

CHAPTER 2

*Children and the
Principles of Learning**Implications for Multicultural Development*

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Multiculturalism has received a great deal of attention over the past 15 to 20 years. Many have advocated that true inclusion and multiculturalism cannot occur if the traditions, perspectives, and voices of nonmainstream and/or non-Western communities are not heard, appreciated, or incorporated within mainstream society's value system. Although a general consensus among social scientists exists that globalization requires a more authentic valuing and understanding of diverse perspectives, very little attention has been paid to the mechanisms by which a multicultural perspective is developed.

With the progressive trends in globalization, it is crucial that our nation's youth be able to fully interact with individuals from diverse backgrounds. Multiculturalism facilitates this process. Development of a multicultural perspective, hence, is the mechanism by which an acknowledgement of diversity is transformed into an ideological process that fully extends substantive inclusion of multiple cultural perspectives into a

society. This chapter explores the cultural basis of knowledge acquisition and introduces a model to explain the process by which a multicultural worldview can be developed. The current chapter will consequently survey developmental factors (i.e., biological, psychological, and environmental) that facilitate childhood knowledge acquisition.

**A DEVELOPMENTAL
PERSPECTIVE OF LEARNING**

Development is a process by which systematic changes occur within an individual over the course of the life cycle. The developmental process is additionally marked by characteristics (e.g., biological sex, some physical features, preferences) that remain constant across the lifespan. Although learning and development share a number of common underlying mechanisms, they are not the same. Learning promotes development and refers to changes in behavior that simultaneously

result from experiences and practices (Rogoff, 1990). Exploring learning and knowledge acquisition from a developmental perspective requires a purposeful incorporation of both individual and contextual factors. This is highlighted because it is nearly impossible to divorce human development as well as the process of learning from the social, historical, and cultural contexts in which they occur (Bailey & Pransky, 2005; Wertsch, 1991). Weisner (2002) explains that cultural communities create developmental pathways that are shaped by community-specific learning opportunities that are provided through daily routines and activities. Weisner adds that it is through daily routines and cultural activities that children learn community values and goals that ultimately influence interactional styles, attachment patterns, conceptions of self, gender roles, and modes of relating to the larger environment.

Human learning occurs as the result of the interplay among biological maturation, psychological processes, and environmental context (Keller & Greenfield, 2000). Although many theoretical conceptualizations contribute to our understanding of human development and learning, the sociohistorical tradition founded by Vygotsky (1968/1988) comprehensively addresses the multi-influenced nature of cognitive development and provides a substantive foundation on which to base an exploration of childhood learning and worldview development. According to the sociohistorical perspective, "social, historical, and cultural circumstances help shape a person's view of the world and give rise to the ways of functioning within that world" (Sanchez, 1999, p. 352).

One of the primary strengths of the sociohistorical approach is that it incorporates environmental factors such as historical influence, cultural context, and social interaction in its conceptualization of cognitive

development. This perspective holistically reflects the reality in which learning and development occur. Viewing children's actions as embedded in social context, cognitive growth is conceptualized as being constructed through cultural practices and is regarded as a social activity (Gauvain, 2005; Greenfield, Maynard, & Childs, 2000). The emphasis within the sociohistorical conceptualization of development resides in the social constructive nature of learning and cognitive development. Within this conceptualization, historical processes function to impact and direct cultural activities, making cognitive development a situation-specific endeavor. Because learning is embedded within environmental context, it is facilitated through apprenticeship or guided participation in social experience and represents a transformation of one's role and involvement in cultural activities and cultural creation (Rogoff, 1990; Rogoff, Paradise, Arauz, Correa-Chávez, & Angelillo, 2003; Tomasello, Carpenter, Call, Behne, & Moll, 2005).

