

CULTURAL CONCEPTIONS OF LEARNING AND DEVELOPMENT

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Appropriately, this chapter begins where the excellent chapter by Pedro Portes from the first edition of this Handbook, entitled "Ethnicity and Culture in Educational Psychology," leaves off. In his penultimate paragraph, Portes argues:

If teaching and learning are regarded as a single unitary process, then it may be argued that the process is, in fact, different for students from diverse cultures. The difference is not necessarily because of fixed, intrapersonal characteristics of students, such

as so-called learning styles, but rather *learned* styles, identities, and relations. (Portes, 1996, p. 353).

In this chapter, we will consider teaching and learning to be part of a unitary cultural system. And we focus on how key differences in "*learned* styles, identities, and relations" are amalgamated into two fundamentally different cultural conceptions of learning and development. One cultural conception is termed individualistic, the other collectivistic or sociocentric. The

TABLE 29.1. Contrasting Pathways of Learning and Development

Domain	Individualistic Pathway	Collectivistic/Sociocentric Pathway
<i>Identity</i>	Individual identity stronger	Group, especially family identity stronger
<i>Relations between material and social world</i>	Ownership of property, Sharing by choice	Responsibility to share
<i>Preferred social style</i>	Standing out	Fitting in
<i>Ethnotheory of development and socialization</i>		
Ideal endpoint	Independence, Personal achievement, Individual success	Interdependence, Social responsibility, Contribution to family success
Most important relationship	External experts	Family: older generation for childrearing knowledge
<i>Intelligence, knowledge, & apprenticeship</i>		
Most important type of intelligence	Scientific/Academic/Cognitive	Social/Relational
Most important type of knowledge	Technical expertise Knowledge of physical world Factual knowledge	Knowledge of social roles Knowledge connected to social world Narrative knowledge
Valued apprenticeship processes	Independent learning Active participation Praise	Working together Observation Criticism
<i>Communication</i>		
Preferred communication style	Verbal	Nonverbal
Most important aspects of child's verbal communication	Speaking, Self-expression	Comprehending, Respect for authority
Most important type of socializing communication	Questions	Directives

Note: These contrasting aspects to learning and developmental are defined by group orientation. No society is completely individualistic or collectivistic, but definite cultural patterns and preferences exist. Cultures themselves change over time, but child-rearing values may persist over generations.

specific contrasts that will concern us in the rest of this chapter are presented in Table 29.1. These are portrayed as idealized pathways of learning and development and do not describe any specific person or even all members of a particular ethnic group. Within each group, members can be diverse with regard to socioeconomic status, levels of formal education, and rural or urban backgrounds, affecting their developmental pathway at different times. Nevertheless, child-rearing values can persist over several generations even in new contexts (Lambert, Hammers, & Frasure-Smith, 1979).

In the first part of the chapter we introduce these two contrasting cultural conceptions of learning and development. In the second part of the chapter, we draw out their implications for education in a culturally diverse society. Although both the conceptions and the educational implications draw heavily on prior writing (Greenfield et al., 2003; Greenfield & Suzuki, 1998; Greenfield, Trumbull, & Rothstein-Fisch, 2003; Trumbull, Rothstein-Fisch, Greenfield, & Quiroz, 2001), the present chapter provides a new synthesis linking cultural pathways of development to their implications for education and educational psychology in a culturally diverse society.

TWO PATHWAYS OF LEARNING AND DEVELOPMENT: THEIR IMPLICATIONS FOR EDUCATION AND EDUCATIONAL PSYCHOLOGY

In recent years, a body of evidence has cohered around a unifying and powerful way to tie together cultural conceptions of learning and development. With origins in both developmental psychology (Greenfield & Bruner, 1966) and anthropology (Whiting & Whiting, 1973), this parsimonious theory posits two idealized developmental pathways: one emphasizing individual identity, independence, self-fulfillment, and standing out; the other emphasizing group identity, interdependence, social responsibility, and fitting in (Greenfield, Keller, Fuligni, & Maynard, 2003). The first pathway is termed *individualistic*, the latter, *collectivistic* or *sociocentric*.

Each idealized pathway is part of a larger sociocultural system (Keller, 1997, 2003). The independent pathway arises as an adaptation to a large-scale, urban, rich, commercial environment featuring a highly developed system of formal education and advanced technology. The accumulation of personal goods is adaptive in this type of environment. The interdependent pathway arises as an

adaptation to a small-scale face-to-face village environment with a subsistence economy and a system of informal education. Sharing goods is adaptive in this type of environment.

Immigration, conquest, and colonization all tend to incorporate people from the first kind of society into the second. When this happens, children are exposed to two contrasting and often conflicting socializing forces that are very relevant to the educational psychology of many immigrant, Native American, and Native Hawaiian children in the United States, as well as the children of immigrant or conquered peoples in other industrialized countries such as Western Europe or Australia.

The first part of the chapter lays out these two developmental pathways and the value systems that generate them. The second part documents the cross-cultural value conflict and misunderstanding that ensue when children raised in a collectivistic home culture are exposed to the "mainstream" culture of individualism at school. In this situation, the home culture socializes children to follow the interdependent pathway of development, while the school culture socializes them to follow the independent pathway of development. This situation creates the need for educational intervention. "Bridging Cultures,"¹ described in the second part of the chapter, is just such an intervention; it was designed to alleviate the cross-cultural value conflict experienced by most immigrant families from Mexico and Central America when they send their children to school in the United States.

At a basic level, the independent pathway and the culture of individualism emphasize individual success, whereas the interdependent pathway and the culture of collectivism emphasize the success of the group as a whole. In collectivistic cultures, people are more likely to identify their own personal goals with those of the group—extended family, religion, or other valued group (Brislin, 1993). When asked to complete the statement, "I am..." collectivists are more likely to respond with reference to an organization, family, or religion. Individualists tend to list trait labels referring to aspects of their personalities, such as "hard-working," "intelligent," or "athletic" (Triandis, Brislin, & Hui, 1988). Not surprisingly, the United States is the most individualistic country in the world (Hofstede, 2001). However, this developmental pathway is hardly universal—70 percent of the world's cultures can be described as collectivistic (Triandis, 1989).

