indeed, nobody would expect a new generation to re-invent tools of labor that were invented by previous generations. The same is true of psychological tools that serve as mediators of human mental processes. However, the difference between Vygotsky and the neo-Vygotskians in their understanding of the nature of psychological tools has resulted in different understanding of the process of adults' mediation of the acquisition and mastery by children of new psychological tools.

For Vygotsky, who defined psychological tools as words, concepts, signs, or symbols, a natural context for a child's acquisition of such tools is the situation of child-adult verbal communication. To be sure, Vygotsky was far from viewing children as passive recipients of semiotic tools presented by adults in the course of interpersonal communication. But, when turning his discussion from general theoretical issues to children's development at different stages, Vygotsky often limited this discussion to the analysis of children's acquisition of semiotic tools in the course of interpersonal communication with adults (see, for example, Vygotsky's [1934/1986] doctrine of acquisition of scientific concepts as instrumental in the development of school-age children). This analysis by itself leads to the position that "whatever is of major importance for the development of individual consciousness, is introduced into it through social consciousness" (Leontiev & Luria, 1968, p. 353).

In contrast, the neo-Vygotskians, as discussed, emphasize the importance of procedures for the use of psychological tools as mediators of human mental processes. These procedures can be mastered by children only in the context of their joint activity with adults aimed at performing a task, rather than in context of their verbal communication

(Galperin, 1957; Leontiev, 1959; Zaporozhets, 1986). From this perspective, mediation starts with the adult's "exteriorizing" (modeling and explaining) the procedure for the use of the new psychological tool, which is necessary to perform the task. Then, the adult involves the child into joint performance of this procedure, creating in this way the zone of proximal development of a new mental process, and guides the child's mastery and internalization of this procedure. As the child becomes more and more proficient in the use of the procedure, the adult withdraws himself or herself from the situation of joint performance, passing more and more responsibility for performing the task to the child. As a result, the mastered and internalized procedure comes to mediate the child's mental processes.

The neo-Vygotskians' notion of mediation has been especially important for their development of innovative instructional procedures. What follows is a description of such a procedure developed by Dyachenko (1986) for teaching 5- to 6-year-old children to retell the plot of a tale. The assignment to retell a plot of a tale imposes a very demanding cognitive task upon the child. The child, while listening to a tale, has to construct a symbolic model of this tale, which involves the representations of the sequence of episodes with characters and actions engaged in each episode. No wonder, not only first graders but even much older children find this task too difficult to perform. Proceeding from the neo-Vygotskian view of mediation, at the first step of Dyachenko's (1986) instructional procedure, children get involved in joint activity with a teacher aimed at the analysis of the tale that they were read, constructing the tale's model by reproducing its main episodes on a table with the use of substitutes (sticks, paper cutouts, etc.), and retelling the tale proceeding from this model. At the next step, children, while working more independently, draw a tale's model (Fig 1) and use it to retell the plot of the tale. Finally, the children come to construct the model of a tale at the symbolic level and retell the tale proceeding from this symbolic model. The success of this and other instructional procedures developed on the basis of the neo-Vygotskian notion of mediation (see Karpov, 1995, for a review) has confirmed the validity and fruitfulness of this notion.



Fig. 1. A model of a 1.5-page tale about a girl who went to a forest and met there a little bear, who presented a magic mushroom to her (drawn by a 5.25-year-old child). Reprinted from Dyachenko (1986).

Conclusion: The Neo-Vygotskian Elaboration of Vygotsky's Notions

Western researchers often express opposing views of the relationships between the neo-Vygotskian activity theory and Vygotsky's socio-cultural theory. For example, Gauvain (2001) holds that activity theory was founded by Vygotsky (p. 48), whereas Kozulin (1986) insists that the

succession from Vygotsky's approach to activity theory is just a "myth" (p. 264). Proceeding from the above discussion, I view activity theory as a logical and internally consistent elaboration of Vygotsky's cultural-historical theory, which has resulted in the overcoming by the neo-Vygotskians of the shortcomings of Vygotsky's socio-cultural theory. Thus, I disagree with both those who do not see important differences between the views of Vygotsky and his Russian followers and those who erect a wall between these views.

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Cultural Research has Transformed Our Ideas of Cognitive Development

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Over the past 30 years, cultural research has transformed research and ideas of cognitive development. Early on, it drew attention to the role of context and questioned the assumptions of generality of individuals' cognitive processes that were widely held at the time. Then cultural researchers developed a family of theoretical approaches that included social, cultural, and historical aspects of cognition and development. As a result, cultural research has been broadening the idea of cognition to include processes of communication. We examine these developments, and illustrate the potential for treating communication as a key aspect of cognitive development using cultural research that relates processes of attention and learning with the organization of people's involvement in shared endeavors.

The Role of Context and Assumptions of General Cognitive Processes

In 1974 when Michael Cole and Sylvia Scribner published their influential book on *Culture and Thought*, it was still widely assumed that cognition took place solely within the individual head, such that a few tests would be able to "measure" an individual's cognitive development in general. There was little attention to the contributions of contexts in which people were thinking. This assumption of generality of cognitive processes was common in many approaches to cognitive development. For example, although Piaget recognized that tests of cognitive stages did not show stage transitions occurring all at once, his solution to the problem — calling it horizontal décalage, and referring to varying 'friction' of the tasks — was only a rudimentary nod in the direction of context.

The work of a number of cultural researchers called the assumption of general cognitive processing into question. The work of Bronfenbrenner, Cole, Goodnow, Greenfield, Lave, Price-Williams, Rogoff, Saxe, Scribner, and Serpell, among others, directed the field's attention to the importance of understanding contexts of thinking (see Rogoff & Chavajay, 1995, for an account of historical changes in research on culture and cognition). Cultural researchers reported that people who performed abominably on tests of memory or logic more than held their own in remembering and using logic in many everyday settings.

Such findings, and work by allied researchers who paid increased attention to variation across settings, led to the realization that thinking depends on features of the context,



not just on the mental activity of brains. Cultural researchers' efforts to understand the contextual aspects of thinking led to very fruitful theoretical advances in how cognition was understood, spurred especially by the 1978 translation of Vygotsky's work in the volume *Mind in Society* (edited by Cole, John-Steiner, Scribner, and Souberman).

SocioCultural/Historical Theorizing

In the search for ways to understand cognitive development in context, Vygotsky's ideas offered ways to think about individual minds within social, cultural, and historical processes. In the ensuing decades, a very healthy scholarly tradition has developed around the resulting ideas — referred to as sociocultural theory or cultural/historical theory (or other combinations of social/cultural/historical, which we will treat as equivalent for present purposes).

One crucial idea of sociocultural/historical theory is that — given that cognitive development depends greatly on social engagement with other people — cognition can no longer be thought of simply in terms of the mental faculties that preceded this theory: memory, attention, perception, plans, logic, and so on. These processes are clearly not separate from each other nor do they occur in isolation from their use. Therefore it makes sense to investigate how people remember, attend, perceive, plan, reason, and so on, in ways that serve people's functioning in the world. These processes are closely tied with social goals and with individuals learning to function as participants in cultural communities, which means that social engagement and communication are a key aspect of cognitive development.

“development depends greatly on social engagement”

Communication as a Cognitive Process

Many studies of cognitive development that examine social interaction limit its role to serving as a 'treatment' that people are subjected to, with the 'outcomes' of this treatment examined in posttests that seek changes in a mental faculty. Rogoff (1998, 2003) critiqued this “social influence” approach on the grounds that understanding cognitive development requires attention to how people's thinking occurs as they participate in socially, culturally, and historically shaped events. In particular, the testing session itself — long treated as a probe of mental processes unfettered by social and contextual aspects — became the subject of analysis as a social/cultural/historical event.

Largely for reasons of tradition, developmental researchers still persist in dividing the field into separate sub-fields of social development and cognitive development, even with the recognition that this is an arbitrary distinction. Indeed, the prominent journals *Social Development* and *Cognitive Development* have each at various times attempted to smudge the dividing line, inviting articles that bridge social and cognitive development.

Communication is a key problem solving situation in which people attempt to make sense of others' communicative efforts and to address their own goals by communicating with others on whom they depend in multiple ways. Coordinating ideas and actions together involves perceiving and attending to companions' contributions and other ongoing events; reasoning about and taking the perspective of others; remembering the course of events at hand (including conversational moves); and

planning one's own contributions while predicting their effects on others and on shared activities. These activities are clearly both cognitive and social. In our concluding section, we discuss a line of investigation that illustrates research questions that arise in the study of communication as a cognitive process.

Cultural Research Relating Attention Management, Organization of Involvement in Shared Endeavors, and Learning

As an example of the research topics that open up when communication is itself regarded as a cognitive (and social) process worthy of investigation, we refer to our investigations that delve into the cultural nature of how people learn and how they manage their attention. The research relates the processes of learning and attention management to cultural traditions organizing children's participation in community activities.

A recent *Annual Review* article distinguishes two (of many) cultural traditions for organizing learning (Rogoff, Paradise, Mejia Arauz, Correa-Chávez, & Angelillo, 2003; see also Jordan, 1993). The defining features of these traditions involve how communication is organized in the prototypes of both intent participation and assembly-line instruction.

In *intent participation*, children and others learn through their observation and contributions to shared activities of importance in their community. Children are not segregated from mature activities of their community, but rather have access to observe and to begin to pitch in to important activities as they become ready. The more expert people involved in the activity collaborate with the children (or other newcomers) and may or may not provide pointers in the process of the shared endeavor. Communication focuses on accomplishing the activity at hand; if there are explanations they are tied to the ongoing activity. A great deal of the responsibility for learning is handled by the initiative of the learners, who figure out the principles and skills with keen attention to surrounding events as well as their own efforts to help or to emulate the activities in play, supported but not necessarily organized by the more expert participants. Learners are generally motivated to learn by the importance of being able to contribute to valued community activities.

Another cultural tradition for learning was called *assembly-line instruction* by Rogoff et al. (2003). Here, communication focuses on instruction independent of contributions to ongoing mature activities of the community. Children (and other learners) in this tradition are segregated from mature community activities, in a specialized setting designed for instruction. The responsibility for learning is largely held by experts who unilaterally manage the learners, subdivide their tasks, and do not collaborate with the learners in productive activity. Communication (and learning) are organized as lessons, often with learners having little idea of how particular steps in a process relate to overall goals of the activity. Specialized formats of communication are common, such as experts asking questions to which they already know the answers, as a way of quizzing learners' knowledge or encouraging compliance with the lesson. Explanations generally occur out of the context of productive activity, with much of the communicative work relying on

talk separate from action and ongoing shared referents. A major feature of assembly-line instruction is testing the receipt of information delivered by experts, both as a way of motivating learners' compliance with task demands and as a way of sorting and certifying learners for further instruction and eventual roles.

The inspiration for articulating the tradition of learning through intent participation came from ethnographic research in Indigenous communities of North and Central America. Assembly-line instruction provides a prototype for organization of children's learning opportunities in many — but not all — school settings (for discussion of schooling organized in ways that resemble intent participation, see Rogoff, Goodman Turkanis, & Bartlett, 2001). Interaction based on the assembly-line instruction tradition can also often be seen in the homes of toddlers and children in families where extensive schooling has been prevalent for several generations

These two traditions for organizing learning (along with others) clearly involve differing ways of managing attention, along with other traditionally cognitive as well as communicative processes. To investigate these processes, the work of our research team has focused on the patterns of attention and communication frequent in communities of Indigenous North and Central American heritage and European heritage highly schooled communities.

In brief outlines, what we are finding is that the attentional and learning processes of children from families with little schooling in Indigenous-heritage communities are quite distinct from those of children from European-heritage families with extensive schooling. Children of Indigenous heritage whose mothers have little schooling were more likely to observe a paper-folding demonstration without pressing for further information (Mejía Arauz, Rogoff, & Paradise, in press; see also Gaskins, 1999; Paradise, 1994). They were more likely to attend keenly to several ongoing events, such as skillfully operating a novel object or folding an Origami figure, at the same time as they studiously attended to other events such as the activities of adults or peers (Chavajay & Rogoff, 1999; Correa-Chávez, Rogoff, & Mejía Arauz, in press; Rogoff, Mistry, Göncü, & Mosier, 1993). In contrast, European-American children whose mothers had

extensive school experience were likely to pay attention to ongoing events one-at-a-time, either by alternating their attention rapidly or in some cases appearing unaware of ongoing events in which they were otherwise interested.

