

14 Cross-cultural views on human development in the third millennium

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INTRODUCTION

In the 1986 special issue of *IJBD* (*International Journal of Behavioral Development*) on cross-cultural human development, the co-editors, Gustav Jahoda and Pierre Dasen, mentioned "taking culture seriously" as the main characteristic of a cross-cultural perspective. They complained that "mainstream" developmentalists showed little sign of interest in culture. In the meantime, the situation has changed considerably. At ISSBD biennial meetings, a large proportion of presentations are now culturally oriented, in various ways, and the same is true of articles in *IJBD*. Whether one is satisfied with the situation or not is of course a matter of personal interests. In the four volumes of the *Handbook of child development* (Damon, 1998), out of 71 chapters, there are 3 that we would consider cultural, none cross-cultural. The other chapters make an occasional reference to culture, but very rarely are cross-cultural studies mentioned. To take but one example, the chapter on aggression and antisocial behaviour (Coie & Dodge, 1998) makes no reference to the important work of Schlegel and Barry (1991), which includes a cross-cultural study of the antecedents of antisocial behaviour in 168 societies world-wide. There is one page on issues of gender, ethnicity, and cultural specificity, in which the authors state: "However, the importance of examining developmental models separately in various gender, ethnic, and cultural groups has become recognised and is likely to characterise research over the next decade" (p. 785). In other words, there has been, from our perspective, considerable progress in the last decade or two, but there is still a lot to be done.

Indeed, the study of human development is still heavily dominated by a Western, or eurocentric (and hence ethnocentric) perspective. Ethnocentrism is all the more difficult to track in that it is mainly involuntary and unconscious (Segall, Dasen, Berry, & Poortinga, 1999). For example, we are writing here about prospects in the "third millennium". Which third millennium? Only the Western, Christian one—which, although or because it is now practised in most of the world (in addition to local calendars that are still in use), in fact represents Western hegemony. In the year AD 2000,

Hindus had already been in the third millennium for 57 years. But there are different calendars within the Indian subcontinent alone: it was the year 1921 in the Shaak year, 1405 in the Bengali calendar, 1120 for the Newars of Nepal, and 2542 for some Buddhists. At the same time, Muslims started the year 1420, while the Hebraic calendar indicated the year 5761, the Alexandrian one (still in use for monks in Ethiopia), 1992, and 1716 for Copts in Egypt. Everyone knows that the calendar is a social convention, yet somehow it is taken as an objective reality.

While the belief that we have entered a third millennium is thus rather culture-specific, it is irrelevant, of course, to the project of taking stock and reflecting on future developments of our discipline. We will do so with a specifically cross-cultural point of view. The other side of the coin, beyond the scope of this chapter, would be to show that there is also a need for taking the developmental perspective seriously in cross-cultural psychology.

A CHANGE IN PARADIGMS

In all of the social sciences, the last decades have brought about a shift in paradigms, from the positivism inspired by nineteenth-century natural sciences to the constructivism of post-modernist, post-industrial societies (Guba, 1990). For the moment, this shift is still seen as conflictual, or at least problematic. In the domain of (cross-)cultural studies, the debate has taken the form of an opposition between quantitative, antecedent-consequence-oriented comparative studies, close to the traditional mainstream of psychology, and the qualitative, hermeneutic, "thick descriptions" of so-called "cultural psychology", inspired to a large extent by the relativism of anthropology. The debate is very well illustrated by the various chapters in Volume 1 of the second edition of the *Handbook of cross-cultural psychology* (Berry, Poortinga, & Pandey, 1997).

There is no doubt that the debate has substance, if only in the shift of the definitions of the key concept of "culture". Rather than being a relatively static and stable property of societies, seen as different entities sharing a set of norms and symbols, the more recent definitions of culture insist on dynamic processes. Culture is no longer shared by all, but is being co-constructed by each individual (Boesch, 1991; Bruner, 1996; Cole, 1996; Shweder, 1990). Intentionality has replaced causality as an explanatory principle. Similarly, socialisation is no longer conceived of as an external influence of socialisation agents who control the behaviour of the upcoming generation, but as a process of negotiation between the developing individual and other actors on the scene (Camilleri & Malewska-Peyre, 1997).