Principles of Learning

Within the sociohistorical approach, a distinction is made between higher and lower mental functions. Lower, or elementary, mental functions are conceptualized as natural mental abilities that are involuntary and genetically inherited (Wertsch, 1991). Lower mental functions relate to primary biological functions that form a foundation for higher mental functions. Higher mental functions, conversely, facilitate the development of complex intellectual activities (e.g., voluntary attention, logical memory, concept formation) and incorporate the use of symbols (i.e., cultural tools) (Wertsch, 1991). Higher mental functions develop through social interaction and are socially and/or culturally mediated. Higher mental functions, then, are conceptualized to consist

“of a variety of cognitive skills, each independently acquired in socially organized activities, forever tied to the contexts in which they develop” (Guberman & Greenfield, 1991, p. 240). Thus, learning serves as the mechanism by which cognitive processes move from the level of lower mental functioning to higher mental abilities.

Learning transpires through a variety of modalities (e.g., visual, auditory, kinesthetic, mixed) and follows irregular paths. Research suggests certain forms of learning occur via the same pathway regardless of age (e.g., Chen & Siegler, 2000; Kuhn, Garcia-Mila, Zohar, & Andersen, 1995; Siegler & Chen, 1998), whereas other styles of learning arise from multiple pathways that change over time (Spencer, Vereijken, Diedrich, & Thelen, 2000). The process of learning involves progress, inconsistent patterns of generalization, regressions, and momentary transitional approaches, as well as qualitative and quantitative changes (Amso & Casey, 2006; Schauble, 1996; Siegler, 2005). Learning is dependent on prior knowledge and appears to be most productive when the constraints of tasks are clearly known and when learners are encouraged to seek causal understanding of phenomena (Hausfather, 1996; Siegler, 2005).

Learning strategies allow children to encode, recall, and process information. The strategies used by children vary with age and experience. Research suggests that children not only use both active and passive learning strategies to solve novel problems, but they contemplate and adjust their strategies based on previous experiences, reflection, or the environmental feedback they receive, whether the feedback is provided by a mentor or from the success or failure of solving the task itself (Shrager & Siegler, 1998; Siegler, 2005; Siegler & Araya, 2005). The learning endeavor is impacted by factors that are both internal and external to the learner.

Rogoff (1995) suggests that development occurs on three planes: personal, interpersonal, and institutional. The personal plane involves both biological and psychological processes that influence learning and development. The interpersonal plane includes the tools used by cultures (e.g., communication patterns and interaction modes/assumptions) to set the rules of engagement for interpersonal interactions with family members, peers, teachers, and community members. The institutional plane is composed of the larger societal factors that provide a context for the individual (e.g., societal rules, nationalistic identities, shared history, societal customs and beliefs). A discussion of learning and development cannot be regarded as comprehensive if the contributions provided by each of these planes of existence are not considered (Rueda, Gallego, & Moll, 2000). Consequently, personal, interpersonal, and institutional contributions to learning and development will now be evaluated in light of their contribution to worldview development.

THE PERSONAL PLANE: BIOLOGICAL FOUNDATIONS OF LEARNING

Infants enter the world biologically prepared to learn (Carey & Gelman, 1991). Tomasello, Carpenter, Call, Behne, and Moll (2005) suggest that humans are the only species biologically adapted to create shared goals and participate in coordinated action plans. These species-specific accomplishments could not occur if it were not for the motivation humans possess to interact with others (Tomasello et al., 2005). This motivation serves an evolutionary function to help maintain infant life through contact with caregivers. In fact, from their time of birth, infants are equipped with an inherent inclination for relating to others. Because voices (DeCasper

& Fifer, 1980) and faces (Keller & Greenfield, 2000; Nelson, 2001) are among the first stimuli to capture a newborn's attention, caregivers begin introducing their offspring to the world by capitalizing on these modes of interest. The biologically based proclivity to interact with others not only increases the probability for infant survival but also forms one of the many biological building blocks of learning. Biological building blocks of learning consist of inherited genetic instructions, biologically programmed processes, and inherent preferences that, inevitably, when contextually influenced, promote learning and cognitive development.