AN ETHNOTHEORY FOR EACH DEVELOPMENTAL PATHWAY

Whereas psychologists have explicit theories of human development, parents and other lay people have implicit ethnotheories. These implicit conceptions both reflect and instantiate cultural values. An ethnotheory of development comprises an implicit definition of the ideal child and beliefs about what socialization practices will produce this ideal (Goodnow, 1988; McGillicuddy-De Lisi & Sigel, 1995). Ethnotheories of human development are both shared and negotiated among members of cultural communities. In slow-changing, subsistence-based ecologies, ethnotheories are transmitted vertically from generation to generation within the family. This process yields continuity over historical time. In complex and fast-changing societies, in contrast, theories of parenting are negotiated horizontally within each generation. This process often utilizes resources outside the family, for example, the media and experts such as pediatricians (Hewlett & Lamb, 2002; Keller et al., 1984). These sources of ethnotheories of development and socialization yield substantial differences in child rearing practices between generations.

Relevant to our theoretical paradigm, research on ethnotheories of development has unraveled independence and interdependence as core dimensions, applicable to all developmental domains (Chao, 1994; Gutierrez & Sameroff, 1990; Yovsi & Keller, 2003). Participants from non-Western cultural communities, such as Chinese (Chao, 1994), Japanese (Rothbaum, Weisz, Pott, Miyake, & Morelli, 2000), Indians (Keller et al., 2005; Saraswathi, 1999), West Africans (Ogunnaike & Houser, 2002, for Nigeria; and Nsamenang, 1992; Yovsi, 2001; Keller, Hentschel et al., 2004, for Cameroon), or Puerto Ricans (Harwood, Schoelmerich, Ventura-Cook, Schulze, & Wilson, 1996) hold parental ethnotheories that express the cultural ideal of interdependence. These ethnotheories stress decency (responsibility, honesty) and proper demeanor (politeness, respect for elders, loyalty to family) for social and cognitive developmental domains (Harwood, 1992).

Participants from Western industrialized cultural communities, such as Germans (Keller et al., 2005), European Americans (Harwood et al., 1996) or the Dutch (Harkness, Super, & van Tijen, 2000), hold parental ethnotheories that express the cultural ideal of independence and individualism. These ethnotheories stress

¹The term "Bridging Cultures" is used to refer to both a specific project and to the approach associated with it.

personal achievement and independence (creativity, curiosity, assertiveness).

High socioeconomic status and formal education are associated with a more individualistic orientation (Keller et al., 2005; Palacios & Moreno, 1996; Tapia-Urbe, LeVine, & LeVine, 1994). Nonetheless, these cultural orientations persist across various socioeconomic and educational backgrounds (Keller et al., 2005; Harwood et al., 1996). As we describe the ethnotheories in this paper, another caution is in order. The features of each pathway refer to relative group differences. There are individual differences in every group, especially in complex, modern societies. These group differences are a matter of emphasis; they are not absolute.

Socialization practices that function to actualize a particular ethnotheory of development begin at birth or even before. In short, a parent's ethnotheory of child development generates socialization practices that move the child along a particular cultural pathway of development.

INTELLIGENCE, KNOWLEDGE, AND APPRENTICESHIP: A CONCEPTION FOR EACH CULTURAL PATHWAY

Theories and Ethnotheories of Intelligence and Knowledge

Scientific theories turn out to be more formalized derivatives of ethnotheories. In other words, scientific theories have their cultural roots, too. In developmental psychology, the classical theory of intelligence is that of Piaget. Understanding the basis for Western scientific thought was Piaget's most fundamental theoretical concern (Piaget, 1963/1977). Under Inhelder's leadership, Piaget investigated the development of scientific thought (chemistry and physics) in a set of experimental studies (Inhelder & Piaget, 1958). This body of theory and research implies the importance of scientific intelligence as a developmental goal. Conceptually, the goal of scientific intelligence belongs to the individualistic pathway because it emphasizes the person in relation to the world of objects rather than the world of people. This goal for the development of intelligence can be seen as continuous with infant caregiving practices that emphasize leaving the infant alone to manipulate technologically appealing toys.

In sharp contrast, social intelligence has been found to be the predominant ideal in Africa (e.g., Dasen, 1984; Nsamenang & Lamb, 1994; Serpell, 1993; Wober, 1974). For instance, the central feature of the Baoule concept of intelligence in Ivory Coast is willingness to help others

(Dasen, 1984). Whereas the most comprehensive theory of development in Europe is Piaget's theory of cognitive development, the most comprehensive theory of development in Africa is that of Nsamenang, who outlines stages of development in terms of social roles (Nsamenang, 1992). In general, African cultures not only emphasize social intelligence, but also see the role of technical skills as means to social ends (Dasen, 1984). Such conceptions can be seen as collectivistic conceptions of intelligence (Segall, Dasen, Berry & Poortinga, 1999) and as continuous with infant caregiving practices that emphasize close bodily contact between infant and caregiver, rather than separation and independent manipulation of toys (Keller, 2003).

Closely related to the individualistic and collectivistic conceptions of intelligence are two different conceptions of knowledge. In a Maya community in Chiapas, Mexico, the word *na*, meaning "to know," emphasizes a more person-centered meaning, compared with the English word *know*. Whereas "to know" in English always involves the mind, *na* often involves the heart and soul. (According to Li, 2002, a similar concept of "heart and mind for wanting to learn" is found in China.) Whereas *knowing* connotes factual knowledge, theoretical understanding, or know-how, *na* also connotes knowledge of practice that is habitual and characteristic of a given person; it is very much akin to character (Zambrano, 1999). The former type of knowledge is more important in a culture valuing the individual's possession of technical expertise. The latter is more important in a culture placing a greater value on social character.

A similar contrast has been found between Native American and European American conceptions of giftedness (Romero, 1994). This research shows that, whereas the mainstream U.S. society focuses on identifying and meeting the needs of the "cream of the crop," an individualistic valuing of children who stand out from the group in intelligence or knowledge, Keres-speaking Pueblo Indians focus on community and inclusion. In this conception, the special qualities of a "gifted" child are supposed to contribute to the well-being and cohesiveness of the community.