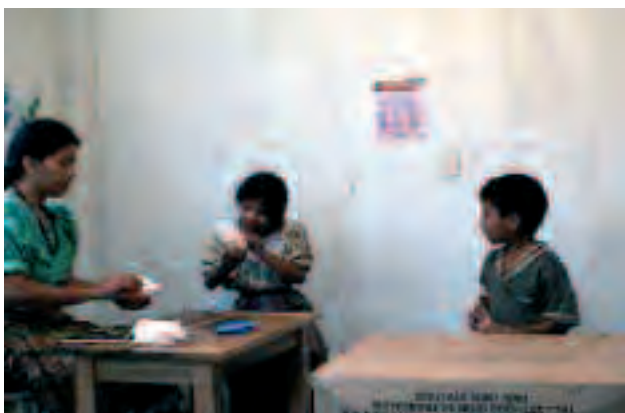
The attentional processes involved in keen observation and simultaneous attention may well be related to the findings that Indigenous-heritage children whose mothers had little schooling more frequently collaborated with others in multi-directional engagement in groups (Chavajay & Rogoff, 2002; Mejia-Arauz, Rogoff, Najafi, & Dexter, submitted). In contrast, European-heritage children whose mothers had extensive schooling more often engaged with just one other person or alone, even in the presence of a group, and their mothers often directed their involvement by dividing groups of four into two-person teams or singletons. The connections between keen observation, broad attention, and collaboration in groups may not be accidental; indeed, we think they together are part of the learning tradition of intent participation.

Specialized formats of communication, connected with lessons, were relatively frequent in European-heritage families with extensive schooling, but rare in Indigenous-heritage families with little schooling. For example, while helping their toddlers operate novel objects, middle-class US caregivers often

engaged their toddlers in language lessons and school-like quizzes about properties of objects, but these were uncommon in a Guatemalan Maya community (Rogoff, Mistry, Göncü & Mosier, 1993; see also Dixon, Levine, Richman, & Brazelton, 1984). A focus on the communicative practices common to each cultural community helps show how the forms of attention management and learning may be related to the communicative traditions in which the children and their families routinely engage.

Our purpose in this article has been to draw attention to the rich research possibilities available if the investigation of cognitive development begins to focus more explicitly on processes of communication. Cultural research has suggested that research should go beyond a limited attention to social interaction as a treatment that might result in cognitive outcomes. Based on the cultural research of recent decades, we argue that communication is not just a means to achieve cognitive development. Communication is a process that

“research team has focused on the patterns of attention and communication”



Children from Indigenous heritage backgrounds may be more likely to attend to events that are not directed to them, as with this Guatemalan Mayan boy who attentively looks on as his older sister is shown how to build a toy mouse, although he has been told that he will build a different toy in a few minutes and given a distracter toy. In contrast, this European-American girl does not observe her sister's instruction in how to build the toy mouse and appears bored as she waits for her turn to make a different toy (Correa-Chávez & Rogoff, in preparation). Please note these images have been supplied from video.



warrants close study in the investigation of cognitive development.

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What We Learn in School: The Socialization of Cognition

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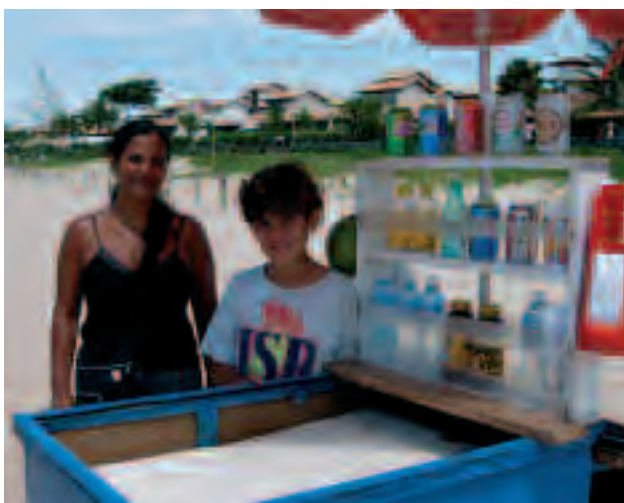
This essay focuses on two aspects of the socialization of cognition: how skills develop in different ways in and out of school, the values attached to these different developmental paths, and the impact that they have on children's self-perceptions as learners and their perceptions of each other. I will not include under this theme the analysis of how social interaction and cultural practices promote cognitive development, a theme expertly analyzed by many great researchers (e.g., Doise & Mugny, 1984; Cole & Scribner, 1974; Greenfield, Maynard, & Childs, 2003, to cite only a few). For reasons of space, this essay does not offer a review of the literature but considers issues related to why perfectly capable children might fail in school.

How Mathematical Skills Developed in and out of School Differ

During several years, Analucia Schliemann, David Carraher and I, with many of our students in Brazil, tried to understand why poor children failed in mathematics in school. Our initial belief in the 'cognitive disadvantage' explanation was ditched early on in our program of investigation, when we observed that children who worked in the informal economy, selling a variety of items in street corners, were able to solve correctly the same arithmetic problems that they could not solve in school (Nunes Carraher, Carraher, & Schliemann, 1985). Other researchers (e.g., Gay & Cole, 1967; Reed & Lave, 1981) had documented the existence of different practices of arithmetic when they compared schooled and unschooled adults and thus had taken a considerable step in showing that mathematical skills are shaped by culture and schooling. Our studies had the novelty of showing that children who engaged in different cultural practices, street trading and school learning found themselves at the cross-roads between two cultural forms of the same knowledge: oral and written arithmetic. Different analyses (Nunes, Schliemann, & Carraher, 1993) suggested that the children's choice of which skill to use in solving problems was not based on ability. They chose written arithmetic when solving computation problems, typically encountered in school assignments, although they recognized that they did not know this as well as they knew 'how to do it in the head'. If presented with problems that resembled those encountered in the markets, where they were never observed to use paper and pencil, they used their oral arithmetic skill.

The differences between their success with oral arithmetic and their failures with written arithmetic could not be explained by ability: the two forms of arithmetic used the same logico-mathematical principles. Why then should children competent in oral arithmetic choose to use written arithmetic when solving problems, and thus risk failure?

Abreu, Bishop, and Pompeu (1997) attributed the children's choices to implicitly learned values: what teachers



A favorite site for the informal economy: the beach.

and children count as mathematics in school settings includes written but not oral arithmetic. As Goodnow (1990) and Hatano and Inagaki (1998) suggested, the socialization of cognition involves more than learning how to solve problems: it involves learning what counts as an elegant solution.

The unschooled and semi-schooled adults in our studies showed an insight into basic arithmetic and also into ratio, proportions and rational numbers. In spite of their sound mathematical ability, they often spoke about themselves as ‘not having a good head for learning’. This was particularly true of adults who had not learned to read but reported having tried to ‘pass for literates’; illiteracy for them was a sign of lack of intelligence (Nunes Carraher, 1988). Their views led me to wonder about the significance of literacy and schooling to our implicit, everyday conception of intelligence. This eventually led to the second line of investigation discussed here, teachers’ and pupils’ implicit conceptions of intelligence.

Teachers’ and pupils conceptions of intelligence

Many scholars have written about the role of literacy in different societies (e.g., Goody & Watt, 1968; Olson, 1996; Scribner & Cole, 1981). Is literacy really central to our conception of intelligence? Could this be part of the ‘common sense’ we learn in school?

My colleagues Jenni Pitkänen, Ursula Pretzlik, Jenny Olsson and Maria Emilia Nabuco (Pretzlik, Olsson, Nabuco, & Cruz, 2003) engaged with me in a series of studies designed to describe teachers’ and pupils’ implicit views of intelligence. Pitkänen (Pitkänen & Nunes, 2000) took the first step and analyzed how teachers’ judgments of their pupils’ ability correlate with standardized measures of verbal ability, literacy and numeracy. Teachers from two schools in London ranked their 6-year-old pupils on reading, mathematical and general ability, separately. The teachers’ judgments of the children’s mathematical and spelling ability were reasonably accurate: they correlated significantly with the corresponding standardized measure. Pitkänen then used a step-wise regression to see what explained most variance in the teachers’ judgments of the children’s intelligence: 70%

of the variance in the teachers’ judgments of their pupils’ intelligence was explained by their performance on a spelling test and 6% by performance on a vocabulary test. Performance on a mathematics standardized test did not contribute significantly to explaining any further variance. This suggests that teachers of 6-year-olds value literacy and verbal ability to such an extent in assessing their pupils’ intelligence that mathematical ability becomes unimportant.

Nunes, Pretzlik, and Olsson (2000) followed this study with another one, involving teachers of older children, also in London schools (mean ages 10y1m and 11y in two classes). Once again, the variance in teachers’ judgments of children’s intelligence was explained mostly by verbal and literacy measures (56%) but this time mathematics made a significant contribution also (6%).

This sample included six pupils who had been diagnosed as dyslexic using a discrepancy definition – i.e., their reading performance was significantly lower than expected from their measured intelligence. Although their performance in the intelligence test did not differ significantly from that of their peers, their teachers judged them as significantly less intelligent than their peers.

We also obtained the pupils’ judgments of themselves by using a child-friendly procedure. We took a photograph of each pupil in the class and asked the pupils to sort the photographs into three piles: as good as me, not as good as me, better than me. The procedure results in tied ranks that vary across children depending on how many photos are placed in each group. The child’s self-perception is the tied

rank for the group ‘as good as me’. The children did three sortings, one for reading, one for mathematics, and one for general learning ability. The pupils’ self-judgments correlated moderately and significantly with the corresponding standardized measures. A

regression analysis showed that, after controlling for measured ability, teacher’s judgments contributed significantly to pupils’ self-perceptions. Whereas measured ability explained 10% of the variance in pupils’ self-perceptions of their general learning ability, teachers’ judgments explained a further 37% of the variance after controlling for measured ability. The poor readers perceived themselves as significantly less intelligent than their peers, though there was no significant difference between the two groups’ measured intelligence. Thus pupils’ self-perceptions were reasonably realistic but highly related to socialization through the teacher’s eyes.

This method allowed us to consider whether pupils’ views are influenced by the teachers’ views in a short-term longitudinal study. Pupil measures (self-perception as learners of literacy and mathematics; assessments of literacy, mathematics and intelligence) were taken at the start and end of an academic year. Teacher measures (judgments of pupils’ ability in literacy, mathematics, and general intelligence) were collected at the beginning of the academic year. Two teachers in Greece and their 8-year-old pupils participated in the procedures described previously (Tsolaidou & Pretzlik, 2000). Regression analyses showed that the Greek teachers, like the English teachers, attributed greater weight to literacy than to mathematical ability in the implicit structure of their views of intelligence.

Further analyses showed that the teachers held an implicit notion that boys are better than girls in mathematics.

“‘commonsense’ we learn in school”



Neither at the beginning nor at the end of the academic year was there a significant difference between boys' and girls' performance in the mathematics assessment. However, the teachers judged the boys as significantly better in mathematics than the girls at the beginning of the year. When the children's judgments were analyzed, we found that they did not differ in their perceptions of girls' and boys' mathematical ability at the beginning of the year but at the end of the year their perceptions were in line with that of the teachers: boys were judged as significantly more able in mathematics as girls. Thus the pupils had learned the teachers' gender-related beliefs about mathematical ability. Such beliefs have been hypothesized as explanations for why girls underachieve in mathematics.

Conclusion

These studies suggest that socialization of cognition in school involves two types of learning: learning particular forms of skill – written language and written arithmetic – and learning beliefs about cognition. Written productions are valued both in literacy and mathematics classes. Thus written arithmetic 'counts' more as mathematics than oral arithmetic. However, the value of literacy is even greater than the value of mathematical ability. The majority of the variance in teachers' judgments of their pupils' intelligence is explained by literacy; mathematical performance makes a modest contribution to the prediction of teachers' judgments. Children who are poor readers, but nevertheless perform like their peers on intelligence tests, are perceived as less able by their teachers and by themselves. Finally, teachers who think that boys are better than girls in mathematics seem to influence their pupils, who at the end of the year make similar judgments.