Biological Building Blocks

Biological processes, at a basic level, provide the foundation upon which lower mental functions (i.e., rudimentary cognitive processes) operate. The ability to learn, maintain cognitive control, and engage in goal-directed behavior is a function of neural processes that lie at the center of brain development (Brown, Zoccoli, & Leahy, 2005; Thomas et al., 2004). Impressive advances observed in cognition (e.g., sensation, schema creation, perceptual development, coordination of memory processes) and in the control of actions (e.g., visual tracking, motor skill development) throughout childhood occur as a result of the formation of neural pathways (Sigelman & Rider, 2006). Neural pathways provide the means by which the processing, incorporation, and reliance on sensory information facilitate learning and cognitive development. Neural pathways are strengthened by repeated use. Cortical changes as a result of neural development appear to be associated with learning (Amso, Davidson, Johnson, Glover, & Casey, 2005; Epstein, 1980). Thus, changes in brain organization correspond to the refinement of specialized brain regions and enhancement of memory structures and processes, as well as programmed

neuronal anatomical modifications (Kagan, 2003). Amso and Casey (2006) explain that "development and learning correspond to a fine-tuning of neural systems with enhanced recruitment of task-relevant regions and suppression of less task-relevant regions" (p. 28).

The sights, sounds, smells, tastes, tactile sensations, and kinesthetic experiences to which infants are exposed shape the formation of unique neural pathways (Amso & Casey, 2006). Whether the sensory experiences are provided by caregivers or individually sought out by infants, processing of sensory information is facilitated through neural pathways that link sensory input with memory structures. As a result of the associations made between sensory input and memory structures, the brain facilitates a process by which cognitive representations of events, called schemata, are created (Kagan, 2003). Schemata are organizational structures that allow for the categorization of information. Perception is a cognitive process highly reliant upon context that involves the selection, organization, and interpretation of perceptual schemata (Kagan, 2003; Mandler, 2004; Sigelman & Rider, 2006). Advances in working memory and retrieval strategies provide the apparatus on which basic perception relies. It is through perception that meaningful objects and events are recognized.

With the array of the sources of information provided through sensory, motor, and perceptual experiences, infants use schemata to construct categories to assist them in learning and interpreting their world (Mandler, 2004; Newman & Newman, 2006). It has long been argued that infants develop categories on multiple levels and that the process of developing categories occurs throughout infancy. Perceptual categories represent a basic cognitive ability that assesses perceptual similarity. According to Mandler, perceptual categories are formed through procedural learning and allow infants to recognize and identify objects.

Procedural learning relies on the acquisition of rules, is automatic, and is not under the conscious awareness of the learner (Thomas et al., 2004). This form of learning is promoted through extended practice and exposure. Mandler highlights that, like procedural learning upon which they are based, perceptual categories are created outside of the control and awareness of infants.

Conceptual categories, on the other hand, evaluate class membership, distinguish kinds, and tend to develop more slowly than perceptual categories as they are informed by experience and cognitive maturation. Conceptual categories allow for the recall of information as well as “making inductive generalizations” (Mandler, 2004, p. 22). Mandler proposes that conceptual categories are created through the use of declarative learning. The intentional nature of declarative learning requires a more sophisticated level of cognitive processing than does procedural learning. Declarative learning occurs rapidly and involves the acquisition of factual knowledge. Early in infancy, conceptual categories appear to contain fewer details than perceptual categories.

The psychological tools and culturally mediated frames of reference available to infants significantly influence the perceptual and conceptual categories initially created. These categories, refined through experience, physical development, and cognitive advances, become more sophisticated with age. In a series of studies conducted in the 1960s, Segall, Campbell, and Herskovits (1966), while evaluating culturally distinct influences of illusions, demonstrated that cultural differences in visual perception were a function of the availability and familiarity of specific environmental experiences. In a review of research conducted to evaluate perceptual preferences in African American and Indian American children, Shade (1989) found that the cultural frame in which perceptual experiences occur impact higher-order

cognitive processes and influence the types of learning strategies children select as well as the amount of cognitive engagement (i.e., mental effort) they dedicate to solving problems. Shade’s research suggests that the biological mechanisms that underlie higher cognitive processes such as joint attention, language development, concept formation, and theory of mind do not operate outside of the influence of cultural context. In fact, the meanings infants and children ascribe to perceptual and conceptual categories are created, shaped, and refined through everyday experiences with caregivers.

