Readings
on the
Development
of
Children

Second Edition

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Over the last few decades, psychologists have come to recognize the important role that culture plays in children’s development. One important trend has been the gradual shift away from laboratory-based research that relies on manipulation and control of isolated variables toward studies of behaviors as they occur in children’s everyday lives in the cultural communities in which they grow. However, understanding the importance of culture in development cannot result from changes in research methods alone. We must also adjust our ways of conceptualizing issues and reevaluate the theories on which we base our assumptions. In the following article Barbara Rogoff andilda Morelli discuss a contextual approach to development that focuses on the complex interaction between children’s development and the cultural system in which their growth occurs.

This article summarizes how cultural research can inform mainstream psychology. It focuses on an organizing theme that has been explored in research in non-Western groups: the role of specific cultural practices in organizing human endeavors. This perspective has influenced the direction of mainstream research, encouraging the advancement of our ideas of the domain-specific nature of psychological processes, and their relation to sociocultural practices. The article provides a brief description of Vygotsky’s theoretical approach, a perspective comfortable for many working within the tradition. Finally, a discussion of research on children in cultural groups in the United States


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Attention to the cultural context of child development has yielded important insights into the opportunities and constraints provided by the society in which children mature. Research with children of different cultures provides a broader perspective on human development than is available when considering human behavior in a single cultural group.

The purpose of this article is to indicate how cultural research can inform mainstream psychology. We discuss one organizing theme that has been explored in research on non-Western groups, the role of specific cultural practices in organizing all human endeavors. This perspective has influenced the direction of mainstream research, encouraging the advancement of our ideas of the domain-specific nature of psychological processes, and their relation to sociocultural practices. We provide a brief description of Vygotsky's theoretical approach, a perspective comfortable for many working within this tradition. Finally, we suggest that the cultural perspective can be useful in advancing research on issues involving American children varying in cultural background.

LESSONS LEARNED FROM CROSS-CULTURAL STUDIES OF DEVELOPMENT

Investigations of the role of culture in development have taken advantage of the impressive variations in the human condition, which occur around the world, to advance understandings of human adaptation. Reviews and discussion of cross-cultural developmental research appear in Bornstein (1980); Datsen (1977); Field, Sostek, Vierze, and Lederman (1981); Laboratory of Comparative Human Cognition (1979, 1983); Leventhal, Dukin, and Rosenfeld (1977); LeVere (in press); Munroe and Munroe (1975); Munroe and Munroe, and Whiting (1981); Rogoff, Gauvain, and Ellis (1984); Rogoff and Mistry (1985); Schieffelin and Ochs (1986); Serpell (1971); Super and Harkness (1980); Triandis and Heclo (1981); Wagner and Stevenson (1982); Werner (1979); and Whiting and Edwards (1988).

Cross-cultural studies have focused especially on children in nontribal societies because these children contrast in important ways with children from the United States and other Western nations. This first section thus describes lessons learned from cross-cultural studies involving children around the world; psychological research on minorities in the United States has followed a somewhat different course, described later.

Perspectives Offered by Cross-cultural Research

An important function of cross-cultural research has been to allow investigators to look closely at the impact of their own belief systems (folk psychology) on scientific theories and research paradigms. When subjects and researchers are from the same population, interpretations of development may be contaminated by implicit cultural assumptions. With subjects sharing researchers' belief systems, psychologists are less aware of their own assumptions regarding the world of childhood, the involvements of others in child development, and the physical and institutional circumstances in which development is embedded. Working with people from a quite different background can make one aware of aspects of human activity that are not noticeable until they are missing or differently arranged, as with the fish who repeatedly is unaware of water until removed from it. Viewing the constraints in life's arrangements in different cultures has enabled psychologists to examine very basic assumptions regarding developmental goals, the skills that are learned, and the contexts of development.