Author Note The current president of Brazil, Luiz Inácio Lula da Silva, worked in the informal economy as a child and sold peanuts outside the main football stadium in São Paulo. During his government, child labor was made illegal and families with children of school age receive support to keep their children in school. Children now have little participation in the informal economy but can work alongside their parents during weekends.

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A Cultural-Historical Perspective on Children's Cognitive Development

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Children's learning takes place in social interaction with other more competent persons in home, kindergarten or school; practice in these institutions can be developmental

for a child when the practice challenges the child to enter into new activities and appropriate new motives and competencies (Bruner, 1999; Chaiklin; 2003, Hedegaard, 2002; Rogoff, 1990; 2003, Vygotsky, 1987).

Institutional Practice as the Foundation for Development of Societal as well as Personal Knowledge

Children first meet knowledge in family and community practices and through participation in this practice the child appropriates societal/collective knowledge. Collective knowledge is transformed into personal knowledge through the child’s own activity, and personal knowledge continues to develop whenever the child is introduced to new practices in the home, school, community and other institutions. Knowledge connected to practice is not only personal but transcends the single person and becomes ‘ideals’ in the form of collective societal knowledge (Iljenkov, 1977, p.92).

When knowledge transcends specific institutional practices and becomes generalized and used in other types of institutions, the form of knowledge becomes fossilized, as is the case for empirical, narrative and theoretical knowledge (Hedegaard 1999, 2002). Davydov’s (1990) distinction between empirical and theoretical forms of knowledge can be seen as different forms of fossilized knowledge that have transcended the specific institutions where they were developed. Bruner (1986) differentiates between narrative and empirical knowledge. Davydov’s and Bruner’s description of empirical knowledge refers to the same form of knowledge (Bruner, Goodnow & Austin, 1956; Davydov, 1988, 1972/1990). Theoretical knowledge helps the school child to structure his world into systems (Hedegaard, 1990, 1995b).

Development of Conceptual Competences Connected to Different Types of Social Practice in Different Age Periods

From a cultural historical perspective, the core in children’s development is motive and concept formation. I will draw especially on Leontiev (1978) and Elkonin’s (1999) theory of motive development and Vygotsky’s (1987) theory of the relation between everyday and scientific concept formation at school age.

Both Vygotsky (1998) and Elkonin (1999) describe six stages in children’s development. Elkonin specifies how these stages are related to different societal practice traditions in Western industrialized society. Vygotsky’s theory of crises in children’s development of competences at different developmental stages (1998, pp 187-205) can be seen as connected to Elkonin’s (1999) theory of developmental stages of motive orientation. Furthermore, Elkonin’s descriptions of the dialectic between the development of competence and motives can be connected with Bruner’s (1966) forms of representation and Wartofsky’s (1979) different levels of competence with artifacts to illustrate how developmental crises lead to new motive orientations and the development of new forms of competences (see Fig. 1).

Personal Development: Motive and Cognitive Development

Leontiev (1978) and Wartofsky (1979) argue that the child’s needs from the first satisfaction become cultural through the objects that satisfy them. From the child’s first encounter with the world, his/her biological needs are transformed into cultural needs and the development of the child’s perception and intention therefore become attached to/anchored in the artifacts and knowledge systems that

Figure 1. The relation between institutional practice, developmental age, motive orientation and personal competence

Institutions with different practice traditions	Developmental age	Motive orientation	Competence
Maternity ward Home	Crises of the newborn/Infancy	Orientation toward the caregiver (attachment)	Starting acquiring competence with visual orientation, (primary artifacts)
Home	Crises at age one/Early childhood	Orientation to the object and spatial world (object play)	Competence with action representation (enactive)
Kindergarten	Crisis at age three/Preschool age	Orientation towards other children and to the adult word (role play)	Competence with visual representation (iconic)
Primary School	Crisis at age seven /School age	Orientation towards mastering the adult world and to academic learning	Symbolic representation
Secondary School	Age of puberty/Crisis at age thirteen	Orientation to youth, life and friends	Connected system of knowledge (competence with secondary artifacts)
Work/Higher Education	Crises at age seventeen/Adolescence	Societal orientation	Experimentation within representational systems – (competence with tertiary artefacts)



exist and dominate in the institutions that the child becomes part of.

Motive Orientation

Each person has several motives and interests with some more important than others. These motives influence the person's choice of activities and how the person relates to other persons. Motives that dominate the person change throughout life (Elkonin, 1999).

For the small child, closeness with and tenderness from a caring person is important. But at some point, the exploration of the surrounding world becomes more important. Later, the child starts to orient towards peers and the play activity takes over as the dominant motive. This development is not inborn but is related to the western industrialized societal traditions of supporting preschool children's play activity (see Rogoff, 2003). For children 5 or 6 years old, they start to become interested in learning to read and calculate. To be able to explain the change and development of motives, I will distinguish between motives and motivation. Motives are connected to the type of activity or practice that dominates specific institutions (i.e., in kindergarten play, in school learning). Gradually, through the child's participation in institutional practices, these motives become an orientation that the child acquires. Motivation is related to the child's intentions in specific situations and can be characterized as the dynamic in a child's acting. A child does not need to have the motive orientation that dominates an activity when entering, but participation can lead to the child's acquisition of new motive orientations, if the activity is motivating. In school, this will happen either through its connection to earlier motive orientations, such as being with other children, or being together with an adult exploring the 'world'. In an educational situation, it is important to be aware of the child's motive orientation so that the activity is directed toward new upcoming motives. If the pedagogue, as in the following example, tries to create motivation and this is in conflict with the motive orientation of the child, this will instead create a conflict. In the following, I will exemplify this with an extract from an observational study of a five year old boy's activity in kindergarten. In this observation, the pedagogue wants to build close and tender relations with Jens, since Jens is viewed as too energetic. The pedagogue wants to calm him down. But Jens is oriented toward learning and appropriating 'a school child's competencies' and not being 'a small child'. It is not that Jens does not want tenderness and closeness but it should be subordinated to his dominant motive orientation of learning. So he becomes angry when the teacher holds him as a small child. Closeness and tenderness in this situation has to be given so that this supports the new dominant motive orientation in Jens' life.

Extract from observation of Jens (translated from Hedegaard, 1995)

Jens: "I have to write a letter".

The observer shows him how to write JENS and invites him to write underneath her writings.

He starts the task, but writes JES, and then inserts an 'N' when the observer shows him how one can write an N drawing two straight lines and combine them with a diagonal line.

"important to be aware of the child's motive orientation"

The pedagogue - Anita ask Jens again to come into the reading room and join her and Christina (a girl the same age as Jens).

Jens folds his paper with his name and tells that this is for his daddy.

The observer enters together with Jens.

Anita puts her arm around Jens and Christina while reading a fairy-tale.

Jens: "My dad will be angry".

Anita continues to read without listening to Jens.

Jens: "Do you hear my dad becomes angry, if you read that book".

He jumps up and runs around in the small room. Anita wants to put her arm around him again.

He becomes wild when she touches him and he runs out of the room. Anita runs after him.

They come back and Jens sits down reluctantly next to Christina so Anita cannot put her arm around him. The observer asks Jens to listen so he can explain to her what Anita is reading. This book is about whales and is rather technical. Anita says this is not such a successful choice for a book, but continues reading. Jens is very concentrated. She points at a picture and says: "This is a baby".

Jens comments: "That is not how a baby looks".

Anita: "Yes, whales!"

Jens: "Not baby whales". (Jens corrects Anita to show that he knows they are talking about whales).

This extract also illustrates Vygotsky point of crises connected with appropriation of a qualitatively new competence. Appropriation of new competencies and motives leads to revision or disappearance of earlier competencies. In Jens' case, being close to entering school, the child orients him/herself to academic competence as reading and writing. Play 'as if' is not satisfying any more. The child oriented toward entering school wants to do the 'real school activity' and that is what Jens is demonstrating, perhaps influenced by his dad, whom he tells does not appreciate the 'childish' book that the pedagogue is reading. When the pedagogue takes a 'school like' book about whales, Jens can sit calmly and listen concentrated.

Concept Formation.

One could expect that taking departure in the zone of proximal development one would have to individualize education and teaching in school to promote development. But this need not be the case because children from the moment they are born participate in activities in families and day-care institutions that have shared traditions or activities, so that pedagogues and teachers, when the children start in school, can expect that the children have shared experiences and competencies. According to the idea of the zone of proximal development, educational practices have to build on the child's everyday concepts but also to reach into the future where experiences can be created in school and combined with subject matter concepts (scientific concepts).

Vygotsky (1987) has associated everyday concepts with home and community life and scientific concepts with school

life. But these two forms of concept formation according to Vygotsky are each other's conditions in child development. Scientific concepts build on everyday concepts but scientific concepts also qualify the person's everyday concepts. Vygotsky shows that there is both a difference in the learning process and in the developmental process between the child's appropriations of the two types of concepts.

Learning

For the preschool child, the learning of everyday concepts is spontaneous and takes the form of imitation in a broad sense, which means imitating what a more competent person demonstrates in social situations. For the school child, learning is based on conscious voluntary orientation to instruction within the different school subjects (1987, p. 220).

Development

The difference in age period from preschool to school age is a difference in how the psychological functions relate to each other. Vygotsky's main point is that a person's psychological functioning is a unitary process. This means that developmental change that takes place in various functions, such as in the child's development of perception, logical memory and intentional attention, abstract thinking or scientific imagination, will influence each other and change the child's conscious relation to the world (1987, p. 189, 208).

Vygotsky used the empirical knowledge system as an "ideal model" to describe the child's conceptual development. Vygotsky did not have the possibility of questioning the empirical knowledge system, a possibility that first turned up with Davydov's distinction (1972/1990) between empirical and theoretical knowledge (see Hedegaard, in press).

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COMMENTARY: Moving from Sociocultural Perspectives To a Culturally Relevant Theory of Human Development

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The five papers in this special issue offer a fascinating discussion of both the roots and the flowering of sociocultural perspectives on cognitive development. The two primary roots stem first from Vygotsky, his colleagues, and intellectual descendents (see Cole, Karpov, and Hedegaard) and second from ethnographically



inspired cultural research (as represented by Correa-Chávez & Rogoff and Nunes), although cross-fertilization (to exhaust the metaphor) has clearly occurred.

Vygotsky's Theory

Readers with little prior knowledge of Vygotsky's cultural-historical theory other than the concept of the zone of proximal development should benefit from Cole's insistence that greater attention should be paid to the theory's focus on "historical" (i.e., developmental) aspects of engagement in culturally relevant activities and from Hedegaard's discussion of Vygotsky's view of developmental "crises" (stages of development) and the types of activities that predominate at each stage. Karpov focuses on the extent to which Vygotsky's colleagues and intellectual descendents ("neo-Vygotskian" activity theorists) either built on or diverted significantly from Vygotsky's theory, and concludes (correctly, I think) that activity theory is a logically consistent elaboration of Vygotsky's original ideas. The authors of the three other papers implicitly accept Karpov's position, choosing to link cultural-historical theory with activity theory (Cole), with sociocultural approaches (Correa-Chávez & Rogoff), or with the ideas of Leontiev, Davydov, and Elkonin (Hedegaard).

Culture and Schooling

A second benefit to be derived from these papers is to see the clear association between cognition and culturally organized ways of acting and interacting with others, particularly in relation to schooling. Nunes describes some of her earlier research in Brazil on the cognitive impact of learning and using mathematics principally on the streets, in the course of selling, or in school. As she points out, not only do children and adults come to think differently about mathematics but to think differently about themselves as a result of their different experiences. She broadens the discussion with data from England and Greece about the development of children's sense of their own abilities in school, stemming from teachers' perceptions based on gender rather than the children's tested abilities.

Two of the papers deal more with the different ways of thinking and communicating found among non- or semi-schooled cultures, for example in Liberia (Cole) or comparing indigenous groups in Latin America with schooled groups in the United States (Correa-Chávez & Rogoff). The latter, drawing principally from work on Mayan mother-child dyads in Guatemala and their middle-class counterparts in Salt Lake City, describe the different ways in which communication occurs and learning is facilitated. Intent participation is found in non-schooled groups, whereas "assembly-line instruction" features far more in societies in which schooling plays a major role.