Although we welcome such a substantive change towards more dynamic process-oriented theories, there are a few teething problems that need to be highlighted. The proponents of the incoming paradigms, no doubt because they still identify as a minority threatened by the powerful establishment of

positivistic science, tend to be defensive, if not aggressive. They try to establish their credo not so much by demonstrating how useful it is, but by bashing the retarded oldies who still believe in sampling, inferential statistics, the assessment of reliability, and other such outdated symptoms of a model based on physics. The problem with this type of language is that it is immediately rejected by the other group as unacceptable; instead of a scientific debate, one gets the tightening of opposed social groups that need to reinforce the positive identity of their in-group by putting down the out-group. (Cross-)cultural psychologists should be able to do better in terms of conflict avoidance and mediation!

To our minds, there does not have to be a conflict, but two interesting and complementary points of view. A problem occurs, however, when the paradigmatic shift is too extreme: The strong emphasis on individual intentionality may in fact be an ethnocentric view based on Western individualism (Kagitçibasi, 1997). And we do not believe that all societies will evolve towards a world-wide, post-modern individualism on the model of Western capitalistic hegemony; at least, we hope that is not the fate of the so-called "global village".

Linked to an extreme theoretical shift are also problems in methodology. Considering that there is no reality that is to be described, that there are no facts to be collected, no data to be analysed, that social scientists can do no more than writing literary texts, leads to a sort of suicide of the social sciences. Because of the difficulties of going about an empirical study, the tendency is to stay at home and deconstruct concepts; armchair social science was not only characteristic of the past. We think that this is extremely harmful and discouraging, particularly for young scientists, who find it difficult to design a feasible study. The bias against "facts" sometimes even leads to inventing instead of collecting data. For example, in a paper on parental reasoning, Valsiner and Litvinovic (1996) establish a typology of parents' discourse with children, and give fictional examples of each. Other researchers who still go around and do interviews, in the belief that this is the way to reflect what people have to say, are likely to be taxed as positivists.

The concluding chapter in Volume 1 of the *Handbook of cross-cultural psychology* (Poortinga, 1997) is entitled "Towards convergence?". Indeed, we believe that this seemingly unreconcilable opposition of paradigms is a swing of the pendulum, a necessarily extreme revolution, which will subside into a more moderate, median position. Note that we do not predict a return to positivism, but to what Guba (1990) has termed post-positivism. It is also the approach advocated by Berry, Poortinga, Segall, and Dasen (1992) and Segall et al. (1999) for the broad field of cross-cultural psychology. We see two reasons for such a development: First, quantitative and qualitative methodologies, or reliability and validity, are not necessarily opposed but complementary. For each research project, depending on its goal, one or the other may be more adequate, if not a combination of

both. The second reason is that, as Segall (1993) has pointed out, the so-called new paradigms are not necessarily completely recent inventions. Cultural psychology has been advocated for a long time within anthropology and cross-cultural psychology as the "emic" approach (Jahoda, 1992; Jahoda & Krewer, 1997).

As far back as 1974, Berry and Dasen defined three goals of comparative cognitive psychology (Berry & Dasen, 1974, p. 14):

- 1 To *transport* our present hypotheses and laws to other cultural settings [in order] to test their applicability or generalisability;
- 2 To *explore* new cultural systems to discover cognitive *variations* and differences we have not experienced within our own cultural context;
- 3 To *compare* our prior understanding with our newer knowledge within diverse cultures to generate more universal descriptions, hypotheses and laws of human cognitive functioning.

The second goal was even then recognised to be more important than the first (Berry & Dasen, 1974, p. 14):

The basic aims of the comparative method cannot be limited to a mere testing of extant hypotheses; we must be concerned with expanding and integrating our knowledge of human cognitive variation. Thus one of the more recent attempts to define the method for psychologists (Whiting, 1968), which limits the method to hypothesis testing, is too narrow for the needs of cognitive research. Indeed, as Strodtbeck (1964) has argued, the *discovery* aspect (aim no. 2) of the method, has more to contribute to our overall aims than the initial *testing aspect* (aim no. 1).