Cultural Modes of Apprenticeship and Creativity

These two ethnotheories of intelligence and knowledge are supported by two different sets of apprenticeship practices and two different concepts of creativity. By apprenticeship, we simply mean informal teaching and learning, a type of transmission that has evolved from primitive roots in nonhuman primates (Boesch, 1991; Greenfield et al., 2000; Whiten, 1999). By a cultural

concept of creativity, we mean simply what is considered desirable as the endpoint of a creative process. We discuss creativity along with apprenticeship because often one learns how to create something through an apprenticeship process—be it weaving out of school, writing in school, or computer programming in either situation. The first part of this section deals with apprenticeship, the second part with creativity.

Corresponding to the Keres concept of giftedness, apprenticeship processes that are valued by the Keres include cooperation, mentorship, and intergenerational modeling. "Keen observation, attentiveness, and focused listening are important methods of learning" (Romero, 1994, p. 53), while methods valued in the individualistic framework—questioning, skepticism, and curiosity—are not promoted.

Empirical study of apprenticeship documents two basic models of apprenticeship, one more independent and one more interdependent. The interdependent model is found in traditional weaving apprenticeship in one Maya community and in modes of guiding children in an experimental puzzle task in another Maya community (Chavajay & Rogoff, 2002; Greenfield, Maynard, & Childs, 2003). These modes seem adapted to subsistence economies in which learning takes place in family settings. Indeed, both studies find changes in the model with changes in the ecological environment.

Weaving apprenticeship moves toward a more independent mode of learning as subsistence is replaced by commerce (Greenfield, 2000, 2004; Greenfield, Maynard, & Childs, 2003). With formal education, the way in which mothers guide puzzle construction moves from shared multiparty engagement (the whole group focusing on a single aspect of the puzzle) toward division of labor where individuals or dyads work separately on different task components (Chavajay & Rogoff, 2002). Both commerce and formal schooling are associated with a more individualistic mode of apprenticeship (Greenfield, 2000; Tapia-Urbe et al., 1994).

The concept of creativity changes in parallel ways. In the same Zinacantec Maya community where weaving learners became more independent as commerce developed, the concept of creativity in textile production also changed. At the time when interdependence characterized weaving apprenticeship, woven and embroidered clothing did not differ noticeably from woman to woman or from man to man; and clothing signified, above all, membership in a particular ethnic group. However, when weaving learners became more independent, there was also a movement from a community definition of creativity to an individual one. That is, woven and embroidered designs became more highly differentiated and individualized, and creativity took on a meaning more familiar to

us—creating something that differentiates an individual by being new and innovative (Greenfield, 2000).

Cultural Modes of Communication

Communication is an essential part of both informal apprenticeship learning and formal education. Each developmental pathway is nurtured and socialized by its own preferred modes of communication. In turn, these differing modes of communication socialize the developing child to become skilled in different modes of communication.

Nonverbal Communication or Verbalization? The Cultural Role of Empathy, Observation, and Participation.

Azuma (1994) notes that Japanese mothers (and nursery school teachers) rely more on empathy and nonverbal communication, whereas mothers in the United States rely more on verbal communication with their children. He sees a connection between the physical closeness of the Japanese mother-child pair (characteristic of the interdependent pathway of development; Greenfield & Suzuki, 1998) and the development of empathy as a mode of communication. He points out that verbalization is necessary when there is greater physical and psychological distance between parent and child. The development of empathy paves the way for learning by osmosis, in which the mother does not need to teach directly; she simply prepares a learning environment and makes suggestions. In turn, the child's empathy for the mother motivates learning; this tradition survives in the families of third-generation Japanese-American immigrants (Schneider, Hieshima, Lee, & Plank, 1994).

Closely related to empathy and learning by osmosis are the use of observation and participation as forms of parent-child communication and socialization. Whereas verbal instruction is particularly important in school-based learning, observation and co-participation of learner and teacher are very central to the apprentice-style learning that is common in many cultures (Rogoff, 1990). Often master and apprentice are parent and child, as in Childs & Greenfield's (1980) study of informal learning of weaving in a Maya community of highland Chiapas, Mexico.

Both learning by observation and co-participation with a parent imply a kind of closeness and empathy between parent and child. For example, in Zinacantec Maya weaving apprenticeship, the teacher would sometimes sit behind the learner, positioned so that two bodies, the learner's and the teacher's, were functioning as one at the loom (Maynard, Greenfield, & Childs, 1999). Verbal communication and instruction, in contrast, imply using

words to bridge the distance through explicitness, thus reducing the need for empathetic communication.

A discourse study by Choi (1992) reveals a similar pattern of differences between Korean and Canadian mothers interacting with their young children. Comparing middle-class mothers in Korea and Canada, Choi found that Korean mothers and their children manifest a communicative pattern that is relationally attuned to one another in a "fused" state (Choi, 1992), "where the mothers freely enter their children's reality and speak for them, merging themselves with the children" (Kagitçibasi, 1996, p. 69). Canadian mothers, in contrast, "withdraw themselves from the children's reality, so that the child's reality can remain autonomous" (Choi, 1992, pp. 119-120).

Development of Comprehension Versus Self-expression.

Authoritarian parenting, characteristic of socialization for interdependence, brings with it an associated style of parent-to-child communication: frequent use of directives and imperatives, with encouragement of obedience and respect (Greenfield, Brazelton, & Childs, 1989; Harkness, 1988; Kagitçibasi, 1996). This style is used where the primary goal of child communication development is comprehension rather than speaking (e.g., Harkness & Super, 1982). An important aspect of the imperative style is the fact that it elicits action, rather than verbalization from the child. This style is found in cultures such as in Africa (Harkness & Super, 1982) and in Mexico (Tapia Uribe, LeVine, & LeVine, 1994), as well as in Latino populations in the United States (Delgado-Gaitan, 1994).

The comprehension skill developed by an imperative style is particularly functional in agrarian societies in which the obedient learning of chores and household skills is a very important socializing experience (e.g., Childs & Greenfield, 1980), with the ultimate goal of developing obedient, respectful, and socially responsible children (Harkness & Super, 1982; Kagitçibasi, 1996; Keller, 2003; LeVine et al., 1994). This style of interaction is also useful for apprenticeship learning of manual skills, but it is not so functional for school where verbal expression is much more important than nonverbal action.