This discussion of some of the authors' ideas does not do justice to the complexity of their positions, even as represented in these brief papers that only touch on the authors' impressive bodies of thinking and research. In fact, I think that the positions presented here are perhaps better thought of leading us towards a culturally relevant theory of human development, far more than simply being "sociocultural perspectives on cognitive development."

Cognitive Development

Although each of the authors deals with cognition, with particular emphasis on the impact of schooling on thinking, their focus is in fact far broader. Correa-Chávez and Rogoff argue cogently that it

makes little sense to separate cognitive and social development and discuss the social and cultural nature of communicative practices. Hedegaard shows clearly why one has to consider children's motivations to understand their learning, and Nunes deals with children's and adults' self-perceptions. What about cognitive development per se? Cole argues explicitly that a "genetic (historical) analysis" is essential, and provides data about changes in reasoning that are associated with rapid cultural change. However, although Karpov describes the ways in which Vygotsky's theory has developed since his death and Nunes provides a little longitudinal data, for the most part their research is discussed in non-developmental ways, whether considering stages of development (Hedegaard) or children's experiences in different groups (Correa-Chávez & Rogoff and Nunes' work in Brazil).

Sociocultural Perspectives

Why is there little overt focus on development (whether at the level of the culture or the individual) in these papers? Cole argues that the change in terminology (specifically from "cultural-historical" to "sociocultural") may, in part, be to blame. My belief is that research within this general area (of the cultural nature of human development) needs to be clearly theory-driven and must use appropriate methods and units of analysis. Is this possible? Scholars dealing with cultural issues either from a positivistic cross-cultural position (e.g., Adamopoulos & Lonner, 2001) or from a more ethnographically oriented cultural psychology (e.g., Super & Harkness, 1997) have argued that there is neither a clear set of theoretical principles nor a related set of methods associated with the position that the individual and the context are inseparably linked.

Towards a Culturally Relevant Theory of Human Development

By contrast, I think that the ideas expressed in these papers, most explicitly by Cole, could all fit within a fully fledged theory of human development that has, at its center, the everyday activities in which individuals engage, alone and with others. How those activities proceed necessarily varies by characteristics of the individual or individuals (age, gender, experience, motivation, etc.) engaging in the activities, the relationships among any interacting individuals, and by relevant aspects of the context (from the immediate setting to the culture), all of which change over time. By culture I mean a group of people who share a sense of identity, who share values and belief systems, practices, resources, etc., and who attempt to pass on those values, beliefs, and practices to the next generation. Depending on the focus of attention, this definition may be applicable both to an entire society and to different cultural groups within any society.

Such a theory is necessarily developmental, examining changes at multiple levels (including the individual, the activity, and the context) in a systemic way. With an appropriate theory of human development we can avoid the problems of thinking about culture as an independent variable, one that "causes" development to occur, but examine multidirectional influences at all levels of the system. Moreover, such a theory helps us to consider within-society cultural differences, and the problems that occur when cultural groups within society not only have different sets of values, beliefs, and practices but that some of those sets are more obviously linked to power, prestige, and access to resources within that society than are others.

As mentioned earlier, theory and methods need to be consistent with one another (Tudge & Hogan, 2005; Winegar, 1997). Cole, Correa-Chávez and Rogoff, and Nunes all mention the difficulties of using “traditional” (i.e., experimental, from a positivist or mechanistic paradigm) methods to understand the links between culture and thinking. An ethnographic method is more appropriate, being “the most important method in the study of human development because it ensures that the cultural place will be incorporated into understanding development” (Weisner, 1996, p. 306).

One illustration of the advantages of using methods that are tied to theory can be taken from the work of Rogoff and her colleagues. Correa-Chávez and Rogoff note that middle-class mothers in the US are far more likely to use verbal instruction with their children than are mothers from non-schooled groups. Their findings are based, in part, on research involving quasi-experimental methods, albeit taken into the field, introducing novel toys to mothers and their children in different cultures and observing the patterns of communication (Rogoff, Mistry, Göncü, & Mosier, 1993). These between-group differences may be magnified, however, by the specific methods used; middle-class US mothers are more likely to be highly verbal with their children when observed in some types of experimental tasks (Graves & Glick, 1978) than when simply observed carrying out their everyday activities. Using more ethnographic observations of everyday activities, Morelli and her colleagues (Morelli, Rogoff, & Angelillo, 2003) show that these types of didactic lessons occur less than 5% of the time even among middle-class US families, although still more frequently than among non-schooled groups. Moreover, a theory that explicitly calls attention to within-society in addition to cross-society cultural variations would help us understand the varying impacts of growing up in a schooled society. For example, middle-class White mothers in the United States are more likely to involve their children in didactic lessons than are mothers from other racial/ethnic or socioeconomic groups within the same society (Dickinson & Tabors, 2001; Tudge, Otero, Hogan & Etz, 2003; Tudge, Doucet, Otero, Sperb, Piccinini & Lopes, 2005).

Do we have such a theory of human development that appropriately links development, individuals, activities, and culture? Vygotsky and his followers pointed us in the right direction, and we now have the benefit of much more “sociocultural” research as well as more recent systemic theories of human development (e.g., Bronfenbrenner & Morris, 1998; Cairns, Elder & Costello, 1996). The authors of these stimulating papers are building on firm foundations and helping us to move beyond sociocultural perspectives on cognitive development towards a culturally appropriate theory of human development.

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COMMENTARY: Variations on Mediation and Learning

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Ference Marton emphasizes that variation is the mother of good learning (e.g., Marton & Trigwell, 2000). Visible differences alert us



to seek their causes, dimensions and possible explanatory constructs. In this light, it is inspiring to find differences in a set of papers with a shared point of departure – the cultural nature of development. I will discuss two themes in which such useful differences are displayed: mediation and learning.

Mediation

Michael Cole (this issue) writes about “a double-sided process in which mediation of action through and with other people (often referred to as modes of participation) and mediation of action focused on mastery of the physical world are always part of a single, dual-directional system of cultural mediation.” Yuri Karpov (this issue) also talks of mediation as a dual process: “the first aspect of mediation relates to children’s mastery of new psychological tools, which become internalized and come to mediate the child’s mental processes. The second component of mediation relates to the role of adults as mediators of children’s acquisition and mastery of new psychological tools.”

Maricela Correa-Chavez and Barbara Rogoff (this issue) argue that “social engagement and communication are a key aspect of cognitive development.” The authors point out that the separation of cognitive development and social development is seriously outdated. They suggest that the divide may be overcome by focusing on communication as a cognitive process.

LevVygotsky (e.g., 1999) wrote of the dual nature of mediation in at least two different but closely interrelated senses. The first sense was the relationship between tools and signs. Tools are oriented at external objects, signs are oriented at people and eventually at the subject him- or herself. Higher psychological processes are characterized by the coming together of tools and signs.

The second sense was that of ‘double stimulation’. An intentional action, the hallmark of higher psychological processes, arises when human beings face an ambiguous or problematic situation and resolve it by constructing an external mediational device that helps them take the decisive action. Thus, when a group

of people negotiate a deadline for their joint work and write it down in their calendars, they construct a second stimulus, a mediating sign that helps them control their own action from the outside. This sense of the dual nature of mediation is essentially the question of the emergence of agency, or will, as Vygotsky called it. This agentic aspect of mediation has not been very actively studied and discussed by contemporary scholars. Yet it is of crucial importance if we are interested in emancipation and empowerment (Engeström, 2005, Chapter 5).

Learning

Correa-Chavez and Rogoff contrast two cultural modes of learning which they call intent participation and assembly-line instruction. The former is associated with shared community activities, the latter with formal schooling. The distinction echoes many earlier similar contrasts, from Jules Henry (1965) to Jean Lave and Etienne Wenger (1991).

Terezinha Nunes (this issue) also writes about two types of learning: “learning particular forms of skill – written language and written arithmetic – and learning beliefs about cognition.” This distinction, too, echoes many earlier ones, from Gregory Bateson (1972) to Chris Argyris (1992).

Finally, Mariane Hedegaard (this issue) offers another dual characterization of types of learning. On the one hand, there is spontaneous imitation that leads to everyday concepts. On the other hand, there is conscious voluntary learning within instruction.

Contrasts such as these can be very illuminating. At the same time, in their duality they are obviously crude simplifications that lack historical specificity. Thus, they tend to be treated as closed and mutually exclusive ideal types rather than real-life formations which are often inconsistent mixtures that may also shift and change. A modest step toward countering this tendency is to employ minimally two dimensions that yield a four-field matrix instead of a dualistic representation of types of learning. Figure 1 depicts one such attempt.

In Figure 1, processes of learning are differentiated along two key dimensions, one representing the given vs. newly

“social engagement and communication are a key aspect of cognitive development”

Figure 1. Four types of learning (Engelström, 2004)

		EXPLORATION			
OLD OBJECT OLD ACTIVITY	INCREMENTAL EXPLORATION –Structuring (Norman, 1982) –Articulation (Spinosa, Flores & Dreyfuss, 1997) CONTEXT OF EXPERIMENTATION	RADICAL EXPLORATION –Expansion (Engelström, 1987) –Reconfiguration (Spinosa, Flores & Dreyfuss, 1997) CONTEXT OF TRANSFORMATION	NEW OBJECT NEW ACTIVITY		
	ADJUSTABLE EXPLOITATION –Tuning (Norman, 1982) –Customary disclosing (Spinosa, Flores & Dreyfuss, 1997) CONTEXT OF PARTICIPATION	TRANSFERABLE EXPLOITATION –Accretion (Norman, 1982) –Cross-appropriation (Spinosa, Flores & Dreyfuss, 1997) CONTEXT OF TRANSMISSION			
		EXPLOITATION			

emerging nature of the object and activity to be mastered, the other one representing the distinction between exploitation of existing knowledge vs. exploration for new knowledge put forward by James March (1991).

Transferable exploitation (the lower right-hand field of the matrix) is transmission of existing knowledge in order to cope with a new object and a new activity. Traditional school learning often resembles this, being largely aimed at the mastery of children's future life activities. Don Norman's (1982) concept of accretion and the more recent concept of cross-appropriation (Spinosa, Flores & Dreyfus, 1997) illuminate different aspects of this type of learning.

Adjustable exploitation is gradual acquisition and internalization of the existing knowledge and skills embedded in the given activity. Elements of this type of learning are manifest in apprenticeship-type settings. Norman describes it as tuning, and Spinosa, Flores and Dreyfus as customary disclosing,

Incremental exploration is construction of new knowledge by experimentation within the given activity. Norman talks about this type of learning as structuring, while Spinosa, Flores and Dreyfus characterize it as articulation. Features of this type of learning may be found in various project-based and problem-based learning programs.

Radical exploration, or expansive learning (the upper right-hand field of the matrix), begins when experimentation is not any more aimed only at making a well-bounded new solution work in the framework of a given, pre-existing activity. Radical exploration is learning what is not yet there. It is creation of new knowledge and new practices for a newly emerging activity, that is, learning embedded in and constitutive of qualitative transformation of the entire activity system. Radical exploration is the most poorly understood and historically most interesting type of learning. It is what the theory of expansive learning (Engeström, 1987) is focused on, and what Bateson called Learning III and Spinosa, Flores and Dreyfus call reconfiguration.

The four types of learning are not mutually exclusive. To the contrary, as shown already by Bateson, complex learning processes such as expansive Learning III involve sub-processes or layers of the other types of learning. But these gain a different meaning, motive and perspective as constituents of the expansive process.

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COMMENTARY: The Dynamic Interplay of Culture and Development

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The authors of this set of papers all ground their work in the sociocultural and cultural historical activity theories as based on the work of Vygotsky, Luria and other Soviet scholars. The basic presumption of these approaches is that culture is inextricably intertwined with cognition, communication, attention and social behavior, implying that culture and the psychology of the individual are mutually constitutive of each other. These conceptions of cultural psychologies locate the embodiment and the emergence of these

processes in everyday activities as situated in families, communities and institutions. They emphasize that genetic developmental analysis is vital to the understanding of any psychological processes as suggested by Vygotsky (and equally outlined in Piaget's genetic epistemology). Despite the common understanding of these theoretical cornerstones, the papers express quite diverse and also sometimes surprisingly general conceptions of development as well as of the context and culture of everyday activities. In the following I will comment on these two aspects and conclude with a proposal to specify development and culture in one framework.