Hence, the goals of cross-cultural psychology are both understanding local phenomena and, at the same time, attempting to develop panhuman generalisations. The development of "cultural psychology" with its emphasis on culture as a phenomenon "co-constructed" by individuals through interactions rather than as something given from outside has added new dimensions to the ongoing debate between cultural universalists and cultural relativists. Although the search of culture-specific variations in psychological processes is a common goal of both cultural and cross-cultural psychologists, and although most cultural psychologists do believe in the notion of psychic unity (Greenfield, 1997, p. 309; Shweder & Sullivan, 1993, p. 517), the former question the theoretical relevance of this universal. They believe that panhuman characteristics (even if identified) are likely to be so abstract that they would have very limited explanatory power to account for specific psychological phenomena. In spite of this stand, evidence for universal explanations in cultural psychology is not altogether absent. Constructs like "scaffolding" (Greenfield, 1984) or "guided participation" (Rogoff, 1990) are good examples of processes useful for a general explanation.

Increasingly, attempts at explanations in the cross-cultural approach are formulated in ways such that the perspective of different cultural groups is not distorted, whereas in the cultural approach, explanations are formulated in ways that characterise psychological functioning of individuals within a particular cultural group at a particular point of time in a particular social-historical context. A rapprochement between these positions is necessary for a proper understanding of the cultural aspects of human development.

METHODOLOGY

As mentioned, the shift in paradigms also has important methodological implications. For a long time, psychological research, including child development research, has been characterised by laboratory studies, use of sophisticated experimental designs, statistical analyses, and an epistemology rooted in the natural sciences. The emphasis was on the study of the effect of immediate context on behaviour, with a general disregard for variables that were distal in nature. Methodological rigour was considered as the most important criterion to make the study of behaviour part of a truly scientific enterprise.

In spite of some departures from mainstream psychology in the last two decades, a central feature of studies of human development has remained generally unchanged: The quantitative approach still dictates decisions regarding the forms of data collection and their analyses. Consequently, data obtained by any method regarding any psychological quality of individuals do involve categorisation of responses in ways that allow some sort of statistical comparison between groups. The reductionism implicit in the manipulation of variables and the dominance of quantification have been a major aspect of the critique of psychological studies for a long time (Harre & Secord, 1972). It is argued that the methods and the measurement techniques used by academic psychology reflect the dominance of a mechanistic model in the analysis and understanding of human behaviour (Eckensberger, 1979; Eckensberger & Burgard, 1983).

The paradigm shift mentioned earlier has already led to a considerable change during the last decades. A number of psychologists have expressed serious doubts on the applicability of laboratory research to real-life settings. As a result, a number of post-positivistic nonexperimental methodologies have surfaced, and these are being used in an increasingly wider range of empirical studies of human development. A number of questions are being asked in new terms and answered in new ways. The development of alternative strategies in order to ensure greater representation of qualitative techniques of analysis in cross-cultural studies of human development is an important agenda for psychologists to address in the forthcoming years.

There are efforts to develop an ecologically valid psychology based on studies grounded in the "real world" of people. This move towards naturalness has made psychology of human development more open to research on a range of topics that were previously neglected (e.g., studies on the development of self, and on "everyday cognition"). With the inclusion of these new topics in the research agenda, the importance of different types of data collection strategies (e.g., diary studies, self-reports, conversation and discourse analyses) is recognised. Although these techniques are considered to be full of problems of objectivity, the pursuit of objectivity itself has been replaced by taking the insider's perspective, and much more attention has been paid to interpretive, ecological, and theoretical validity (Greenfield, 1997, pp. 316-317). Qualitative procedures to ensure reliability, replicability, and theoretical generalisability are being devised (Miles & Huberman, 1994; Pourtois & Desmet, 1988), and much more attention is needed to these issues. To search for convergence is also important in the methodological domain.

The introduction of more qualitative methods does not preclude cross-cultural comparisons. Indeed, we may hope that in the forthcoming years, researchers will include more diverse groups and draw more appropriate samples in their studies. Sampling should occur on the basis of serious theoretical considerations, not in the casual ways of so-called "safari-style" cross-cultural research (Segall et al., 1999).

A caution is to be observed at this point. As Miller (1997) argues, employing interpretive techniques that make use of indigenous language is as biased a practice as complete reliance on experimental or comparative approaches. All methodological strategies have their own strengths and weaknesses; the decision about their efficacy can be made only in the context of the questions that one is trying to answer.