On the other hand, more democratic parenting brings with it a communication style in which self-expression and autonomy are encouraged from the child. This parenting style often features a high rate of questions from the parent, particularly "test questions," in which the answer is already known to the parent (Duranti & Ochs, 1986), as well as parent-child negotiation (cf., Delgado-Gaitan, 1994). Child-initiated questions are also encouraged and accepted. This style is intrinsic to the process of formal education in which the teacher, paradigmatically, asks questions to which he/she already knows the answer and tests children on their verbal expression. An important aspect of the interrogative style is the fact that it elicits verbal-

ization from the child. Such verbal expression is an important part of becoming a formally educated person and is particularly functional and common in commercial and technological societies where academic achievement, autonomy, and creativity are important child development goals. This style is the cultural norm in the U.S., Canada, Australia, and Northern Europe.

Teaching and Learning: The Role of Reinforcement. In societies that put an emphasis on commands in parental communication, there also tends to be little praise used in parent-child communication (e.g., Childs & Greenfield, 1980; Whiting & Whiting, 1975-). Where schooling comes into play, praise and positive reinforcement take on importance. Duranti and Ochs (1986) make the following observation of Samoan children who go to school:

In their primary socialization [home], they learn not to expect praises and compliments for carrying out directed tasks. Children are expected to carry out these tasks for their elders and family. In their secondary socialization [school], they learn to expect recognition and positive assessments, given successful accomplishment of a task. In their primary socialization, Samoan children learn to consider tasks as co-operatively accomplished, as social products. In their secondary socialization, they learn to consider tasks as an individual's work and accomplishment (p. 229).

Thus, there is a connection between more individualistic child development goals and the use of praise and other positive reinforcers.

Correlatively, there is a connection between a tighter primary in-group and the absence of praise and compliments. Where role-appropriate behavior is expected rather than chosen, positive reinforcement does not make sense. Miller (1995) has described how people do not say "thank you" in India; once you are part of the group, you are completely accepted and expected to fulfill your social roles and obligations. Whiting and Whiting (1975) noted the lesser need for positive reinforcement where the intrinsic worth of the work is evident, as it is in household tasks and chores. On the other hand, pointing out weaknesses that need to be improved (i.e., criticism) can be more important in a collectivistic culture, where the goal is to bring everyone up to the group norm (Greenfield, Quiroz, & Raeff, 2000).

APPLYING THE TWO CULTURAL PATHWAYS OF DEVELOPMENT TO FORMAL EDUCATION: THE BRIDGING CULTURES PROJECT

Schooling and its implications for the development of a cultural identity (i.e., self) and competence have been and still are targets of controversial debate. On the one

hand, the acquisition of similar skills across cultures is being claimed as a necessary step for improving people's lives on a global scale (Kagitcibasi, 1996). On the other hand, indigenous methods and contents of schooling are strongly advocated as an alternative to the Western type of schooling to support the acquisition of locally adaptive knowledge (Nsamenang, 1992; Serpell, 1979). These discussions center on the role of culture in the process of knowledge acquisition in different cultures, including the culture of the school.

However, such discussions often leave out the multicultural reality that is a social fact in many immigrant societies, as well as in societies in which indigenous peoples have been subject to conquest by a colonial power. One major implication of this multicultural reality concerns the possibility of different cultural values among students, between students and teachers, and between home and school. Some recent educational theory and research has addressed the notion of bridging cultures of home and school by making the expectations of both explicit and supporting students to develop bicultural skills (cf., Delpit, 1995; Lipka, et al., 1998; Trumbull, Nelson-Barber, & Mitchell, 2003). It is from this perspective that the Bridging Cultures Project was conceived.

"Bridging Cultures" began with basic research documenting cross-cultural value conflict between Latino immigrant families and the schools. This research showed that immigrant parents were generally much more collectivistic in their orientation to child socialization than were their children's teachers (Greenfield, Quiroz, & Raeff, 2000; Raeff, Greenfield, & Quiroz, 2000). In the first study, Greenfield, Quiroz, and Raeff (2000) found that immigrant Latino parents of third- and fourth-grade students and their European American teacher were often in non-cooperative discourse. This means that most conversations between the parents and the teacher did *not* confirm or elaborate a common theme. Instead, there were whole categories of discordance related to (1) individual versus family accomplishment, (2) praise versus criticism, (3) cognitive versus social skills, and (4) oral expression versus respect for authority. Overall, this study demonstrated the tensions between home cultures and school cultural expectations.

In the second study (Raeff et al., 2000), fifth-grade children, their mothers, and their teachers were given home-school scenarios that varied along the pathways of individualism and collectivism. In one school, where the children and parents were predominantly European American, the scenarios were solved in consistent ways by children, their parents, and their teachers. This was not the case with a different school where the families were predominantly immigrant Latino. Scenario results revealed that the parents were more concerned about their children sharing and helping, whereas the teach-

ers generally had a greater orientation to task completion, individual choice, and personal property. The fifth-grade children were sometimes in between in their responses, demonstrating that they may have been pulled between the cultural values of their home and those of the school. For some scenarios, their responses looked more like those of their teachers than those of their parents. The school was being successful in its unwitting cultural socialization.

Based on these two studies we (Greenfield, Quiroz, Rothstein-Fisch, Trumbull, and seven elementary school teachers initially) then utilized this research to help teachers and schools understand home culture and school culture, in order to create educational "bridges" between them. Through the Bridging Cultures Project, we have been exploring with teachers the ways in which deep value orientations of cultures (including the mainstream U.S. culture) result in different expectations of children and of schooling. These orientations are less visible than the material and often superficial elements of a culture, such as the ways in which a culture celebrates holidays and heroes or creates works of art. Value orientations are more difficult to capture than the histories of groups, because cultural values are often invisible. Yet they form the basis for ways of viewing the world and vast ranges of behaviors including the way people communicate, discipline their children, and carry out everyday tasks. If schools are to succeed in promoting successful education for children and meaningful school involvement for parents, then educators need to understand how these cultural values orientations shape a whole host of beliefs, expectations, and behaviors—on the part of families on the one hand and of teachers and school personnel on the other.

We must emphasize that there are elements of both individualism and collectivism in any society and that cultures change, particularly when they come in contact with each other. As Goldenberg and Gallimore (1995) observed, "Both continuity and discontinuity across generations are part of the process of cultural evolution, a complex dynamic that contributes to change and variability within cultures" (p. 188). For example, parents' views about appropriate education for girls of the current generation of Mexican American families are different from *their own parents'* views on the same topic (Goldenberg & Gallimore, 1995). The new generation puts greater emphasis on individual educational development; the older generation put greater emphasis on family responsibility.