Genetic Developmental Analysis

Cultural psychologies address all domains of development: phylogenetic, ontogenetic, microgenetic and historical development, yet to different degrees. However, these dimensions are interrelated in complex ways and the conceptualization of these relations is vital for the analysis of developmental phenomena. Nevertheless most of the authors concentrate on one dimension without putting the other dimensions into perspective. Especially, a closer analysis of the phylogenetic dimension, i.e., the evolutionary base of behavior and development and the analysis of historical change (see e.g. Cole, this issue) would help to better understand the cultural nature of humans (Rogoff, 2003). Evolutionary theories share with cultural psychologies the assumption of the primacy of social relations also for the development of cognition. Yet the question of why these capacities have evolved substantiates the analysis of how behavior is appropriated and development substantiated in social context (Keller, 2003).

It is surprising that in some essays a rather static concept of development is promoted, neglecting the dynamic nature of continuity and change over the lifespan. For example, Karpov's analysis differentiates childhood (children learn to master psychological tools) and adulthood (adults master the tools and have developed higher mental processes) in the sense of self-contained and bounded entities. Moreover, most of the essays start their considerations with the reflexive child and are thus bound largely to language, sign and symbols as psychological tools. Hedegaard offers a broader developmental



framework, yet neglects the developmental dynamics within and between the phases and locates it exclusively within the Western individualistic worldview as she acknowledges herself, thus ignoring the socialization models of the "majority world" (Kağitçibaşı, 1996). Yet, the prelinguistic child also participates in cultural contexts and acquires culture actively. These early developmental processes are embodied in first developmental results that logically and empirically relate to later developmental processes (Keller, Yovsi, Borke, Kärtner, Jensen & Papaligoura, 2004). Finally, not only culture and cognition are mutually constitutive, but also culture and development. Thus, the separation of the processes of acquisition and the mental processes (Karpov) denies this mutuality and the co-constructive processes of development.

Culture or Context?

Michael Cole defines culture in his essay as "...the collective problem solving toolkits of individual social groups in response to their historical and ecological circumstances". The reference to ecological and historical circumstances implies a dynamic interrelationship of culture and context. As the impact of formal schooling on attentional processes (Rogoff), mathematical skills (Nunez) and learning in general (Cole) demonstrates, formal education powerfully transforms culture. There are other parameters that need to be taken into consideration. Cultural orientations change with age, they differ with respect to gender; they are sensitive to family composition and economy. Are these confounding variables or the constitutive elements of culture? It can be demonstrated that the socialization goals and parenting strategies of middle-class families in different cultures are more similar than the socialization goals and parenting strategies of urban middle-class and poor farming families within the same culture. Formal education and economic security is associated with later parenthood, less children and more parental investment, in terms of exclusive attention with face-to-face orientation, irrespective of the culture of origin. Lower levels of education and subsistence-based economy is associated with earlier parenthood, more children and co-occurring patterns of care with less dyadic involvement (e.g. Abels, Keller, Mohite, Mankodi, Shastri, Bhargava, Jasrai & Lakhani, in press). More conceptual and empirical analysis is needed to understand the relations between culture in terms of contextual parameters and culture as inside the individual in terms of everyday psychology and cultural tools, including mutual processes of transformation and change.

A Proposal

In order to address these issues, we have proposed and presented first empirical evidence for conceptions of the lifespan as a culturally informed developmental pathway (Greenfield, Keller, Maynard & Suzuki, 2004; Keller, 2003; Keller & Greenfield, 2000; Keller et al., 2004). We understand the lifespan as patterned by universal developmental tasks that evolved to solve particular adaptation problems of our ancestors. Moreover humans are equipped with a universal repertoire of behavioral predispositions to solve these developmental tasks. Contextual parameters prioritize particular styles as more adaptive than others and thus create external and internal cultural environments. Due to the

"there are other parameters that need to be taken into consideration"

necessary plasticity of humans, adaptive behavioral strategies are individually acquired and co-constructed with guided participation within the zone of proximal development. Thus, development represents the interface and dynamic interplay between biological predispositions and cultural contextual information. The development of a relational matrix can be regarded as the first integrative developmental task that has to be solved during the early months of life. Infants as well as caregivers are equipped with behavioral predispositions (e.g., infant's preference for the human face and contingency detection mechanisms and parental intuitive parenting programs). The cultural context selects and prioritizes the strategies from the universal repertoire which promise adaptational value. Particular parenting strategies have consequences for the interparenting and timing of the next developmental tasks. We could demonstrate that German and Greek toddlers from educated middle-class families who experienced primarily parenting in terms of face-to-face contact, contingent responsiveness and object play develop self recognition earlier than Cameroonian Nso toddlers from low educated rural farming families. The Nso toddlers, who had experienced body contact and body stimulation as primary parenting systems, developed self regulation earlier than the German and the Greek toddlers (Keller et al., 2004; Keller, Kärtner, Borke, Yovsi & Kleis, 2005). Thus, the cultural environment prioritizes strategies from a universal repertoire that accelerate the developmental achievements that correspond to the preferred expressions of autonomy and relatedness. This understanding necessitates multicultural analyses, since monocultural analysis may help to understand to some degree the particular culture, but it does not help to understand development.

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Notes from The President

If you have been following these Notes over the past year or so, you will know of my ongoing negotiations on behalf of ISSBD to secure a new contract for the publication of our journal, the International Journal of Behavioral Development (IJBD) that would not only be more financially beneficial to the Society but also involve the take-over of some administrative tasks to ease the burden placed on our volunteer officers. As I had hoped in my last Notes, I can now report that a decision was reached and that a new contract was signed with Sage Publications, London, in December, 2004. The process leading up to this decision was far-reaching and thorough, involving extensive discussions with all parties involved (Steering Committee, Executive Committee, Editors of the Journal and the Newsletter, Psychology Press, and Sage). Psychology Press (formerly Erlbaum UK) had published IJBD for several years and our relationship with Psychology Press overall was very good with little grounds for complaint in any of our general dealings with the company. In fact, both the Editors of the Journal and the Newsletter reported being satisfied with their day to day contact with the publishers, and being sad at losing contact with the people who worked there. However, in an increasingly risky world, where only the most financially secure Societies are likely to survive, it was vital to ensure ISSBD is on the best possible financial footing, not just now but in the future. During negotiations it became clear that IJBD was a highly prized asset and one through which the Society could receive considerably more revenue than it had done so previously, or than Psychology Press was prepared to offer. Further, I was impressed with the enthusiasm, vigor and professionalism with which Sage tailored its offer to meet our requirements above and beyond publishing the Journal and with their proactive stance to promoting both the Journal and ISSBD. This was evident both during visits by Sage's representatives to my office in Jena (Germany) and during a visit to Sage's office in London last summer.

A draft contract (which had already been amended following close scrutiny by the Jena office) was submitted to the EC (also involving the Journal and Newsletter Editors) for their comment. Following receipt of some points for consideration, the contract, where appropriate, was amended further. The new contract was duly signed by myself as President on behalf of ISSBD and by Leo Walford as Associate Director, Journal Publishing on behalf of Sage.

As Sage, to our relief, will take over the administration of membership and other supports for ISSBD before they actually take over publishing responsibilities in January 2006, I was invited to London for an early planning meeting. Due to scheduling conflicts, I asked Verona Christmas-Best to go there in my stead. (Verona, a PhD from the University of London with considerable experience with journal publishing, has worked with me in science administration for several years and has been involved in the proceedings to find a new publisher from the beginning.) The meeting, which took place in late December, 2004, was very positive and productive. The Sage team that will be responsible for all matters relating to ISSBD was already well advanced in planning for the take over and had a well-formed action plan and draft publicity material for discussion. They are looking forward to meeting the editors of the Journal and Newsletter, and the President sometime in the New Year.

With regard to membership administration, discussions have already commenced between Sage and Fred Vondracek (our acting Membership Secretary/Treasurer). To make the transfer process as painless as possible and in order to avoid unnecessary confusion, the recommendation of the Membership Secretary is for Sage to commence handling membership administration in March 2005, following the process of membership renewal that begins each November. Reminders are sent to members who still have not renewed their membership early in the New Year and by March there are typically 100-200 members who have not responded. These will be followed up and reminded again by the membership team at Sage. Paper records relating to membership will also be transferred at this time.

I have also liaised with Psychology Press and they have assured me of their full cooperation with Sage in the transfer of matters related to IJBD and the Newsletter, and the web site. In Jena we have also started by transferring useful archive material such as back issues of IJBD, the Membership Directory, and pre-web copies of the Newsletter. Once again, let me mention here the good memories we will take away with us of the years ISSBD worked with Psychology Press, and let me thank in particular Rohays Perry and Kirsten Buchanan for all their efforts on behalf of IJBD, the Newsletter, and the Society in general.

With regard to the Journal, following a request from the Editor Bill Bukowski, it has been decided that the web-based manuscript handling system negotiated as part of the new contract with Sage will not be installed until a new editor begins handling new manuscripts in July 2007 prior to full take-over of the Editorship as of January 1, 2008). When it is operational, among many other things the new system will enable manuscripts and reviews etc. to be submitted and handled on-line through the Journal page on the Society's website. The website itself will be upgraded in due course to an interactive system with password controlled secure areas that will enable tasks such as elections to be conducted on-line – as is already the case with many other learned Societies. I should perhaps mention that this is all at no extra cost to the Society.

Finally, among the many advantages that the move to Sage will bring there is one very good piece of news that I want to pass on immediately. As of January 2006 all members of ISSBD will have free (password-controlled) access to full text articles of all journals appearing on the internet platform Sage Online (previously referred to as Highwire). In addition, there will be a link from all IJBD on-line articles to the ISSBD homepage (thus helping to expand the visibility of the Society) and to the Society's Newsletter. It is planned for Michael Carmichael of Sage to attend the EC meeting on the occasion of SRCO in Atlanta in April where he can provide more information about this and other aspects of the services Sage will provide.

Now to other matters: Among the many varied issues that arise and which require my attention as President, I have been particularly involved with helping to organize the Moscow regional workshop that will take place June 20-23, 2005. The principal local organizer is Tatiana Yermolova of the Russian Academy of Education in Moscow, and Avshalom Caspi and Ken Rubin have been working with me as co-organizers from ISSBD. Seen against a backdrop of the



role of self-regulation particularly in times of precarious social change, this workshop is of particular relevance for scholars of human development in countries undergoing rapid social and political change (e.g., Russia) and is designed to help them draw from the best of research on self-regulation within a dynamic paradigm of human development in social context. More information on the workshop can be found on the workshop web site (<http://www.devteam.ru/issbd/index.htm>) or via the link from the ISSBD web page (<http://www.issbd.org>). I will make a pre-workshop trip to Moscow in April (fortunately funded by the DAAD, the German academic exchange service) to meet local organizers and to discuss final preparations.

Beyond the specific aims just described, the general goal of the workshop is to facilitate scientific and cultural exchange between young scholars from Russia and surrounding countries and more senior colleagues from across the world who can transfer achievements in research on emotional and behavioral regulation in a context-sensitive framework of human development. As well as being informed about recent developments in the field of human self regulation, and learning from their senior colleagues about the latest issues and techniques of scientific research and application in the study of this aspect of human development, the young participants will be able to present and discuss their own research with some of the foremost scholars in the area. It is also hoped that the workshop will lead to new individual or joint projects on the topic being instigated.

Still with regional workshops in mind, I can also report that I have been corresponding with Avi Sagi-Schwarz with regard to a workshop in Israel - working title "Chronic exposure to catastrophic war experiences and political violence: Links to the well being of children and their families" and with Mambwe Kaseke-Hara over a potential regional workshop in (South) Africa following on from the successful meeting organized by Bame Nsamenang and colleagues last year in Cameroon. I have also been in correspondence with John Schulenberg (together with Jari Nurmi and Lisa Crocket) over a proposed workshop (organized together with Jari Nurmi and Lisa Crocket) that would take place in spring 2007 - working title, 'Developmental Transitions as Turning Points: An International Workshop on Theoretical and Methodological Perspectives'. Originally planned to take place at the University of Michigan, Ann Arbor, in May or Early June, 2006, this workshop has been rescheduled for 2007 primarily to avoid a clash with the 2006 ISSBD Biennial Meetings in Melbourne.