NEEDED FURTHER DEVELOPMENTS 1: TAKING NEW THEORIES TO THE CROSS-CULTURAL TEST MORE QUICKLY

Psychology, be it developmental or not, still produces new theories on the basis of research with very limited samples, often of a single sociocultural background (such as middle-class Anglo Psych-1 students) in the setting of a compulsory and largely artificial laboratory experiment. Yet, the intention is to develop theories that say something about human behaviour more generally. Even in the newer constructivist paradigms, which take context into account, the purpose is not to make a statement only about Psych-1 students.

Yet, there is very little cross-cultural testing of theories going on, in fact less than there was in the 1970s and 1980s. Cognitive science, for example, has become an important domain of research, yet culture is almost absent

either in the machine and artificial intelligence, or in the human counter-part. Internal processes are treated as if they were universal by definition, or rather, the question of universality is not even asked (Wassmann, 1993). However, one paradox is that it is not just the hard-nosed, experimental theories that are deemed universal without an empirical test: The theories that potentially take cultural variables into account do not fare much better. A few examples will illustrate our point.

Another paradox is that theory developers should, in fact, not have to fear the outcome of the cross-cultural test. Theories are hardly ever completely rejected; the most common pattern is to find that some parts hold up whereas others have to be modified. The end result is a more complex theory able to take more situations into account. Instead of being afraid that their theories will not hold up, the senior scientists that devise them should systematically encourage their students to take them to the field. There is scope for many PhDs.

Neo-Piagetian theories

Piaget's theory was perhaps particularly ill-suited to taking culture seriously, yet it has led, over a couple of decades, to an enormous amount of cross-cultural research (Dasen & Heron, 1981; Mishra, 1997). Neo-Piagetian theories (see Dasen & de Ribaupierre, 1987, for an overview) are much more complex in terms of taking social and cultural variables into account. Yet, except for a very small number of studies limited to one or the other detail of such theories, none of them has led to a large-scale, complete replication in at least two cultural contexts other than that in which they were designed.

Theories of mind

Another outgrowth of genetic epistemology is the study of "theories of mind", i.e., the tendency to impute mental states to oneself and to others. One draws on theories of mind to understand other peoples' behaviours and psychological states, and by projecting oneself onto others. There are indications that, whereas chimpanzees have little mentalistic insight (Tomasello, 1999), the basic processes of theories of mind are universal in human infants (Lillard, 1998). Studies with young children give mixed results. Initial cross-cultural results seemed to point towards universality (Flavell, Zhang, Zou, Dong, & Qi, 1983, in China; Avis & Harris, 1991, with Baka pygmy children), whereas more recent research has pointed to cultural differences in the rate of development of theories of mind (Wahi & Johri, 1994, in India), or even structural differences linked to language. For example, Vinden (1996) used the standard "surprising objects" (e.g., a sponge that looks like a rock) and "deceptive container" (e.g., a matchbox full of pebbles) tasks with Jummnn Quechua children in Peru. These children

demonstrated an understanding of the appearance-reality distinction, but performed poorly on questions regarding representational change ("Before you touched the object, what did you think it was?) and false belief ("If another child just looks at the object, what would he think it is?"). The author explains these differences by the absence of explicit mentalistic vocabulary in the Quechua language. In another study involving Mofu children in Cameroon, Tolai and Tainae children of Papua New Guinea, and Western children attending a school in that country, Vinden (1999) found that almost all children from non-Western cultures had difficulty predicting an emotion based on a false belief.

Folk psychologies

Whether the basic processes of theories of mind turn out to be universal or not in children, there is the paradox that, according to ethnographic records, adults' theories of mind, or what Lillard (1998) calls "ethnopsychologies", vary a great deal from culture to culture. The author takes as typical examples the differential attraction to magic, different conceptual distinctions regarding thoughts and feelings, sensory inputs, and the links between body and mind, denying negative emotions, and different values regarding rational thought versus feelings, and science versus spirituality. As children become adults, they come to accept these different ethnopsychologies, yet little is known about the cognitive processes that this entails. In other words, there is a big gap between the psychological studies that attempt to assess specific thinking processes in children, and the ethnographic descriptions of ethnopsychologies such as reviewed by Lillard, reminding us of the important distinction between individual processes and collective representations pointed out by Harris and Heelas (1979).