Cross-cultural research also allows psychologists to use cultural variation as a natural laboratory to attempt to disintegrate variables that are difficult to tease apart in the United States and to study conditions that are rare in the United States. For example, one can examine how gender differences manifest themselves in differing cultural circumstances (Whiting & Edwards, 1988). Cross-cultural studies have examined the extent to which advances in intellectual skills are related to schooling versus children's age, a comparison that cannot be made in a country with compulsory schooling (Laboratory of Comparative Human Cognition, 1979; Rogoff, 1981). Other research examines conditions that are seen as normal in other cultures but carry connotations of being problematic in the United States. For example, studies have been made of gender roles in polygynous societies in which fathers are absent from the household because they have several wives (Munroe & Munroe, 1975). More research and infant psychological development in societies in which nonmaternal care (care by other adults or by child nurses) is valued and expected (Fox, 1977; Tromick, Morelli, & Winn, 1987, Zaslow, 1980).

Another function of cross-cultural studies is to examine the generality of theories of development that have been based on Western children. Examples
include investigations of the universality of the stages of development proposed by Piaget, the family role relations emphasized by Freud, and patterns of mother-infant interaction taken to index security of attachment (Brennan &国企y, 1985; Dunn, 1977; Dunn & Heron, 1981; Greenfield, 1976; Malinowski, 1927; Price-Williams, 1980). In such research, modification to the assumptions of generality have often been suggested by cross-cultural findings. For example, findings that the highest stage of Piaget's theory, formal operations, seldom can be seen in non-Western cultures prompted Piaget to modify his theory in 1972 to suggest that the formal operational stage may not be universal but rather a product of an individual's expertise in a specific domain.

Research in a variety of cultures has also provided evidence of impressive regularities across cultures in developmental phenomena. For instance, there is marked similarity across cultures in the sequence and timing of sensorimotor milestones in infant development, smiling, and separation distress (Gewirtz, 1965; Goldberg, 1972; Konner, 1972; Suppe, 1981; Weiner, 1988) and in the order of stages in language acquisition (Bowerman, 1981; Slatin, 1973).

An Emphasis on Understanding the Context of Development

An important contribution resulting from cultural challenges to researchers' assumptions is the conceptual restructuring emphasizing that human functioning cannot be separated from the contexts of their activities. Although there are other sources of contextual theorizing in the field of psychology, an important impetus has been the consistent findings that behavior and development vary according to cultural context.

Developmental researchers who have worked in other cultures have become convinced that human functioning cannot be separated from the cultural and more immediate context in which children develop. They observed that skills and behavior that did not appear in laboratory situations appeared in the same individuals in everyday situations. A subject whose logical reasoning or memory in a laboratory task seemed rudimentary could skillfully persuade the researcher or remind the "researcher of promises outside the laboratory, or might be very skilled in a complex everyday task such as navigation or weaving (Cole, 1975; Cole, Hood, & McDermott, 1978; Gluckin, 1970; Laboratory of Comparative Human Cognition, 1979; Rogoff, 1981; Scribner, 1976). Such informal observations called into question the widespread assumption that individuals' skills and behaviors have a generality extending across contexts.

Systematic studies noted the close relation between the skills and behavior exhibited by an individual and the contexts of elicitation and practice (Law, 1977; Saxe, 1918). Children's nurturance and aggression varied as a function of the age and gender of the people with whom they interacted (Wenzer, 1983; Whiting & Whiting, 1975). Perceptual modeling skills of Zambian and English children varied as a function of the cultural familiarity of the specific modeling activity (Serpell, 1979). Literacy provides practice with specific cognitive activities, leading to advances in particular skills rather than conferring general cognitive ability (Scribner & Cole, 1941). Such results point to the importance of considering the contexts in which people practice skills and behaviors, as well as those in which we as researchers observe them.

Many of the cognitive activities examined in developmental research, such as memory, perception, logical reasoning, and categorization, have been found in cross-cultural studies to relate to children's experience of schooling (Lave, 1977; Rogoff, 1981; Sharp, Cole, & Lave, 1979). The extensive studies of the relation between school and cognitive skills call attention to a context of learning that is easily overlooked as an influence on cognitive development in the United States, where school is ubiquitous in the lives of children.