With Melbourne and the 2006 Meetings in mind, I have also been in regular contact with Ann Sanson of the University of Melbourne (formerly of the Australian Institute of Family Studies) and head of the local organizers, over various issues related to the Meetings themselves and to the pre-conference workshop. The International Program Committee for the 2006 Biennial Meetings is in place and things are pretty well on schedule. A letter to keynote and other invited speakers will go out soon following intensive discussions with the International Program Committee. The budget has been optimized, in close consultation with the Treasurer and myself, so as to allow maximum flexibility concerning attendance as well as encouraging membership. As done by other well-known international societies in our field,

ISSBD supports Meetings with a sizable up-front loan (up to which amount we also cover any loss, although this is almost never necessary). This provides the local organizers with a basic fund with which to work and to allow start-up. In light of this, our colleagues in Australia lead by Ann Sanson have been working to find the best organizational structure that will offer the greatest flexibility and guarantee a successful congress. All in all progress is being made, so do visit the website at <http://www.issbd2006.com.au/> for more information and details as they become available.

This year sees the start of a search for new editors for the Newsletter. The current editors' term of office finishes at the end of this year and the Society's constitution does not allow consecutive terms of office. Although they will be thanked more fully at a later occasion, I should like to take this opportunity to express my thanks to Joan Miller and Xinyin Chen for their sterling work over the last 6 years. Under their auspices the Newsletter has gone from strength to strength - so much so that it is a highly reputable publication in its own right. For more information please see the announcement in this issue of the Newsletter, and if you are interested then don't hesitate to contact me, the Editors, or anyone on the EC.

We are also starting a search for new Membership Secretary and Treasurer to replace the Society's acting Treasurer and Membership Secretary, Fred Vondracek, who so nobly stepped into the breach when the former post-holder Barry Schneider stepped down early. As already noted, he will hand over the membership side of things to Sage in March but will continue as Treasurer until the end of the year. I have been in contact with him to draw up guidelines for finding a replacement and these are now with the Executive Committee for their comment. An announcement will appear later in the year but anyone interested should not hesitate to contact myself or the General Secretary, Jari Nurmi. Again, thanks to Fred and to Becky Reese, Fred's assistant who has worked with him on membership issues.

By the time you read this, the next meeting of the Executive Committee will have taken place at the SRCD, Biennial Meeting in Atlanta. We will have much to discuss, including many of the topics I have raised here but also issues concerning, for example, membership - how to encourage younger blood, how to ensure existing members remain, how to get members to stand for office and to be more involved in the running of the Society, and how to adjust membership dues so as to support membership in all areas of the world. If you have any ideas concerning membership, or indeed any issue you would like to be discussed by the EC, please let me or our General Secretary General, Jari Nurmi know issbd.nurmi@psyka.jyu.fi. (I am aware this offer is too late for the Atlanta meeting but the EC is in frequent contact outside of our regular meetings.)

Finally, I hope this finds you having enjoyed a well earned winter break. As I write this in mid-February we are deep in snow, and with the promise of much more to come, but nothing like the problems currently facing other areas of the world. Please do remember I and my office are very happy to hear from you if you feel there is anything with which we can help. To contact me, simply email Rainer.Silbereisen@uni-jena.de

Rainer K. Silbereisen, Ph.D.

Minutes of the ISSBD Executive Committee Meeting:

Ghent, Belgium, 2004 and the General Business Meeting, July 14th, 2004

Times: Executive Committee Meeting (EC) July 11th 8.30. – 16.30, General Business Meeting (GBM) July 14th 16.00 – 17.30.

Members of the EC present: Avshalom Caspi, Xinyin Chen, Patricia Greenfield, Jari-Erik Nurmi (Secretary General), Candida Peterson, Kenneth Rubin (Past-president), Abraham Sagi-Schwartz, Rainer K. Silbereisen (President), Peter K. Smith, Suman Verma.

Editors present: William Bukowski (IJBD), Xinyin Chen (Newsletter), Joan Miller (Newsletter).

Ad hoc advisors present: Bame Nsamenang, Silvia Koller, Tatiana Yermolova.

Newly elected members of the EC present: W. Andrew Collins, Anne C. Petersen (President-elect), Arnold Sameroff, Marcel van Aken.

Apologies for absence received from: Fred Vondracek (Acting Treasurer/Membership Secretary), Roger Dixon.

In attendance for a particular item: Verona Christmas-Best, Ziyad Marar (Sage), Rohays Perry (Psychology Press), Ann Sanson (XIVth Meetings), Leni Verhofstad-Denève (XVIIIth Meetings), Leo Walford (Sage).

1. Opening

The President, Rainer K. Silbereisen, welcomed the EC members, ad hoc members and editors.

2. Minutes of the EC Meeting in 2003

The Minutes of the EC Meeting in Tampa, U.S., April 24, 2003, published in Newsletter 2003 (2), Serial No 44, pages 18-21, were approved unanimously.

3. President's Report

President Rainer K. Silbereisen summarized his written report on the development of, and plans for, the Society as follows: besides more routine tasks, such as keeping in contact with others to run the Society, a great deal of time was spent on continuing negotiations for an efficient and cost-effective solution to handle some of ISSBD's affairs and, in particular, to find a more beneficial contract for the publication of the International Journal of Behavioral Development (IJBD). Much time was also spent on working with the organizers of the biennial meetings, and with those of the various regional workshops. Further, much time was devoted to working with the Acting Membership Secretary and Treasurer, Fred Vondracek, in trying to unravel the somewhat precarious situation the Society had faced following the resignation of the former incumbent. All major activities were conducted while keeping the Steering Committee fully informed. In particular, regular exchanges took place with the Secretary General, Jari-Erik Nurmi, concerning many society-related activities, such as the recent EC elections and preparations for the EC meeting in Ghent. In addition, all recipients of the Newsletter were kept regularly informed through the Notes from the President.

Concerning the publishing contract and management services, offers were requested from Sage and from Psychology Press to handle all the existing services provided by the current publishers, plus offering support related to the work of the Membership Secretary and Treasurer, such as collecting membership dues and sending reminders of dues not paid, and providing a highly sophisticated web-based manuscript handling system in support of the IJBD editorial office. The offers were convened to the Steering Committee, and the Editor William Bukowski.

Together with the organizers of the Ghent meetings, i.e., Leni Verhofstad-Denève (meetings chair), Marcel van Aken, and Caroline Braet (workshop coordinators), an application was made to the Jacobs Foundation. Subsequently, the

Foundation agreed to provide funds to enable young scholars from countries with currency restrictions to attend the Society's workshop and meetings. Following a rigorous selection procedure, more than 70 young scholars were selected to attend the pre-conference workshop out of which about 20 participated directly due to sponsorship from the Foundation. The congress as such was sponsored by the Flemish Community, French and Flemish Scientific Foundations, the province, and the town and University of Ghent.

At the Ghent meetings, the number of submissions for posters and symposia was astoundingly high. This meant that some people were not successful and that the organizers were unable to fulfill their hopes this time. However, everything possible was done to offer an adequate alternative for active participation. Eventually about 90 paper symposia, 30 poster symposia, and more than 800 individual posters were selected. In addition, three scientific 'get-together' sessions were organized of which the Young Scholars' Initiative (thanks here to Deepali Sharma for all her hard work) seems to have attracted a lot of interest. Together with the 12 keynote addresses and 7 invited symposia the conference was seen as promising to be a highly dynamic and scientifically appealing event.

Since receiving the first draft proposal for the 2006 ISSBD Biennial Meetings in Melbourne, the President's office has been highly involved with the meeting's organizer, Ann Sanson, and her colleagues concerning both general planning issues and, especially, the budget. The process has taken somewhat longer than expected due to some extended periods in which activities in Australia had to be put on hold. In relation to financial issues relating to the congress, the point was made that the bottom line of contracts between learned societies and the organizers of their congresses is that the planning and budgeting are done so as to minimize the chance of a loss. In the discussions, the President and Ann Sanson agreed on a special formula for sharing possible gains/losses. All in all, the proposal and budget for the 2006 congress are highly professional and Ann Sanson and her team are to be congratulated on their sterling work. Melbourne is a perfect place to go.

A proposal was also received from Wolfgang Schneider for the 20th Biennial Meetings to be held in 2008 in Wuerzburg, Germany. A good reason for holding the meetings in Germany is that the 2008 World Congress of Psychology will be held in Berlin.

Recent experience suggests that there is a need for the Society to have in place detailed guidelines to assist would-be



meetings organizers in understanding what will be expected of them, the nature of their involvement, the role and limit of responsibility of the Society, and in particular, the financial arrangements for any profit or loss meetings might incur. To this end, the President has started to draft guidelines for those wishing to submit proposals for organizing future meetings.

The President has also, together with the Steering Committee, worked with Bame Nsamenang to revise the draft program and budget of the 6th Africa Workshop 2004 to ensure the support of the President of the University of Yaounde, and to generally steer the workshop's progress. The workshop entitled 'HIV/AIDS and African youth: Theory, research and practice with youth in peer education, families and communities' is planned for 25-31 July, 2004.

Some considerable time ago Kenneth Rubin suggested holding one of ISSBD's regional workshops in Moscow under the guidance of Tatiana Yermolova of the Russian Academy of Education. The tentative topic was emotion regulation. In conjunction with Kenneth Rubin and the President, the topic was broadened to include issues relevant to social change and adjustment, and it was also recommended to enlarge the institutional representation and support. The Workshop will take place in Moscow during 2005.

A proposal was made some time ago for a workshop on 'Chronic exposure to catastrophic war experiences and political violence'. Following further discussions between the President and Avi Sagi-Schwartz, particularly concerning rationale and potential location, a proposal was received for a workshop to be held in Israel in 2005. This workshop aims at discussing the role of risk and protective factors in determining the debilitating and damaging effects of chronic catastrophic experiences on the future well-being of children and their families, and the extent to which such children may themselves become a source of threat to the society.

Similarly, Willem Kooops, together with Frank Kessel, proposed to the Society organizing of a workshop in South Africa. They have also already found several local people who are interested in making the local arrangements for the workshop.

The President has been in regular contact with the Society's Acting Treasurer and Membership Secretary, Fred Vondracek, and knows that he has been involved in strenuous activities on behalf of the Society. In particular, he has been in close contact with the former Treasurer and Membership Secretary, Barry Schneider, in order to complete the transfer of the Society's financial matters from Canada to the US. This has proved to be extremely complex and time-consuming. The Society should be grateful to Fred Vondracek for efforts that have been definitely 'above and beyond the call of duty'. Vondracek has also been working to optimize the Society's financial affairs and to bring the administrative procedures related to them up to date. Thanks are also due to Brett Laursen for all his help in these matters. Overall, the Society is in good shape and can afford new activities.

Fred Vondracek has also spent a lot of time in dealing with membership issues, often related to dues and journal delivery. He has also worked closely with Leni Verhofstad-Denève to set up a membership package for non-ISSBD members paying congress fees in Ghent. Overall membership (as of June 2004) stands at 1,118, of which 615 are full fee-paying members.

The President has also kept in contact over the year with the Chair of the Membership committee, Andrew Collins. The committee has been very active and successful under his chairmanship. One important piece of news received via the Membership Committee came from Professor Huichang Chen, ISSBD's coordinator in China. They were able to increase membership by 68% between 2003 and 2004, when they admitted 168 members.

The Society has also established an awards system for distinguished contributions to research, and discussed the idea of establishing "fellows" within the Society. In the process chaired by Kenneth Rubin, the work of two distinguished and longstanding members of the ISSBD was officially recognized by the Society on the occasion of the Ghent Meetings. Willard W. Hartup, University of Minnesota, and Harold Stevenson, University of Michigan, were presented with the *Distinguished Contributions to the International Advancement of Research and Theory in Behavioural Development* award at the General Assembly on 14 July, 2004.

Various societies have contacted the President for closer cooperation with the ISSBD. For example the Society for the Study of Human Development requested closer collaboration with the ISSBD, including some mutual benefits concerning reduced membership fees. Following an extensive dialogue with the Past-president, Kenneth Rubin, the suggestion is to offer some limited level of cooperation. The other society to approach the ISSBD was the European Society for Developmental Psychology, from whom a proposal for a joint ISSBD-ESDP seminar was received.