Here again, we seem to come up against a struggle between paradigms. Cultural psychologists often advance explanations of behaviour in terms that are often used in folk psychology. Cognitive science, which may be regarded as a rival of folk psychology (Haselager, 1997), uses models as a primary means of understanding and explaining behaviour. The ease and speed with which common-sense reasoning and understanding takes place is unexpectedly difficult to capture in these models. This source of uneasiness in cognitive science has become known as "the frame problem". Folk psychology has a fair chance of being vindicated if cognitive science is not capable of answering the frame problem in a way that is compatible with at least the most central characteristics of folk psychology.

The question is whether cognitive science models or the folk psychological approach will dominate the study of cross-cultural human development. It is true that the status of folk psychology has to be decided on empirical grounds. Hence, finding an area in which folk psychological assumptions can be tested is of considerable importance, especially from the point of view of the analysis of human development. Parental belief systems

and their effect on the development of cognitive or social competence among children (Harkness & Super, 1996) represent one area in which some work has already been accomplished, and support for the role of parental ethno-theories in human development has been obtained (Briil, Dasen, Sabatier, & Krewer, 1999). We expect that many more new areas will emerge in the forthcoming decades to look for the application of folk psychological principles to issues of human development. At a later stage, however, an overarching theoretical framework may be required to put various pieces of folk psychological information together to develop a universal psychology of human development (Dasen, 1993).

Metacognition

Another area of research on cognitive development has become important in recent years, and is starting to be studied from a cross-cultural perspective. This is metacognition, or "knowledge about, and awareness of, one's own capabilities and cognitive plans vis-à-vis the task" (Davidson & Freedman, 1988). Metacognition includes knowledge about cognition, about oneself as a learner and the factors that influence one's performance (declarative knowledge), about the execution of skills (procedural knowledge) and about when and why to apply cognitive actions (conditional knowledge) (Schraw, 1989; Schraw & Moshmann, 1995), as well as control processes such as planning, monitoring, and evaluation. These authors distinguish three levels of representation:

- 1 Cognitive level: tacit (without any explicit awareness), domain-specific, with limited transfer.
- 2 Metacognitive level: informal, fragmentary, some across-domain transfer.
- 3 Conceptual level: formal (explicit and integrated) mental models and theories, broad transfer.

According to Schraw (1989), metacognition is acquired through autonomous learning, peer-regulated learning, and direct learning, the latter two mainly in schools. Hence, Western-type schooling at secondary level may be necessary but not sufficient for the attainment of at least the conceptual if not the metacognitive level, mirroring the conclusion Dasen and Heron (1981) have put forward for Piaget's formal operations.

Whether the metacognitive level is also dependent on schooling is an interesting research question, open to cross-cultural testing. There certainly are metacognitive skills developed outside of school. For example, Australian Aboriginal teacher trainees were found to possess metacognitive knowledge about indigenous story telling that seemed to be situation-specific, however, and difficult to transfer to school tasks (Davidson & Freedman, 1988). The same authors found socioeconomic and ethnic

differences in the metacognitive knowledge children bring to school (linked, for example, to the degree of reading in the home), and this was linked to success in school. Cultural differences in metacognition have been reviewed by Davidson (1994). Research on metacognition is linked to the topic of everyday cognition (Segall et al., 1999; Schliemann, Carrater, & Ceci, 1997), in which there is some cross-cultural information, for example on planning skills (Gauvin, 2001; Strohschneider & Güss, 1998; Tanon, 1994). We may hopefully expect much more research on the topic of metacognition, both in schools and in everyday contexts, in the next decade.

French social psychology and migrant studies

Over the past two decades, there has accumulated a considerable amount of research in French-speaking countries and regions of Europe and North America on the processes linked to the contact between people of diverse cultural origins, what the French call "interculturalisation" (a term they prefer to the more common "acculturation" in English). This research has been spurred by the increasing migrations from further afield than was the case with the traditional "guest workers" in Europe, and the belated understanding that these people (not just working hands but also their families) had come to stay.