THE PERSONAL PLANE: PSYCHOLOGICAL FOUNDATIONS OF LEARNING

Although the learning endeavor would be insurmountable were it not for the foundation provided by biological development, complex thinking and learning activities would not occur without higher-order psychological processes. Biological and psychological processes are complementary (Kagan, 2003) and provide learners with the means to engage in worldview development. Psychological processes rely and build upon the foundation provided by biological building blocks to promote the development of higher mental abilities. This next section will highlight a few of the psychological processes that serve to provide support for learning across childhood.

Attention

The ability to selectively focus provides a foundation for learning experiences as it facilitates the encoding of information into memory systems. Attending to sensory stimuli provides the mechanism by which basic perception occurs. At advanced levels, attention provides the means to support the learning needed to function within one’s

larger society. Sustained attention facilitates the ability to persist on tasks and ultimately leads to advances in the strategies used to increase the efficiency of memory and learning processes. Through sustained attention, nuances about the environment, interactions with others, and knowledge about self are more readily understood. Attention processes, like all other cognitive processes, are shaped by evolutionary, environmental, and cultural factors. The learning opportunities available to members of a given society affect how attention and learning develop, as what is attended to inevitably shapes one's conception of reality.

Joint attention has been heralded as the cornerstone of psychological development because of the role it plays in facilitating the social cognitive development of infants and children (Mundy & Acra, 2006). Infants become social beings through joint attention, as it contributes to the development of an understanding of "others as intentional beings" (Goswami, 2006, p. 545). It is through joint attention and social engagement that infants gain access to the available cultural tools that shape not only learning opportunities but also cognitive development (Goswami, 2006). Joint attention integrates the use of objects with social exchanges. It involves coordinating attention with social partners (Mundy, Card, & Fox, 2000). Social partners, in collaboration with infants, shape, follow, and direct attention to promote learning opportunities.

Joint attention plays a crucial role in learning through pretend play with partners (Tomasello, 1995). Young children have been noted to make tremendous advances in pretend play when the play occurs with social partners when compared to solitary pretend play. Joint attention skills also contribute significantly to language acquisition and development (Baldwin, 1993; Mundy & Gomes, 1998; Paterson, Heim, Friedman, Choudhury, & Benasich, 2006). The social exchanges

facilitated through joint attention help infants understand the nuances of spoken language, experiment with communication modalities, and gain exposure to concepts that were previously outside of awareness.

Language

In interactions with others, language serves as a bridge between knowledge and understanding. Words create the base upon which experiences are not only defined but shaped. While most infants become effective communicators, a number of psychological and biological processes are at work to support language production, comprehension, and utilization (Sirois, Buckingham, & Shultz, 2000). For example, language relies on the coordination of linguistic, cognitive, and social skills (Im-Bolter, Johnson, & Pascual-Leone, 2006). Attention, visual, and auditory processing, as well as memory resources, also influence the effective use of language (Im-Bolter et al., 2006). Language is not developed in isolation, for it is through context that children learn how to use words and determine "the role that mental terms play in various circumstances" (Astington & Peskin, 2004, p. 65). Ultimately, language provides a powerful medium that promotes higher mental abilities. Language affords the means by which self-awareness moves from a sensory level to a cognitive level.