The President thanked his home university, the Friedrich Schiller University of Jena, and the German Science Foundation for their support, both financial and resource provision, which has made the completion of his work successful and his participation in many ISSBD-related meetings and conferences possible. Similarly, he expressed his gratitude to Verona Christmas-Best and Katrin Mueller, both in the Department of Developmental Psychology at Jena.

The President also expressed his gratitude, on behalf of all ISSBD members, to the Steering Committee, the Executive Committee, regional Coordinators, and to all those who were active in any role on behalf of ISSBD. Particular thanks go to those members of the Executive Committee whose official duties are now over (Roger Dixon and Candida Peterson). Warm welcomes were extended to the new President-elect, Anne Petersen, and EC members Andrew Collins, Arnold Sameroff and Marcel van Aken.

The President's report was unanimously approved by the EC and GBM.

4. Secretary General's Report

4.1 Operations

The Secretary General, Jari-Erik Nurmi, reported the following activities: the Secretary's office has been involved in many activities in running the Society, such as preparing agendas and minutes of the Executive Committee meetings and General Business meetings, administering the contents of the Society's web-page, answering a variety of questions from the Society members, disseminating information about the Society to other societies and international volumes, and furnishing the President and other officers with information concerning the Society's Bye-laws, previous decisions and other organizational matters. The Secretary has also participated in the work of the Steering Committee.

Besides these activities, the Secretary has: 1) conducted the 2004 elections of members of the Executive committee together with Past-president Kenneth Rubin; 2) started preparation of the rules for change in the offices of the ISSBD (in progress); 3) provided the organizers of biennial meetings, summer schools and workshops with information about the Society; 4) been involved in the initiation and planning of one workshop proposal (Michigan, Ann Arbor); and 5) provided the Society with a variety of documents and materials.

All this work would not have been possible without support from the University of Jyväskylä and its Department of Psychology, and hard work done by Anne-Riitta Vanhala, the Secretary and international coordinator of the department.

The report of the Secretary General was approved unanimously.

4.2 Elections

The 2004 election of members of the Executive Committee for 2004 - 2010 was conducted by the Secretary together with Past-president Kenneth Rubin. The Call for Nominations was announced in the 2002 Fall issue of the ISSBD Newsletter. The results of nominations were discussed in a meeting of the Nomination Committee chaired by Kenneth Rubin, and two names for each vacancy were selected for ballot. They were W. Andrew Collins, Serdar Degirmencioglu, Arnold Sameroff, Ann Sanson, Ursula Staudinger and Marcel van Aken.

The ballot was announced in the 2003 Fall issue of the ISSBD Newsletter. The number of ballots received was 104. One-hundred of them were valid. The votes were counted using O'Hare's system. The candidates elected to serve on the Executive Committee 2004-2010 were W. Andrew Collins, Arnold J. Sameroff and Marcel van Aken.

A suggestion was made that elections be carried out electronically in the future. It was thought that this would increase the rate of participation among members. The Secretary will look into the possibilities for electronic elections.

5. Report from the Treasurer/ Membership Secretary

Because the Acting Treasurer/Membership Secretary was unable to participate in the EC and GBM, President Rainer K. Silbereisen reported on Society membership and finances.

5.1 Membership Secretary

The role of membership secretary was transferred, on an acting basis, from the University of Ottawa to Pennsylvania State University in June 2003. Regular duties include dealing with membership renewals, correspondence with members and prospective members regarding membership issues, maintaining the membership data base, providing assistance to the Membership Committee, supporting the Regional offices in their membership efforts, and providing the publisher with up-to-date information on membership.

Membership figures up to 2001 have been presented in previous reports. Membership figures for 2002 and 2003 (Table 1) are incomplete and therefore unreliable, as the current Acting Membership Secretary was not in charge during all of 2002 and the first half of 2003. What is reported for 2003 represents information that was transferred from Ottawa. The reason for presenting mid-year data for 2003 and 2004 is that the 2003 data represent the final report made by the outgoing membership secretary while the mid-year 2004 report represents with reasonable certainty the current, up-to-date status of the Society's membership. Particularly noteworthy, however, is the fact that the total membership as of June 2004 is the highest since 1996.

The Society is fortunate to have a number of excellent regional coordinators. Belarus (Yuri N. Karandashev) reported

17 regional members; China (Huichang Chen) has been particularly successful in attracting new members, with the most recent count at 177; India (Suman Verma) continues to do very well with 92 members; Russia under the leadership of Tatiana Yermolova is making a comeback with 29 regional members; the position of regional coordinator for the Baltic countries was discontinued; Rita Zukauskienė from Lithuania has continued to serve as de facto regional coordinator for Lithuania, reporting 19 members; Indonesia (Surastuti Nurdadi) has been inactive, although 6 members from Indonesia remain; West and Central Africa (Jean Tano) has been inactive.

The membership of the Society appears to have stabilized around the historical level of the past few years, following the downturn last year. With the Ghent meeting serving as a stimulant for attracting new members, as well as a more active Membership Committee under the leadership of Andrew Collins, further gains in membership are likely. Thanks to the success of some of the Regional Coordinators, further increases in regional membership appear all but certain. Moreover, a more assertive approach to winning back previous members who discontinued their membership may be a cost-effective approach to recruitment.

Penn State's College of Health and Human Development contributed space, clerical support in the person of Ms. Becky Reese, and a variety of other support services to ensure relatively uninterrupted service to the members of the Society in spite of the unexpected resignation of membership secretary Barry Schneider. Special thanks are expressed to Dean Raymond T. Coward for his generous support of the activities of the Acting Membership Secretary.

The EC and GBM unanimously approved the report of the Membership Secretary.

5.2 Treasurer

The duties of the Treasurer are focused around several areas: 1) collecting and processing member dues, communicating with members about payments; 2) managing the financial assets of the Society; 3) paying the Society's bills; 4) maintaining the Society's financial data base and providing data for the preparation of tax documents; and 5) managing grants and assisting conference and workshop organizers.

The transition of financial management from Barry Schneider to Fred Vondracek has been exceedingly complex, time-consuming, and drawn-out. There are a number of reasons for this, including the incomplete transfer of authority from one Treasurer to another previously, and the difficulties of crossing national boundaries.

No changes were made in the investment portfolios, which were carefully assembled under the guidance of Brett Laursen, the former Treasurer and Membership Secretary (1996 - 2002). All other accounts were closed and the assets were transferred into one of two new accounts currently used by the Acting Treasurer.

2003 ISSBD income comes from Royalties paid by Taylor & Francis (\$38 842.00), the Psychology Press (T&F) editorial stipend (27 000.00), the Jacobs Foundation Travel Grant (32 405.00), investment income (12 359.29), and membership dues

Table 1: 2003 and 2004 Paid up Membership by Category* (2001 membership added for comparison)

Category	(2001)	2003	2004
Emeritus	(41)	24	32
Full	(627)	448	619
Reduced	(318)	247	395
Spousal	(14)	10	10
Student	(29)	29	71
TOTALS	(1029)	758	1127

* Because the office was transferred from Barry Schneider to Fred Vondracek in June of 2003, membership figures reflect the period June 2003 to June 2004.

Table 2: 200-2004 Financial Report

	2002	2003
Opening balance	400 194	439 391
Revenues	122 227	116 616
(Other changes in assets/investments)	-28 646	64 124
Sub-Total	493 775	620 131
Disbursements	54 384	75 229
TOTALS	\$439 391	\$544 902



(38 356.00). 2003 ISSBD disbursements include stipends for the Society officers and expenses for workshops.

Overall, the Society's finances are in excellent shape. Membership dues should remain at the current level at least for the next couple of years, partly because the finances of the Society are solid, and partly to attract a larger membership in the years to come. Regional dues should be reviewed, with a view toward the possibility of reducing them to \$5.00 for much of Africa, and increasing them for China. The collection of membership dues via the web should be examined.

Special thanks are due to Dean Raymond T. Coward of Penn State University's College of Health and Human Development and Becky Reese.

The report of the Treasurer and the accounts were approved unanimously by the EC and GBM.

6. Membership Committee

The membership committee consists of Huichang Chen (China), Mary Louise Claux (Peru), Debora Dalbosco Dell'Aglio (Brazil), Jeanette Lawrence (Australia), Seong-Yeon Park (Korea), Marcel Van Aken (The Netherlands), and Karina Weichold (Germany).

In this biennium, the committee has focused on activities tailored to the distinctive needs of developmental scientists in different parts of the international community. To give one example, the committee member from Australia (Lawrence) took a letter of invitation from the committee to a regional conference of developmentalists held in New Zealand in the summer of 2003. To give another, the representative from China (Huichang Chen), who also is an ad hoc member of the Executive Committee, reported 73 new members in 2004, making a total of 173 from China. Other committee members have used e-mail lists to transmit membership invitations to scholars in their countries.

The current membership of 1,118 is an indication that the committee's efforts, along with the growing reputation of ISSBD throughout the worldwide community of developmental scholars, and the attractiveness of the Ghent meetings, are having a positive effect on the vitality and growth of the Society. In the coming biennium, it may be fruitful to continue a regional strategy that has proven successful in the immediate past. The chair appreciates the dedication of the committee members.

President Rainer K. Silbereisen asked Collins to continue to chair the Membership Committee. Collins accepted the invitation. The EC decided also to invest extra effort to broaden the Membership committee.

The EC unanimously approved the report of the Membership committee.

7. Ad hoc Advisors

The EC decided to ask previous Ad hoc advisors, Bame Nsamenang, Huichang Chen, Tatjana Yermolova, and Silvia Koller to continue in their positions 2004 – 2006. Moreover, President Rainer K. Silbereisen suggested that Ursula M. Staudinger be asked to serve as Ad hoc advisor for adult development and aging. The EC approved the move.

8. Awards of the Society

In its meeting in Tampa in 2003, the EC asked the Past-president, Kenneth Rubin, to prepare a plan for the awards to be made by the society. Following discussions in the Steering Committee, three awards were initiated: 1) The ISSBD Distinguished Scientific Contribution Award, 2) the ISSBD Award for Distinguished Contributions to Applications and Theory in Behavioral Development, and 3) the ISSBD Young Scientist Award.

The awards were announced in the Fall 2003 Newsletter, and, on the basis of nominations made, it was decided that two people will be given the ISSBD Distinguished Scientific

Contribution Award. These people were William Hartup and Harold Stevenson.

The ISSBD Distinguished Scientific Contribution Awards were given to Hartup and Stevenson (the latter was unable to participate in the meeting) by the Past-president, Kenneth Rubin, and the President, Rainer K. Silbereisen, at the GBM Awards ceremony in Ghent.

The President, Rainer K. Silbereisen, asked the EC members Abraham Sagi-Schwartz (chair), Arnold Sameroff and Suman Verma to serve on the Awards 2006 Committee. All accepted. It was also decided that the committee chair will be responsible for calling for nominations. The EC decided further that the Young Scientist Award will include also travel money, free registration and a stipend (\$500).

9. Workshops

9.1 Regional Workshops

Bame Nsamenang reported recent developments concerning the 6th International Africa Regional workshop on 'HIV/ AIDS and African youth' that was scheduled to take place in July 2004 in Cameroon. Ninety participants had already been registered: 60 from Cameroon, 25 from other parts of Africa and 5 from other parts of the world. The President was to take part in the workshop.

The EC acknowledged also the reports of two recent ISSBD regional workshops: 1) a workshop on 'Qualitative research methods' held in 2003 in India, and 2) a workshop on 'Parental beliefs, parenting, and child development from cross-cultural perspectives', held in 2003 in Korea.

9.2 Other Workshops

President Rainer K. Silbereisen reported some recent advances concerning the ISSBD Moscow Workshop on 'Self-regulation and social change' planned to be held in June 2005. The workshop is targeted at graduate students and younger faculty members from Russia and other new countries in the region. Tatjana Yermolova and Natalia Avdeeva will co-chair the meeting and Kenneth Rubin and Rainer K. Silbereisen will serve as the ISSBD liaisons. The President Rainer K. Silbereisen suggested that Avshalom Caspi be nominated as the third ISSBD liaison. The EC accepted the proposal. The EC decided that the ISSBD will fund the workshop up to the sum of \$ 40 000.