We cannot summarise here even a small part of this research¹, but will take only one example: Camilleri (Camilleri & Malewska-Peyre, 1997) has established a most interesting typology of what he called "identity strategies", in other words a rich set of acculturation processes. Unfortunately—from our point of view (see also Dasen & Ogay, 2000)—the research is based almost exclusively on migrants from North Africa in France. Several aspects of the theory seem to be linked directly to this particular social and political situation, for example, fundamental differences in values linked to religion (Islam vs. Christianity), and the fact that the migrants are being despised and discriminated against by the host society. How would the theory stand up to a test with a different group of migrants in a different political situation? Sapru (1999), for example, has studied identity processes of Indian adolescents in Geneva, a group that suffers no racism or discrimination. Yet the parents use one of the strategies described by Camilleri, that of exaggerating some of the traits of the culture of origin (such as religious practices and the arts), mainly in order to keep their children busy and away from what they see as nefarious effects of the Western surroundings. In this example, we find the same strategy, but for different reasons.

¹ A French-speaking international organisation, the Association pour la Recherche Interculturelle (ARIC), has provided a network for researchers in this field, and has contributed to publish much of the work, for example as conference proceedings.

Lifespan developmental psychology

Lifespan developmental psychology is another example, close to the interests of IJBD readers. Major developments of great importance have taken place in this field, yet little cross-cultural testing has taken place. When Valsiner and Lawrence (1997) were asked to review the literature for Volume 2 of the *Handbook of cross-cultural psychology*, they could come up with only a handful of serious studies, and were therefore led to provide their own theoretical models. Of course, many studies exist that document various periods of the lifespan, such as infancy, adolescence, or old age, but these are always limited to that particular age range.

Neuropsychology

The tremendous advancement in neuropsychological studies in some specific areas has posed new challenges to developmental psychologists, including those who study patterns of development in a variety of cultural contexts. The neuropsychological approach attempts to discover the functional organisation of the brain as it relates to a variety of cognitive skills and abilities. Researchers in this field generally believe that cognitive functions associated with brain pathology have similar manifestations across members of the human species. However, neuropsychological tests tend to measure abilities that seem to be culturally learned². The cross-cultural evidence suggests that the performance on psychological tests is moderated by factors such as culture, ecological demands, language, and educational level of individuals or groups (Irvine & Berry, 1988).

Spatial ability may be taken as an example. Studies indicate that in comparison to agricultural populations, the hunting-gathering populations demonstrate highly developed spatial ability (Berry, 1976; K. Mishra, 1998; Mishra, Sinha, & Berry, 1996). This is evidenced by field-independent (highly differentiated) functioning of individuals on several perceptual, cognitive, and motor tasks. Silverman (1981) suggests that field dependence (low differentiation) on cognitive tasks is related to relative left-hemispheric dominance. Witelson and Swallow (1988) indicate that right-hemisphere lateralisation is responsible for several aspects of spatial perception among children and adults. Whether field-independence among hunter-gatherers is associated with right-hemispheric lateralisation or with long-term ecological adaptations (which in turn result in hemispheric lateralisation) is not known.

Our understanding of cultural differences in neuropsychological test performance is extremely limited so far. However, neuropsychological testing in different parts of the world has been undertaken with a universalistic

assumption of human brain functioning. The validity of this assumption has been questioned in recent years. Matthews (1992, p. 421) has observed that "a very limited kind of neuropsychology, appropriate to only a fraction of world's population, is presented to the rest of the world as if there could be no other kind of neuropsychology, and as if the educational and cultural assumptions [...] on which neuropsychology is based were obviously universal that applied everywhere in the world". One may perceive it as a "cultural construction" of neuropsychology. The possibility that different patterns of brain organisation may appear in the course of time due to different ecological demands cannot completely be ruled out.

In some research, an attempt has been made towards direct or indirect analyses of the impact of eco-cultural variables in neuropsychological test performance. Ardila (1995) has reviewed neuropsychological studies of perceptual and cognitive functions, bilingualism, illiteracy, and handedness. There is considerable evidence to suggest that the outcomes of neuropsychological assessments are influenced significantly by ecological and cultural factors. On the one hand, these findings point to a close linkage between biology and culture. On the other hand, they suggest that taking culture seriously does not exclude the possibility of taking biology into account (Keller, Poortinga & Schoelmerich, 2002). It seems that ecological conditions with which people negotiate their day-to-day life generate processes of adaptation at the biological and cultural levels simultaneously. The eco-cultural framework proposed by Berry et al. (1992) provides room for biological level adaptations. We may hope that researchers of human development would study seriously the processes of biological adaptation generated by long-lasting eco-cultural features of the populations.