Language is the primary psychological tool that mediates thoughts, feelings, behavior, and cognitive development (Wertsch, 1991). Even advanced categorization schemes emerge through the use of language. Although language is initially used as a means of communication, over time its internalization becomes a means by which thinking and voluntary activity control occurs to promote cognitive advances such as concept formation. Astington and Peskin (2004) explain that "language both structures the concepts and provides the medium in which such structures can be

conveyed” (p. 67). It is through language that cultural values and abstract concepts are learned and become available for consideration (Hoffman, 1989; Nelson, 1996; Sellami, 2000). Culturally specific naming practices direct infant attention to salient details, processes, and categorization schemes to influence conceptual development (Mandler, 2004). Consequently, one’s concept of reality rests upon the perceptual, behavioral, and experiential framework provided by language.

Concept Formation

The ability to create meaning systems based on categorical associations among sensations, memories, ideas, and experiences develops throughout infancy and childhood. This ability is called *concept formation*. Concept formation, like categorization creation, requires the utilization of abstract rules and is dependent on both active engagement and environmental experience (Astington & Peskin, 2004). Conceptual formation enhances the learning endeavor by creating generalization strategies that increase the efficiency of problem solving, abstract reasoning, understanding of language, language utilization, and creativity. It is through concept formation that infants learn to form interpretations of what they experience as well as what they see others experience (Mandler, 2004).

Guberman and Greenfield (1991) suggest that concepts can be formed, expanded, or refined through a process called conceptual transfer, in which a concept from one area is applied and used to facilitate understanding in a new area. Conceptual transfer occurs laterally when an infant or child spontaneously and flexibly applies preexisting concepts to new areas with similar features. Conceptual transfer also occurs vertically when infants and children learn to apply preexisting concepts to new areas with assistance from a parent, teacher, or more

knowledgeable partner. Concept formation begins to develop quite early during infancy and contributes to an eventual appreciation for a number of mental states such as desire, belief, and intention.

Facility with abstract concepts such as mental states provides an avenue for great advances in cognitive development, interpersonal learning, and worldview development. Initially, experiential knowledge provides the basis on which rudimentary concepts are formed (Astington & Peskin, 2004). Rudimentary concepts not only provide a means by which awareness of one’s own feelings, intentions, and abilities is developed, but rudimentary concepts also provide infants with a capacity to begin to infer intentions and feelings to others (Kagan, 2003). With time, language and social interaction play pivotal roles in expanding rudimentary concepts to more sophisticated analogues.

Theory of Mind

Children gain insight into and speculate about the intentions of others by using information acquired through concept formation. Tomasello et al. (2005) suggest that discerning and generating hypotheses about the intentions of others is one of the most important skills children learn because it provides a means to interpret the actions of others. Coull, Leekam, and Bennett (2006) explain that the development of social interaction skills, emotional understanding, and communication rests on children’s ability to create theories about their own mental states as well as the mental states of others. This ability has been termed *theory of mind* (Premack & Woodruff, 1978). Theory of mind lies behind one’s ability to predict and/or explain the behaviors of others (Kail & Cavanaugh, 2000; Zahavi & Parnas, 2003). Theory of mind, accordingly, sets the stage for the view of human nature one ultimately develops.

While theory of mind appears to develop as a function of the learning opportunities provided by parents, family members, teachers, and more knowledgeable partners, it influences what is learned as well as the methods used to learn (Lucariello, 2004). Theory of mind, thus, contributes significantly to cognitive development as it provides a means by which cultural understandings of worldview are transmitted, interpreted, and advanced. Theory of mind provides a culturally imparted context to understand the behaviors of others. The degree to which one is able to engage in new and advanced modes of thinking lies in direct proportion to his or her conceptual understanding. The process by which theory of mind develops is largely influenced by the learning opportunities and conceptual supports provided within one's cultural frame of reference. Guberman and Greenfield (1991) highlight that cognitive processes and learning strategies do not occur outside the context of socioculturally influenced practices. That is, socialization practices transmitted through interpersonal relationships greatly influence the type and process by which theory of mind is developed.