A workshop on 'Developmental transitions as turning points: An international workshop on theoretical and methodological perspectives' was proposed by John Schulenberg, Lisa Crockett and Jari-Erik Nurmi. The workshop is planned to take place in May or early June, 2006, at the University of Michigan, Ann Arbor. The EC accepted the proposal but suggested that the organizers reconsider a few points, such as the timing of the workshop related to the ISSBD Melbourne meeting, the visibility of the ISSBD at the Workshop, and the possibility of publishing a book on the basis of the presentation in the ISSBD book series. It was suggested in the discussion that possible ISSBD funding for the workshop might go up to \$ 25 000. The organizers of the workshop were asked to develop their proposal and report on developments to the President.

Abraham Sagi-Schwartz reported on the recent development of the ISSBD workshop on 'Chronic exposure to catastrophic war experiences and political violence: Links to the well-being of children and their families', to be held in the Middle East in March/ May 2005. The local organizing committee consist of Avi Sagi-Schwartz, Moshe Zeidner, Rachel Seginer, Muhammad Haj-Yahia, Charlie Greenbaum, and Khuloud Dajani, and the International Advisory Board of Rainer K. Silbereisen, Avshalom Caspi, Marinus van Ijzendoor and Jari-Erik Nurmi. In the discussion, the EC emphasized the importance of deciding the venue and preparing for a detailed budget soon, as the workshop will be held within a year. The EC

decided unanimously to spend up to \$25 000 on the workshop. It was suggested that the organizers report to the President within 3 weeks with a revised proposal.

Willem Koops and Frank Kessel proposed that an ISSBD workshop be held in Cape Town in 2005. One rationale for the workshop is to support the evolving scientific community of developmental psychologists in South Africa. After a long and detailed discussion and the expression of a variety of opinions, the EC decided unanimously not to support an African workshop in 2005. One reason was that the proposal was felt to be somewhat premature and another that ISSBD supported an African workshop in Cameroon in 2004. A further reason was that the connections between the workshop and the major mission and activities of the ISSBD remained to some extent unclear.

10. Publications

10.1 International Journal of Behavioral Development

The Editor, William Bukowski, reported the following developments: the IJBD continues to publish papers in all areas of developmental psychology. If there are any domains that distinguish the IJBD from other journals, they are the interest in a life-span perspective and in diversity in development across culture, region, and other contexts. One of the goals is to encourage submissions in these areas while maintaining the IJBD as a broad-based "platform for research on human development."

During the past year the IJBD has received 123 papers. Roughly 50 papers were expected to be published in the present volume. These totals compare favorably with the number in previous years.

The articles submitted to the Journal came from more than 20 countries. The largest numbers of submissions are from North America and Western Europe, accounting for just under 80% of all submissions. One goal of the Journal is to encourage submissions from around the world. Each year the IJBD publishes 6 issues. Roughly 55 articles are needed each year to fill the six issues.

The time used to process articles from the moment of their initial submission to the first action letter is approximately 70 days, a slightly shorter period than in the past. The current interval between acceptance and publication is about 6 months.

Three special sections are in progress: one on the study of the dyad as a developmental context, one on the effects of harsh parenting, and one based on the pre-conference to this year's ISSBD meeting.

The editorial office of the IJBD is located on the premises provided by the Centre de Recherche en Développement Humaine at Concordia University in Montréal. The Editor is William M. Bukowski and the Managing Editor is Jonathan B. Santo. Four associate editors started their terms in July 2001. They are Margarita Azmitia (University of California, Santa Cruz), David Crystal (Georgetown University), Jutta Heckhausen (University of California, Irvine), and Karen Li (Book Reviews, Concordia University). More recently Todd D. Little (Yale University/University of Kansas) was added to deal with papers that discuss recent advances in the study of change. Due to parental duties, Drs. Azmitia and Li will retire from their positions soon. The persons on the Editorial Board come from around the world and represent many domains of developmental science. Currently efforts are being made to expand the size and diversity of the board.

The Montreal office is in frequent and very amicable contact with the publisher, Psychology Press, in Brighton, UK. The efforts made by Kirsten Buchanan are particularly appreciated. The publisher has been very responsive to requests for information and advice on several matters.

The Montreal office continues to work with the publisher to enhance the journal's profile. Advertisements for the journal have appeared in other journals, and the journal has been represented at conferences. The IJBD is available via the electronic journal database "Psychology Online" offered by Psychology Press (see <http://www.catchword.co.uk>). This system allows readers to download full text version of all the articles that appear in the IJBD. (<http://www.tandf.co.uk/journals/online/0165-0254.html>).

The journal continues to be administered by e-mails rather than paper correspondence. The Editor is grateful to Jonathan B. Santo for his perseverance and good cheer in developing ways of keeping our humble bureaucracy moving along.

The Editorial Office has been supported by various sources of funding: one indirect, in the form of the provision of space, a phone service, and internet access from Concordia University, and from the ISSBD.

The Editor has four goals for the coming year: 1) improvement of the efficiency of the journal; 2) an overhaul of the editorial board; 3) effort to increase the number of papers on the topic of recent advances in the study of change; and 4) a monthly update of "in press" articles that would include copies of the abstract for each paper.

The report of the Editor was unanimously approved by the EC.

10.2 Newsletter

In their report, the Editors, Joan G. Miller and Xinyin Chen, reported the following plans and activities: the Newsletter continues to publish special sections devoted to central topics in developmental psychology in cultural contexts over the life course, while serving as a forum for the dissemination of ISSBD organizational news and announcements of general interest to its members. Recent special sections of the Newsletter have been devoted to the topics of "Immigration and adjustment from a developmental perspective" and "Theory of mind: Future directions". The most recent issue also included a Special Essay by Marc H. Bornstein on "Child and family research in a cross-cultural perspective". In terms of future plans, the Special Section in the Fall, 2004 issue was to focus on the topic of "Friendships among children and adolescents: Insights and challenges".

The Newsletter Editors welcome the input of ISSBD members regarding possible ideas for special sections or for new directions for the Newsletter. Letters to the Editor responding to past Newsletter articles are also strongly encouraged. There is also a plan to continue to publish free-standing special essays, the criteria for inclusion of articles in this section being that they have some direct relationship to the activities of the ISSBD.

An excellent working relationship is in place with Psychology Press. The publisher continues to do a high quality job in the production of the Newsletter and is highly responsive to our formatting requests and in working with us in meeting production deadlines.

The report of the Newsletter editors was approved unanimously.

10.3 Publisher's Report

Rohays Perry from Psychology Press reported several recent developments in the publication of the IJBD. For example, the Journal has been promoted in many ways, such as at various congresses and using e-marketing. Institutional subscriptions to the Journal have remained at about the same levels as they have been, although a slight decrease occurred during 2002-2003. The figures also show that the online usage of the journal continues to increase. The impact factor for the IJBD was .50 for 2001, 1.00 for 2002, and .85 for 2003.



11. Biennial Meetings

11.1 Ghent 2004

Leni Vershofstad-Denéve summarized the major congress activities and highlights. She also reported some recent developments in the organization of the Ghent congress. Overall, organizing the Congress was progressing smoothly and she was expecting the biggest ISSBD congress ever. The Congress was expected to have as many as 1300 participants. The EC thanked the Chair of the Ghent Meetings, Leni Vershofstad-Denéve, for her splendid work for the Meetings and the Society.

11.2 Melbourne 2006

Ann Sanson reported on the recent developments of the ISSBD Melbourne Meetings. The final proposal was submitted to the steering committee in Spring 2004, after which negotiations on several matters took place between the organizers and the Society's President Rainer K. Silbereisen. All major issues were resolved in these discussions.

The EC accepted the congress budget as a framework. It was also decided that the ISSBD will make a \$ 35 000 loan to the organizers. This is also the maximum the Society is prepared to pay if the Congress incurs a loss. In the event of a loss, the Society will make up half of that loss, not exceeding this maximum. Any profit will be distributed so that, of the first \$ 20 000, 20% goes to the ISSBD and 80% to the organizers. Of any profit above that, 50% goes to ISSBD and 50% to the organizers. Half of what goes to ISSBD beyond the first A\$20 000 would be spent on Australia in ISSBD-related activities, such as supporting the participation of young scientists in congresses, etc.

The EC made two suggestions related to the Melbourne 2006 Meetings. First, there was a wish that the organizers do all they can to keep down the expenses and registration fee. Second, the organizers were asked to negotiate a discount for any other congresses linked to that of the ISSBD Meetings.

11.3 Wuerzburg 2008

The EC discussed the preliminary proposal concerning the ISSBD 2008 Biennial Meetings sent in by Wolfgang Schneider. One reason for holding the 2008 Congress in Germany is that the International Congress of Psychology will be held in Berlin

2008 and the ISSBD Meetings can be linked to it as a satellite meeting. The EC asked President-elect, Anne Petersen, to act as a co-chair of the Congress. The dates of the Congress were also discussed but the final decision needs to be made later on in the negotiations between the Congress chairs and Steering Committee.

12. Offers for the Publishing Contract and Management Services

12.1 Offer from Psychology Press

Rohays Perry presented the last version of the offer from Psychology Press for a publishing contract and management services.

12.2 Offer from Sage

Ziyad Marar and Leo Walford presented the last version of the offer from Sage for a publishing contract and management services.

12.3 Discussion of the Proposals

President Rainer K. Silbereisen summarized the pros and cons of the two offers for the publishing contract and management services. The offers were then discussed from several viewpoints, such as finances, possible problems in moving to other publishers, the publication environment in terms of other journals published by a particular publisher, etc. In conclusion, the EC made a unanimous decision to opt, in principle, for Sage. The President was asked to start negotiations of some open questions identified in the discussion of the EC and come back with a draft contract.

13. Relationships with Other Societies

The President, Rainer K. Silbereisen, described the discussion he has recently had with several other societies, such as the Society for Human Development and the European Society for Developmental Psychology. After discussion, the EC encouraged the President to continue these discussions to find out how best to co-operate with the other societies.

14. Other Relevant Business

No other topics were raised.

Editorial

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SEARCH FOR NEW EDITORS OF ISSBD NEWSLETTER

ISSBD is searching for new Editor(s) of the ISSBD Newsletter to serve a 6-year term starting January 1, 2006. Individuals who are interested in the position should contact Rainer Silbereisen (Rainer.Silbereisen@uni-jena.de) by June 30,

2005, indicating their background, potential institutional support and any other information that they feel relevant. Copies of past issues of the ISSBD Newsletter are available for viewing or downloading at ISSBD.org.

MAJOR CONFERENCES OF INTEREST

2005 May 26-29

The 17th Annual Convention of the American Psychological Society (APS)

Location: Los Angeles, CA, USA

Website: convention@psychologicalscience.org

2005 July 3-6

28th Annual Scientific Meeting of the International Society of Political Psychology (ISPP)

Location: Toronto, Canada

Website: <http://ispp.org/meet.html>

2005 August 18-21

The 113th Annual Convention of the American Psychological Association (APA)

Location: Washington, D.C., USA

Website: www.apa.org/convention

2005 August 30-September 2

*Measuring Behavior 2005
5th International Conference on Methods and Techniques in Behavioral Research*

Location: Wageningen, The Netherlands

Website: www.noldus.com/mb2005

2006 May 2-6

2006 Conference of the European Association for Research on Adolescence (EARA)

Location: Antalya, Turkey

Venue: Hotel Sheraton Voyager, Antalya

Website: <http://eara2006.ebuline.com>

Email: eara2006@ebuline.com

2006 July 11-15

18th Congress of the International Association of Cross-Cultural Psychology (IACCP)

Location: Isle of Spetses, Greece

Website: www.iaccp2006.psych.uoa.gr

2006 July 16-21

26th International Congress of Applied Psychology of the International Association of Applied Psychology (ICAP)

Location: Athens, Greece

Website: www.iaapsy.org

2008 July 20-25

XXIX International Congress of Psychology (ICP)

Location: Berlin, Germany

Website: www.icp2008.de

FORTHCOMING PUBLICATION

The book 'Parenting Beliefs, Behaviors, and Parent-Child Relations: A Cross-Cultural Perspective' edited by Kenneth Rubin and Ock Boon Chung ISBN 1-84169-438-X is in production, due for publication by the U.S. office of

Psychology Press, Summer 2005. For details and information regarding a special offer to ISSBD members please go to the ISSBD membership website, see: www.issbd.org.