Remembering or classifying lists of unrelated objects may be unusual activities outside of literate school-related activities (Goody, 1977; Rogoff & Waddell, 1982). The taxonomies of species seen as most appropriate in literate situations may not be valued in other circumstances, as is illustrated by Glick's (1957) report of Kpelle subject treatment of a classification problem. They sorted the 20 objects into functional groups (e.g., knife with orange, potato with hoe) rather than into categorical groups that the researcher considered more appropriate. When questioned, they often volunteered that that was the way a wise man would do things. "When an exasperated experimenter asked finally, "How would a fool do it?" he was given back sorts of the type that were initially expected—four neat piles with food in one, tools in another, and so on" (p. 636).

People who have more schooling, such as older children and Western peoples, may excel on many kinds of cognitive tests because not only the skills but also the social situations of testing resemble the activities specifically practiced in school. In contrast with everyday life, where people classify and remember
things in order to accomplish a functional goal, in schools and tests they perform in order to satisfy an adult's request to do so (Skinner, 1983). Super, Harkness, & Baldwin, 1977). Individuals with experience in school are likely to have more experience carrying out cognitive processes at the request of an adult, without having a clear practical goal (Corden & John, 1978; Rogoff & Mistry, in press).

Similar emphasis on contexts of development has come from other domains of cross-cultural research. In the area of infant sensorimotor development, Super (1982) and Kilbride (1980) have argued that the controversy over precocious development in African infants is best resolved by considering the practices of the cultural system in which the babies develop. African infants routinely surpass American infants in their rate of learning to sit and to walk, but not in learning to crawl or to climb stairs. African parents provide experiences for their babies that are apparently intended to teach sitting and walking—propping young infants in a sitting position supported by rolled blankets in a hole in the ground, exercising the newborn's walking reflex, and bouncing babies on their feet. But crawling is discouraged, and stair-climbing skills may be limited by the absence of access to stairs. Infant sensorimotor tests assess an aggregate of skills varying in rate of development according to the opportunity or encouragement to practice.

Even infant sleep patterns vary as a function of culturally determined sleeping arrangements (Super, 1981). In the United States, the common developmental milestone of sleeping for eight uninterrupted hours by age four to five months is regarded as a sign of neurological maturity. In many other cultures, however, the infant sleeps with the mother and is allowed to nurse on demand with minimal disturbance of adult sleep. In such an arrangement, there is less parents' motivation to enforce "sleeping through the night," and Super reported that babies continue to wake about every four hours during the night to feed, which is about the frequency of feeding during the day. Thus, it appears that this developmental milestone, in addition to its biological basis, is a function of the context in which it develops.

Cross-cultural studies demonstrating that individuals' behavior and skills are closely tied to specific activities have contributed to examination of important questions regarding the generality of the development of skills and behaviors, the structure of the ecology of development, and how to conceptualize the sociocultural context of practice of skills and behavior. These issues have recently pervaded the study of developmental psychology, with some large degree of influence from research on culture.

Conceptualizing the Sociocultural Context

Many researchers in the field of culture and development have found themselves comfortable with Vygotsky's theory, which focuses on the sociocultural context of development. Vygotsky's theory, developed in the 1930s in the Soviet Union, has gradually become more accessible to English-speaking researchers, with a rapid upsurge of interest following the publication of Mind in Society in 1978 (see also Laboratory of Comparative Human Cognition, 1983; Rogoff, 1982; Scribner & Cole, 1981; Wertsch, 1985a, 1985b). Although Vygotsky's theory focuses on cognitive development, it is gaining interest with researchers in emotional and social development as well, perhaps due to its integration of cognitive and social processes, as well as its emphasis on socialization (see, for example, Newton & Newson, 1975).