Intergenerational trends toward the host culture notwithstanding, there currently exists tremendous cross-cultural value conflict between Latino immigrant families and the schools. Most of these families have emigrated from rural Mexico, with a minority coming from urban

Mexico and Central America. They were generally poor in their homelands, with little opportunity for educational advancement. Hence, they are likely (as our studies show) to exhibit highly collectivistic values.

Cross-Cultural Contact and Conflict at School

Research shows the contrasting types of knowledge, intelligence, apprenticeship, and communication to be on a collision course in our multicultural schools. Whereas teachers focus on independent academic achievement, Latino parents, for example, are often more concerned about social behavior (Greenfield, Quiroz, & Raeff, 2000). These goals are crystallized in a different concept of education, *educación* (Reese, Balzano, Gallimore, & Goldenberg, 1995). This Spanish word is not an accurate translation of the English word "education." Unlike "education," *educación* refers to the inculcation of proper and respectful social behavior; like the Tzotzil *na*, *educación* refers to character. The connotation is that academic learning does not suffice to make a person "educated." As another example, the Native American concepts of learning by observing rather than participating and for the purpose of group rather than self (as discussed earlier) also lead to mismatches between Native children and the schools (Suina & Smolkin, 1994). In terms of communication, teachers complain that Latino students do not speak up in class and proffer their opinions. At home, however, to provide an opinion to an adult would be considered disrespectful (Delgado-Gaitan, 1994).

Ameliorating these mismatches is the foundation of the Bridging Cultures Project. Bridging Cultures began as a series of workshops for seven elementary school teachers serving Latino immigrant families in Southern California. We used our own ethnographic observations of cross-cultural value conflict in school to help make the Bridging Cultures teachers aware of the two value systems and where they might come into conflict at school. We begin with one such observation.

Example of an Individualism-Collectivism Conflict: Sharing or Personal Property?

The emphasis on social relationships rather than on the individual extends to notions of property: In collectivistic cultures, the boundaries of property ownership are more permeable. Personal items such as clothing, books, or toys are readily shared and often seen as family property rather than individual property. Through a study utilizing scenarios presented to children, parents, and the children's teachers, we found that Latino parents generally

value sharing as a child development goal, whereas their children's teachers place a greater value on personal property (Raeff et al., 2000). The following incident in school illustrates the institutional forces that make it difficult for teachers to harmonize their classroom practices with the home culture of collectivism:

The Crayons Incident (as told by the teacher)

A mentor teacher paid a visit to a kindergarten class, where she observed that the teacher had arranged the crayons by color in cups. There was a cup for the green crayons, a cup for the red crayons, and so on. Each cup of crayons was shared by the entire class. The mentor suggested to the kindergarten teacher that it would be much better if each child had his or her own cup of crayons with all the colors in it. She explained that it made children feel good to have their own property and that they needed to learn how to take care of their own property. Furthermore, those who took good care of their "property" would not have to suffer by using the "crappy" (her word) crayons of those children who did not know how to take care of their things. (Quiroz & Greenfield, 1996)

The crayons incident involves an underlying conflict between the values of sharing and personal property. The kindergarten teacher was an immigrant Latina parent herself, and her arrangement of the crayons was implicitly based on her collectivistic orientation. When she responded to the wishes of the supervising teacher by rearranging the crayons, the children, largely immigrant Latinos themselves, began to experience conflict between the sharing orientation that was familiar to them at home (and previously at school) and the new orientation to personal property. As told by the teacher, the children

did not care if their materials were misplaced, so their "personal" materials ended up having to be rearranged by the teacher every day. It was not that the children were incapable of arranging their materials in a systematic fashion because they had done so before. However, the category "personal material" simply was not important to them. (Quiroz & Greenfield, 1996, pp. 12-13)

The preceding example makes it very clear that values are in the head, not in the situation, and that they are used for the symbolic construction of social relations and social life, at school as at home. In terms of the external situation in this example, the crayons in actual fact belonged to the school. Through her actions and words, the teacher symbolically constructed them as belonging to the class as a whole, while the mentor symbolically constructed them as belonging to individual students. The mentor was clear that she wanted the children to learn a lesson about the importance of personal property; the teacher, implicitly, was communicating a message about the necessity to share. The teacher's message reflected

her own socialization in Mexico; the mentor's actualized the values of the school and the mainstream society. The children's behavior indicated that the teacher's approach was more meaningful to them, undoubtedly because it harmonized with their socialization at home.

Cooperation, Competition, and Schooling: Another Arena for Conflict Between Individualism and Collectivism

The ways teachers and students interact in the classroom reflect a relative emphasis on the needs of the group or of the individual. Competition is the natural companion of a focus on the individual, whereas cooperation is the natural companion of a focus on the group. Although "cooperative learning" has been widely promoted, sometimes on the grounds that it will ensure students' later success on the job, the norm of cooperation has clearly not over-ridden the norm of competition. Indeed, our analysis of "cooperative learning" in schools indicates that there are two basic modes of cooperation, one more individualistic, the other more collectivistic. The more individualistic mode is characterized by division of labor; the more collectivistic by people focusing together on a common task. A comparison of more schooled and less schooled Maya mothers, guiding their children in a puzzle task, showed that formal schooling promotes the individualistic mode of cooperation (Chavajay & Rogoff, 2002). Cooperative learning, as it is practiced in schools—although it may stress "positive interdependence" (Johnson & Johnson, 1994)—also involves division of labor as a central element (e.g., Cohen, 1986; Johnson & Johnson, 1994; Aronson, Stephan, Sikes, Blaney, & Snapp, 1978); it is therefore not necessarily a comfortable mode of learning for children who have been socialized to focus together simultaneously on a common task.

The conflict between the two norms is seen most clearly in settings such as Southern California, where immigrant Latinos are introduced to U.S. schooling, or Alaska, where students from indigenous cultures meet "mainstream" teaching. Yup'ik Eskimo teacher Vicki Dull explains the situation in the village where she taught:

In the Yup'ik culture, "group" is important. There is little, if any, competition among Yup'ik people. When the Western school system entered the picture, the unity of the group slowly shattered. Children were sent hundreds and often thousands of miles away to be schooled in boarding schools where they were forced to abandon their own language for the foreign English with its accompanying foreign ways. They learned the Western value of competition. They learned to be individuals, competing against each other, instead of a group working in unity . . . There are seldom, if any times when they were allowed to help each

other, which would have been construed as "cheating." (Dull, in Nelson-Barber & Dull, 1998, p. 95)

It is difficult for educators used to U.S. "mainstream" norms to comprehend how drastic a shift this represents for students from a collectivistic culture.