APPROPRIATE THEORETICAL FRAMEWORKS

The concern for the search of appropriate methodology in the study of human developmental processes and their corresponding representations in the human brain raises the question of an appropriate theoretical framework that may be used to guide research in this field, and that allows for a meaningful integration of many diverse sets of data. Dasen (1998, in press) is providing a description and an attempt at integration of these frameworks. Research in developmental psychology has widely used the ecological model of Bronfenbrenner (1979, 1993). This model suggests a strategy through which one can look for variables in the proximal or distal environment of children in order to analyse their influences on development. Although within-culture variations in the development of children have been analysed often in terms of the variable influences involved at different levels, the model has not been much used in cross-cultural research. However, two introductory textbooks of cross-cultural psychol-

² For example, using a spoon or scissors, keying a lock, tooth-brushing, screwing a nut, or complex activities such as writing alphabets or reproducing words.

ogy, those of Gardiner, Mutter, and Kosmitzki (1997) and Segall et al. (1999), give it some importance.

Harkness and Super (1983, 1992; Super & Harkness, 1986, 1997) have proposed another framework, called "developmental niche", in which the developing child is situated in a system formed by the physical and social contexts, the caregivers' educational practices, and their "ethnotheories" or social representations concerning child development. This framework makes it clear that the unit of analysis should be neither the child alone nor the contexts alone, but the child in context, thus combining the perspectives of psychology and anthropology. The niche is an open system, itself set in the wider macro-social components that are taken care of by another useful theoretical framework, the "eco-cultural framework" developed over the years by Berry (1976, 1980; Berry et al., 1992; Segall et al., 1999). This itself has historical antecedents (cf. Berry, 1995; Jahoda, 1995), particularly Whiting's (1977) psycho-cultural model, in considering that culture is basically an adaptation to ecological and socio-historical contexts. The accommodation of cultural change as an important variable capable of changing cultural features and behavioural characteristics of individuals or groups extends the scope of this framework in comparison to other models (Mishra et al., 1996).

NEEDED FURTHER DEVELOPMENTS 2: APPLICATIONS OF CROSS-CULTURAL PSYCHOLOGY TO HUMAN AND SOCIAL DEVELOPMENT

Cross-cultural psychologists generally conduct research in settings where people experience a variety of problems. These range from developmental issues related to basic human needs (e.g., health, education) to social issues that are of vital concern in contemporary societies (e.g., environmental and cultural crises). Given this state of affairs, cross-cultural research on human development cannot be pursued only as a scientific enterprise; instead, such research always involves some inherent social implications. The growth of applied cross-cultural psychology (Brislin, 1990; Dasen, Berry, & Sartorius, 1988) can be linked to some of these concerns. Issues related to poverty, schooling, physical and mental health, environment, acculturation, and group relations have drawn considerable attention. Over the years, other problems (e.g., community intervention) have been added to the list as research topics. Berry, Mishra, and Tripathi (2002) indicate that issues of human and social development cannot be grasped and solved without a thorough understanding of the cultural context in which they are rooted. The study of human development processes in different cultural settings can be mutually benefiting in the sense of adopting a comprehensive approach to their solution. The goals of "applied developmental psychology" (Serpell, 1992) can be met only by analysing human development in the context of

child development programmes and policies pursued in different parts of the world. The third millennium looks forward to vigorous efforts in this direction.

WORKING CONDITIONS IN DIFFERENT CONTEXTS

Overcoming eurocentrism is one of the goals of a cross-cultural approach. However, this will only be possible by also reducing the Western hegemony in the means of producing research. It is absolutely normal that theories should be grounded in the socio-historical context in which they are devised, and it is this embeddedness that increases the likelihood of their being useful. However, this also means that, as long as more than 90% of the researchers reside in the North America and Europe, the majority of the research will show Western bias.

Pérez and Dasen (1999) have edited a special issue of the UNESCO journal, *Prospects*, to review the situation of educational research in various parts of the world (see also Akkari, Sultana, & Gurtner, 2001). There are enormous regional disparities in the number of researchers, and their means (such as funding and access to publications). In the past few decades, the situation has improved in many parts of Asia (Mishra, 1999), while it has deteriorated in Africa. A common problem is to bring interesting research that is being produced despite limited means to the attention of an international audience. Most of the research is being done for university degrees, and remains in the form of unpublished MA and PhD theses. This is an enormous waste of resources, and one may hope that the increasing availability of the Internet will provide some solution to this problem.