Vygotsky's theory offers a picture of human development that stresses how development is integrable from human social and cultural activities. This contrasts with the image of the solitary little scientist provided by Piaget's theory. Vygotsky focused on how the development of higher mental processes such as voluntary memory and attention, classification, and reasoning involve learning to use inventions of society (such as language, mathematical systems, and memory devices) and how children are aided in development by guidance provided by people who are already skilled in these tools. Central to Vygotsky's theory is a stress on both the institutional and the interpersonal levels of social context.

The Institutional Level

Cultural history provides organizations and tools useful to cognitive activity (through institutions such as school and inventions such as the calculator or literacy) along with practice that facilitate socially appropriate solutions to problems (e.g., norms for the arrangement of grocery shelves to aid shoppers in locating or remembering what they need; common mnemonic devices). Particular forms of activity are practiced in societal institutions such as schools and political systems. For example, Kohlberg's hierarchy of moral development can be tied to the political system of a society, with the bureaucratic systems' perspective (Stage Four) appropriate for people whose political frame of reference is a large industrialized society, but inappropriate for people in small traditional societies.
tribal societies: "The two types of social systems are very different (though of course both are valid work-
ting types of systems), and thus everyday social life in
them calls forth different modes of moral problem
solving whose adequacy must be judged relative to their particular contexts" (Edwards, 1981, p. 274).
The political institutions of a society may channel in-
dividual moral reasoning by providing standards for
the resolution of moral problems.
The cultural institution of Western schooling
provides norms and strategies for performance that
are considered advanced in cognitive tests. Goodnow (1976) has suggested that differences between cul-
tural groups may be ascribed largely to the interpre-
tation of what problem is being solved in the task
and to different values regarding "proper" methods
of solution (e.g., speed, reaching a solution within
a minimum of moves or redundancy, physically han-
dling materials versus mental shuffling). The cultural
tools and techniques used in school involve specific
conventions and genres, such as conventions for rep-
resenting depth in two-dimensional pictures and
store problem genres (similar to logical syllogisms)
in which one must rely only on information given
in the problem to reach the answer. Cross-cultural
studies indicate that nonschooled subjects are unfa-
miliar with such conventions and genres. For exam-
ple, they are uncomfortable having to answer ques-
tions for which they cannot verify the premises
THE INTERPERSONAL LEVEL In Vygotsky's theory
(1978), children develop skills in higher mental
processes through the immediate social interactional
context of activity, as social interaction helps struc-
ture individual activity. Information regarding tools
and practices is transmitted through children's inter-
action with more experienced members of society
during development, and patterns of interpersonal
relations are organized by institutional conventions
and the availability of cultural tools. For example,
social aspects of experimental and observational sit-
uations relate to cultural practices. The relation be-
 tween experimenter and subject may be rapidly grasped
by Western children familiar with testing in
school, but it may be highly discrepant from familiar
adult-child interactions for non-Western children
and young Western children. In some cultural set-
tings, it is unusual for an adult who already knows
an answer to request information from a child who
may only partially know the subject matter, and it
may be inappropriate for children to show off
knowledge (Cazden & John, 1971; Irvine, 1978;
Rogoff, Gauvin, & Ellis, 1984).

Similarly, in observational situations such as
mother-child interaction, culturally varying agendas
for public behavior may influence what people do in
the presence of an observer (Zaslow & Rogoff, 1981).
"It seems likely that one influence of the ob-
server on parents is to produce a heightened fre-
cuency of behavior that the participants judge to be
more socially desirable and in which behavior consid-
ered socially undesirable" (Pederzen, 1980, p. 181).

Graves and Glick (1978) found that exchanges be-
tween middle-class mothers and their toddlers varied
as a function of whether mothers thought that they
were being videotaped. Mothers spoke more, used
indirect directives more often, and spent more time
in joint interactive focus with their children when they
thought they were being observed. Clearly, peo-
ple's interpretation of the goals of a task and cul-
tural rules guiding social behavior influence the
display of public behavior. Values regarding interper-
sonal relations may be inseparable from the activities
observed for research purposes.