Cross-Cultural Conflict in What Counts as Knowledge and Thinking at Home and at School

Cultural models not only have values attached to them—what counts as good and bad, what takes priority over what—but they also have epistemologies: what counts as knowledge. These cultural models are so basic as to normally remain implicit. So long as everyone interacting in the same social world shares the same model, the implicit quality of the models does not cause a problem. In fact, it provides an underlying set of shared assumptions that makes social life—for example, life in school—run smoothly. This next example is about what happens in a bicultural classroom when teachers and learners have different implicit understandings of what counts as knowledge.

In a pre-kindergarten class consisting of children from Latino immigrant homes, the teacher held an actual chicken egg. She asked the children to describe eggs by thinking about the times they had cooked and eaten eggs. One of the children tried three times to talk about how she cooked eggs with her grandmother, but the teacher disregarded these comments in favor of a child who explained how eggs are white and yellow when they are cracked. (Greenfield, Raeff, & Quiroz, 1996)

The two features of this incident—the first child's emphasis on a family-based story and the teacher's disregard and devaluation of the child's seemingly unscientific answer—occur frequently in classrooms with immigrant Latino students. But what is really happening here?

Our theoretical analysis rests on the following two points: What counts as knowledge for the teacher is knowledge about the physical world apart from the social world. It is the teacher's definition of scientific knowledge, and, in her mind, this is a science lesson. Her focus is on one part of her instructions, "Describe eggs." The child, in contrast, is responding more to the other part of the teacher's instructions—"Think about the times you have cooked and eaten eggs"—and, based on a different set of assumptions about what counts as knowledge, focuses on the social aspect of her experience with eggs, in particular, a family experience. This is the first aspect of the misunderstanding and cultural mismatch between teacher and learner.

The second aspect of the mismatch is that the child who was passed over is providing a narrative, also valued

in her home culture, while the teacher is expecting a simple statement of fact. Implicitly, the teacher is making Bruner's distinction between narrative thought and logical-scientific thought. Bruner's analysis is very relevant here:

There appear to be two broad ways in which human beings organize and manage their knowledge of the world, indeed structure even their immediate experience: one seems more specialized for treating of physical "things," the other for treating people and their plights. These are conventionally known as *logical-scientific* thinking and *narrative* thinking (Bruner, 1996, p. 39).

The child who talks about cooking and eating eggs with her grandmother is responding in the narrative mode. But the teacher expects the logical-scientific mode: "What are the bare facts about eggs?" she wants to know. Narrative is, in the mainstream culture, associated with the humanities; logical-scientific thought is associated with the sciences. As Bruner says, the value of logical-scientific thinking "is so implicit in our highly technological culture that its inclusion in school curricula is taken for granted" (Bruner, 1996, p. 41). It is so taken for granted that the narrative mode, as the egg incident shows, becomes invisible to the teacher.

Impact of Home-School Value Conflict

Here and elsewhere we have presented examples of how these two different value orientations often collide as children from immigrant families move from home culture into U.S. schools (Greenfield & Cocking, 1994; Greenfield et al., 1998; Raeff et al., 2000). These children may be torn between the values and expectations of their native culture and those of the "mainstream." Parents and teachers (the latter representing mainstream culture) may observe the same behaviors in children but interpret them differently, because they are viewing them through very different cultural lenses. When the individualistic teacher says the child is "able to work well independently," the collectivistic parent may hear the teacher as saying the child is "too separated from the group." When the collectivistic parent asks more than once about his or her child's social development, the individualistic teacher may hear the parent as saying, "I don't really care whether she does well academically in school."

From Theory to Practice: Guiding Teachers to Bridge Cultures

To determine if knowledge of the cultural value systems of individualism and collectivism could affect teaching and

learning, we began the Bridging Cultures Project with professional development workshops for seven elementary teachers from bilingual Spanish-English classrooms in southern California. The grade level of their classes ranged from kindergarten through fifth grade. Four teachers were Latino; three were European American. Three of the four Latino teachers were immigrants to the United States (two from Mexico, one from Peru); one of the European American teachers was an immigrant (from Germany). All of the immigrant teachers had come to the United States when they were young (between 2 and 8 years of age).

These seven teachers participated in a series of three half-day workshops. In the first workshop, Greenfield and Quiroz presented the theory of individualism and collectivism, as well as the results of our research on cross-cultural value conflict between Latino immigrant families and the schools (Raeff et al., 2000).

The format was quite participatory; so, for example, we asked the teachers how they would solve certain individualism-collectivism dilemmas before showing them what our research had revealed about how Latino immigrant parents and their children's teachers resolved the same dilemmas (Raeff et al., 2000). These scenarios were also used as a pretest of teachers' beliefs. The teachers responded in a strongly individualistic manner (86 percent of the response were individualistic) despite the majority of Latino teachers in our group (Rothstein-Fisch, Trumbull, Quiroz, & Greenfield, 1997). In debriefing the scenarios, the teachers were noticeably surprised to find out that the Latino parents favored a different (i.e., collectivistic) way to resolve dilemmas that the teachers had generally solved in an individualistic mode. (In this way, we found out that the schooling process, particularly teacher training, wiped out, at least on the surface, the collectivistic values with which our Latino teachers, as they later told us, had been raised.) Starting in Workshop 1 and continuing throughout the workshops, we presented examples of cross-cultural conflict between individualism and collectivism in the schools, such as the "crayons" and "eggs" incidents described earlier.

At the end of the first workshop, we asked the teachers to observe in their schools and to bring back to the second workshop an example of conflict between individualism and collectivism that they had noticed. During the second workshop, they shared their examples, and we refined understanding of the two value systems through discussion. At the end of the second workshop, we asked the teachers to try to make one change before the next workshop that would reduce a conflict between individualism and collectivism in their classroom or school and to observe its impact. In the third workshop, they reported on what they had done and how it had worked. We discussed their

interventions, and this was the beginning of a process by which teachers used the individualism-collectivism paradigm to generate new practices and learn from each others' innovations. Researchers could also record these innovations to present as important "results" of the training, for purposes of broader dissemination to the educational community.