INDIGENISATION AND FOLK PSYCHOLOGY

One reaction to the Western bias in research and in textbooks has been the development of so-called "indigenous psychologies", i.e., the production by local psychologists of locally relevant theories based on local culture. Sinha (1997) has reviewed this trend; most of this type of research is done in Asia, although it is only weak in Latin America, and almost absent in Africa (but see Nsamenang, 1992). Here again, our own feeling is that we are witnessing a necessary, but temporary, swing of the pendulum. It is absolutely essential to acknowledge and give status to this local knowledge. In the long term, however, it would be a great disadvantage to have only an accumulation of idiosyncratic and incomparable pieces (Dasen, 1993); at some stage, a return to overarching theories will have to occur, fitting the pieces of the puzzle so as to create a truly "global" picture.

CONCLUSION

The relationship between culture and behaviour has been of an "on-again" and "off-again" kind. In the past several decades, culture was believed to suggest an inordinate degree of boundedness, homogeneity, coherence, and stability (Brumann, 1999). This conceptualisation of culture is not presently in wide acceptance. On the other hand, there has developed what Sahlin (1994) calls the "... fashionable idea that there is nothing usefully called a culture" (p. 386) in the past decade or so. There has also been a movement towards "writing against culture" (Abu-Lughod, 1991; Fernandez, 1994). The argument is that social reality is characterised by variability, inconsistencies, conflict, change, and individual agency, which are not subject to cultural explanations.

In the midst of these controversies, however, culture has exerted an influence beyond the borders of the discipline of anthropology. For example, Hannerz (1996, p. 30) observes that people now seem to agree that: "... culture is everywhere. Immigrants have it, business corporations have it, young people have it, women have it, even ordinary middle-aged men have it, all in their own versions ... We see advertising where products are extolled for "bed culture" and "ice cream culture", and something called "the cultural defence plea" is under debate in jurisprudence."

If such a state of affairs continues, we may hope that the analysis of cultural features will certainly find an inevitable place in any description and understanding of human behaviour. At the same time, a debate about the nature of behavioural explanations is also likely to continue. The main issue is whether explanations should be modelled on scientific theory-building, or on humanistic interpretation. This debate is very much alive today in the competing fields of cognitive science and folk psychology (Haselager, 1997), where the main question is about the right frame of mind. Can computational or neurocomputational models provide the right frame of mind, or can the folk systems of cognition (e.g., beliefs, hopes) do it?

A similar debate persists in anthropology as well (Moore, 1997). Fischer (1996, p. 11) argues for "the indissolubility of scientific and humanistic approaches to the study of human societies". D'Andrade (1996, p. 10) suggests that "the conflict is not between humanists and scientists, but between those who think that anthropology should be primarily a kind of political action group and those who think it should be primarily a kind of scholarly study". It is difficult to predict the future of these debates.

At the same time, the knowledge we have gained about the role of culture in human behaviour is primarily due to such controversies. In the field of cognitive development, such theoretical controversies have generated a series of insightful studies, and there have been serious efforts for rapprochement among them (Berry et al., 1992; Mishra, 1997). It may be noted that human sciences are prone to generate controversies, because they use human beings as subjects. Sciences where there is clear division between the

observer and the observed are less likely to provoke such controversies. As Moore (1997, p. 275) observes, "At a more fundamental level, we humans are simultaneously phenomena governed by laws of nature and chaotic self-creations with endlessly complex ideas about the meanings of existence. Any field that studies an organic actor like a human is bound to experience conflicts." It is expected that a multifaceted, multidimensional, and flexible vision will emerge towards an adequate understanding of culture and human development in the new millennium.

Cross-cultural (and cultural) psychology has long been a somewhat marginal, sometimes even exotic, enterprise, criticised for the absence of strong theory and for its weak methodology. But the situation has improved considerably in the last two decades, and we are now seeing many signs that "culture is taken seriously". The cross-cultural approach in psychology, just like the developmental approach, will have become completely successful when they both have disappeared as separate branches, i.e., when mainstream psychology considers that both a developmental and a cross-cultural perspective are absolutely essential.

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