In addition to the cultural structuring of social
interaction that has importance for research into
human development, social interaction provides an
essential context for development itself. Vygotsky
stressed that interpersonal situations are important
for guiding children in the development of the
skills and behaviors considered important in their
culture. Working within the "zone of proximal
development," adults guide children in carrying out
activities that are beyond the children's individual
skills, and this joint problem solving provides chil-
dren with information appropriate to stretch their
individual skills. Cole (1981) argues that the zone of
proximal development is "where culture and cogni-
tion create each other." Thus Vygotsky's conceptu-
alization of how individual efforts are embedded
in the interpersonal and institutional contexts of
culture is proving useful for understanding the rela-
tion between culture and the individual.

RESEARCH ON CULTURE INVOLVING
MINORITIES IN THE UNITED STATES

Historically, research on minorities in the United
States has followed a different course than the
cross-cultural investigations discussed earlier. For
many years, researchers were intent on comparing
the behavior and skills of minority children with
mainstream children without taking into consid-
eration the cultural contexts in which minority
and mainstream children develop. This approach in-
volved "deficit model" assumptions that man-
stream skills and upbringing are normal and that variations observed with minorities are aberrations that produce deficits; intervention programs were designed to provide minority children with experiences to make up for their assumed deficits (Cole & Bruner, 1971; Hilliard & Vaughn-Scott, 1982; Howard & Scott, 1981; Ogba, 1982).

The deficit model previously used in research on minority children contrasts sharply with the assumptions of the cross-cultural approach, which attempts to avoid ethnocentric evaluation of one group’s practices and beliefs as being superior without considering their origins and functions from the perspective of the reality of that cultural group. With research in their own country, however, researchers have had more difficulty avoiding the assumption that the majority practices are proper (Ogba, 1982). Variations have been assumed to account for the generally lower social status of the minority group members. It is only recently, and largely through the efforts of researchers with minority backgrounds, that deficit assumptions have been questioned in research on minority children.

The working model that appears to predominate in current minority research is one in which the positive features of cultural variation are emphasized. Although this is a valuable shift, we feel that research on minorities must move beyond reiterating the value of cultural diversity and begin more seriously to examine the source and functioning of the diversity represented in the United States to increase our understanding of the processes underlying development in cultural context.

Questions

1. According to Rogoff and Morelli, how does incorporation of culture in developmental psychology change our understanding of the process of human development?

2. Are there any developmental processes that are not influenced by culture? If so, what are they and why doesn’t culture affect them?

3. Institutions of society, especially the availability and types of schools, play an important role in human development. What effect might inequalities in schooling within a society have on individual psychological development?

References


Not only is the diversity of cultural backgrounds in our nation a resource for the creativity and future of the nation, it is also a resource for scholars studying how children develop. To make good use of this information, cultural research with minorities needs to focus on examining the processes and functioning of the cultural context of development. This requires “unpacking” culture or minority status (Whiting, 1976) so as to disentangle the workings of the social context of development. This has become a central effort of cross-cultural research on non-Western populations.

Pioneering researchers of minorities are also beginning to look at the contexts in which children from different cultures develop, and these efforts provide a basis for a greater understanding of how culture channels development. (Examples include Brown & Reere, 1985; Cazden, John, & Hymes, 1975; Chisholm, 1983; Erickson & Mohatt, 1982; Laboratory of Comparative Human Cognition, 1986; Ogba, 1982.) It is notable that some of the most interesting efforts involve combining approaches from anthropology and education with those of psychology (see also recent issues of Anthropology and Education Quarterly).

The potential from research on cultural groups around the world as well as down the street lies in its challenge to our systems of assumptions and in the creative efforts of scholars to synthesize knowledge from observations of differing contexts of human development. Such challenge and synthesis is fruitful in the efforts to achieve a deeper and broader understanding of human nature and nurture.
Introduction

caretaking of Eve (pygmy) infants. American Anthropologist, 89 (1), 96-106.