At the end of Workshop 3, the teachers took a posttest. Again, scenarios were drawn from those used by Raeff, Greenfield, and Quiroz (2000). The posttest revealed that teachers had dramatically shifted their orientation to resolving a matched set of social dilemmas (57 percent collectivistic, 21 percent individualistic, and 21 percent both individualistic and collectivistic) (Rothstein-Fisch et al., 1997). There were now many more collectivistic solutions. However, even more important to the concept of a bridge between two cultures, the teachers' solutions were now very well distributed among both value systems.

At this point, the teachers initiated the idea and unanimously agreed that it would be worthwhile to continue to meet to explore further applications of the theory in their own classrooms and schools. We held a fourth, debriefing workshop and then arranged to keep meeting several times a year. At these meetings, teachers reported their latest Bridging Cultures innovations, researchers reported ongoing research and publications, and teacher-researcher teams practiced for upcoming outreach presentations. The meetings continued for 5 years. Workshops and meetings always included food and drink and an opportunity for socializing. These elements were extremely important to group motivation, as they made the teachers feel valued, something they told us was often lacking in their schools. The group turned into a collaborative support team, as the line between teacher and researcher became increasingly blurred.

Teachers as Researchers

A key feature of the Bridging Cultures Project is the role teachers have taken. The seven participating teachers in our original Bridging Cultures workshop are themselves acting as researchers in their own classrooms and contributing both to a deeper understanding of the theoretical framework and to the collection of examples of school-based experiences and practices that bring the framework alive. These teachers are truly "teacher-researchers" because they experiment with new ways of bridging cultures, and they report the results for others to learn from. We refer to the non-teacher researchers as "staff researchers." One of the teacher-researchers (Catherine Daley) and one of the staff researchers (Patricia Greenfield)

subsequently engaged in a formal study applying the Bridging Cultures training to parent education. We believe that teacher research is an important and unique source of knowledge about teaching and that artificial boundaries between the practice of teaching and research on teaching need to be challenged. Much can be gained from collaborations between educational psychologists and classroom teachers.

In our meetings, we discussed ways to improve home-school relationships and children's education that are based on the experimentation of the teacher-researchers in their own classrooms. This experimentation is then disseminated to the broader educational community through publications and professional workshops (Quiroz, Greenfield, & Altchech, 1998, 1999; Rothstein-Fisch, Greenfield, & Trumbull, 1999; Rothstein-Fisch & Trumbull, 2005; Rothstein-Fisch, Trumbull, Isaac, Daley, & Pérez, 2001; Trumbull, Diaz-Meza, Hasan, & Rothstein-Fisch, 2001; Trumbull, Rothstein-Fisch, & Hernandez, 2003; Trumbull, Rothstein-Fisch, Greenfield, & Quiroz, 2001). Teachers are important partners in the dissemination process. They have disseminated locally, in their schools and at the district level, regionally, and nationally, as have the staff researchers. Often we give joint presentations, including one or more teacher-researchers and one or more staff researchers.

Another aspect of teacher research that was part of the Bridging Cultures professional development process was the use of *ethnography*, a technique from anthropology that is often defined as participant observation. We encouraged teachers to get to know their individual parents and to learn more about their backgrounds—Where were they from? How old were they when they immigrated to the United States? In what country did they go to school? The last question was a good one to elicit amount of schooling in a nonthreatening manner. Parental schooling is important information for teachers to have in the population served by the Bridging Cultures teachers. Most parents of their students had had no opportunity to go beyond sixth grade in Mexico or Central America, and limited formal education then became a barrier to helping children with homework and academic skill development, a barrier that teachers needed to understand and adapt to. Ethnography was important for teachers in order to adapt to individual family differences as a function of acculturation level, economic level, educational level, and so forth. Ethnography was also important as a way to get to know about the whole family in a culture where the child is seen primarily as a family member rather than an independent individual. Whereas individualism-collectivism paradigm provided a framework by which to understand particular ethnographic details, the ethnographic approach

to families prevented overgeneralization and inaccurate stereotypes.

Teachers Use the Theory to Generate New Practices

Indeed, the teachers' experimentation in their own classrooms and schools has proven the framework more generative than we ever dreamed possible. There has been no end to the applications teachers have identified and innovations they have developed. Teachers can apply the framework in ways that make sense in their classrooms and schools and which they are comfortable with. Not all innovations are of equal value or success. They need to be evaluated in light of the framework and research, as well as tested by teachers, to see how they work and what outcomes they drive. There is no recommended mix of individualism and collectivism in the classroom, although most of the innovations have, quite naturally, been in the direction of making uniformly individualistic classrooms more collectivistic. However, it is equally important to note that the teachers, in our very first workshop, decided that the basic notion is to provide a bridge from home culture to the school culture, so that students can meet the demands of mainstream schooling, which will not adapt to their home culture as they continue in school.

It is important to note that our method is nonprescriptive. We provide the paradigm; the teachers use the paradigm to generate their own innovations, which vary greatly from teacher to teacher. Here are a few examples:

In the area of home-school relations, examples include transforming parent-teacher conferences, with their traditional focus on one individual child, into a group format where the teacher meets with parents of several children (Quiroz, Greenfield, & Altchech, 1998). In the area of classroom management, helping tasks (such as cleaning the blackboard) stopped being restricted to one assigned child; children were allowed to help freely and to work together on a wide variety of classroom tasks (Greenfield, in press; Rothstein-Fisch, Trumbull, & Greenfield, in press). In the area of instruction, children were encouraged to help each other in preparing for standardized tests (while the bottom line of individual assessment was also made clear!) (Rothstein-Fisch et al., 2003). In language arts, teachers designed writing prompts and selected literature based on students' interest in the topic of "family"; they also supported students' forms of discourse that integrated academic topics with social topics (such as experiences with family) (Rothstein-Fisch, Trumbull, & Greenfield, in press).

Reason for Optimism

The outcomes of the Bridging Cultures Project are causes for optimism. Some of the most striking effects have to do with (1) the perspective teachers have gained on their own culture, their students' home culture, and school culture, (2) the degree to which this has begun to influence their thinking and their practice in ways that reduce conflicts between home and school culture, and (3) the increased confidence teachers have in their own abilities to build the kinds of relationships with families that will support student success in school and family unity at home. They know how to learn from their students' families, and they have new ways of understanding what parents are sharing with them. What they have learned will stand them in good stead whenever they encounter students from other collectivistic cultures, although the specifics may be different. We believe the project has been successful for the following reasons:

- It uses a theory- and research-based framework to guide experimentation with new educational methods.
- It offers teachers opportunities to share and analyze practice over an extended period of time, valuing their knowledge and experience.
- It allows for experimentation and has been applied to all aspects of teachers' work including staff development, classroom management, subject matter instruction, assessment, and parent-school relations.
- It has a committed group of teacher-researchers and staff researchers.
- It is not prescriptive but offers a generative framework.
- It includes meetings that incorporate both rigorous intellectual work and enjoyable interpersonal activities such as sharing meals, humor, and personal celebrations.

In the final analysis, teachers recognize that neither value system is all good or all bad. One teacher said, "I think that it is a good point to bring out about culture . . . that . . . we're not saying collectivism is right and individualism is wrong. We're just saying to recognize it. It's different."

CONCLUSIONS

A strong cultural theory of learning and development places culture at the center rather than the periphery. Culture is not simply a context for development; instead it is inside the individual, an essential component of learning, socialization, and development (Greenfield, Keller, Fuligni, & Maynard, 2003). Each cultural pathway addresses universal developmental issues. Many of these

issues—for example, learning, teaching, intelligence, creativity, and knowledge—are centrally relevant to educational psychology. But each pathway addresses the issues with a different emphasis. The pathway toward independence, individuation, and innovation provides one set of developmental priorities; the pathway toward interdependence, group membership, and respect for community tradition provides another set.

Schooling intrinsically values the independent individual. In school, to help or be helped by another, especially on a test, is to commit the act of cheating (Cizek, 1999; Whiting & Whiting, 1994; Rothstein-Fisch et al., 2001). Most likely the general cultural emphasis on individualism in the United States (e.g., Hofstede, 2001) further strengthens the value schools place on the independent individual, relative to schools in some other countries.

However, it is important to realize that this individualistic value system is not part of the home culture for many, many students from immigrant or native cultures. This may also be the case, albeit to a lesser extent, in nonminority working-class homes (Lucariello, Durand, & Yarnell, 2005; Snibbe & Markus, 2005); collectivism, particularly in the form of sharing and helping, is a natural adaptation to lesser economic means. The difference between a more collectivistic home culture and a more individualistic school culture sets the stage for values conflict, with children being exposed to one set of values at home, another at school.

Although we have, in this chapter, presented examples from the elementary school years, parallel conflicts occur from early childhood through the university. At the preschool level, for example, a toddler may be hand or spoon fed by others at home (value placed on parental helpfulness and parent-child closeness), while being encouraged to self-feed in day care (value placed on child independence) (Zepeda, Gonzalez-Mena, Rothstein-Fisch, & Trumbull, in press). At the other end of the educational spectrum, when a college student is absent from a test to fulfill his/her family's request to help care for a sick relative, a common reaction on the part of the professor is that he or she is slacking from school responsibilities; it would be rare to hear the student praised for providing help at home. As another example, we have noted that the most difficult part of graduate school for some Latino students from immigrant homes is the conflict between being present for family occasions such as baptisms and birthdays and being present to fulfill tasks in the academic environment.

Part of the answer to such dilemmas is to help parents and families understand the two cultures and the conflicting demands that divergent cultural priorities place on their children. We have begun to explore this route by holding Bridging Cultures workshops for Latino im-

migrant parents. This was a research project initiated by one of our Bridging Cultures teachers, Catherine Daley. Our findings are that such workshops help parents understand their children's desire for more independence than the parents have wanted and also make the parents better understand their children's teachers. This latter understanding was reflected in significantly greater parent visitations with their children's teachers, relative to a control group who received the school's "standard" parent training (Esau, Greenfield, & Daley, 2004).

We also know that similar conflicts and misunderstandings occur among peers in heterogeneous classrooms or school sports teams when some members of a peer group bring a collectivistic cultural orientation and others bring a more individualistic orientation into the group situation (Greenfield & Suzuki, 1998; Greenfield, Davis, Suzuki, & Boutakidis, 2002). We have developed a Bridging-Cultures-style intervention for multiethnic high school sports teams, with some limited success (Kernan & Greenfield, in press). However, to our knowledge, no research has been done on the role of cross-cultural value conflict in peer relations in culturally diverse elementary schools. This is an area ripe for future research.

One topic that we have not touched in our research or in this chapter is whether and how teachers can adapt the Bridging Cultures approach to classrooms and schools that are ethnically heterogeneous, rather than homogeneous. Our methods were developed for a situation in which the classroom population is an immigrant population from a single ethnic group with a collectivistic heritage culture. What can and should teachers do in schools and classrooms in which students come from various ethnocultural backgrounds? There are two such situations.

In one, children will be from various immigrant backgrounds, all of which share a collectivistic value system. In this situation, we believe that the Bridging Cultures approach can be used with minimal adaptation. In the second situation, children from individualistic mainstream cultural backgrounds are mixed in with children from collectivistic cultural backgrounds. Here more adaptation will surely be necessary, and research is very much needed. However, we would guess that a framework for understanding the nature of cultural differences within a classroom would have to be very helpful to a teacher and to her students. Such a framework might affect how the teacher dealt with cross-cultural misunderstandings among children coming from different cultural backgrounds. It might also affect how well the teacher understood differing concerns of parents from different cultural backgrounds. How to translate an understanding of culturally diverse value systems in a single school or classroom is an important topic for future research in educational psychology.

By using the paradigm presented in this chapter to animate their research, educational psychologists could play a major role in helping school personnel to negotiate difficult cultural waters by equipping them with detailed research-based knowledge of the two pathways and their manifestation in a multicultural school situation. Cross-cultural value conflicts can take place both externally and internally. Little is known about how they make school at every level difficult for those who experience them. It seems clear, however, that the more such cross-cultural value conflicts are understood by educational researchers and educators at all levels, the less these conflicts will interfere with processes of education and development.

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*Note: Blanca Quirtz is currently an Asst. Professor in the College of Education and Human Development at Texas A&M University. This work was conducted while she was at UCLA.

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