THE INTERPERSONAL PLANE: CONTEXTUAL FOUNDATIONS OF LEARNING

"One reason that infants may develop psychological understanding relatively early in life is that their caretakers treat them as social partners" (Goswami, 2006, p. 545). In fact, infants and children are often expected to participate in cultural activities, understand cultural modes of communication, and adopt cultural mores well before the meanings and intentions of these activities are understood (Gauvain, 2005). Infants learn to express and read emotions through back-and-forth interactions with caregivers, a

process referred to as synchrony. Through synchrony, infants begin to develop the basic skills of social interaction and self-control, as well as symbolic play and language (Feldman & Greenbaum, 1997). The cultural values, roles, rules, and beliefs caregivers hold heavily influence their interactions and socialization practices with offspring (Barrera & Corso, 2002; Keller & Greenfield, 2000). Parental conceptions of obedience, cooperation, aggression, dependence, independence, and so forth, help to shape the social development, theory of mind, and cognitive processing displayed by their offspring. The organization of learning processes provided by caregivers flows from the cultural frame out of which they emerge (McKeon, 1994; Rogoff, 2003).

According to the sociohistorical perspective, a zone of proximal development exists for all humans at every skill level. The zone of proximal development is the range of ability, skills, or knowledge that are within the potential of a learner but are not yet mastered (Guberman & Greenfield, 1991). Mastery is obtained in the zone of proximal development through social interaction with willing mentors who teach more inexperienced group members how to use the psychological tools available to them. Psychological tools are the cultural artifacts that mediate a learner's thoughts, behaviors, and feelings and ultimately socialize one's progress through culturally specific developmental pathways (Greenfield, Keller, Fuligni, & Maynard, 2003). Examples of psychological tools include counting systems, mnemonic devices, maps, diagrams, art, writing, language, and learning strategies. Cognitive development transpires as a result of mastery and incorporation of psychological tools.

Mentors can take many forms (e.g., parents, teachers, siblings, peers) and always represent a more experienced learner or teacher who, during the mentoring process, continuously assesses and adjusts the task at

hand to a range that is within the less experienced learner's ability (Dasen, 2005). The mentoring process is frequently referred to as scaffolding. A mentor provides a scaffold by structuring participation in learning encounters for the purpose of fostering the development of a learner's emerging capabilities. "By solving the task under the guidance of more knowledgeable partners, learners restructure their task definition in accord with that provided by the tutor" and coconstruct, along with the mentor, the learning experience (Guberman & Greenfield, 1991, p. 250).

The psychological tools transmitted to children to promote cognitive development occur via formal and informal learning experiences. Formal educational experiences tend to be hierarchical and organized, and occur in structured educational settings such as schools. Formal learning experiences, in general, are compulsory and curriculum driven. The environments in which formal learning experiences occur tend to rely on the transmission of subject matter by an expert. Formal learning experiences contribute to cognitive development through purposeful transmission of psychological tools through lectures, activities, and exercises.

Informal learning experiences, on the other hand, occur within the context of everyday activities. Informal learning experiences are dynamic in nature and tend to rely on the active participation of learners. These activities may not be recognized as those that promote "learning" by the learner because the educational experiences tend to be facilitated in everyday modes of information transmission (e.g., communication with parents/relatives/peers, video games, television, computers, books, magazines, work groups). Informal educational experiences may occur unintentionally, as they are frequently not organized in a manner where information is presented in systematic ways (Fobih, 1986). Although informal learning experiences may occur within formal

classroom settings, they tend to arise out of the interests and activities of the learner that frequently are associated with the acquisition of the skills, knowledge, and psychological tools that make everyday life possible. Informal learning experiences have been found to substantially contribute to cognitive development. For example, in a sample of 57 fifth-, seventh-, and ninth-grade students, McClurg and Chaillé (1987) found that video games requiring the use of spatial skills improved student scores on a spatial ability measure regardless of grade level or sex.

Another powerful mode of informal education occurs through observing and listening-in on community undertakings with the ultimate goal of eventually collaborating by assisting in shared activities (Rogoff et al., 2003). This form of learning has been termed intent participation (Rogoff et al., 2003). It is through intent participation that children learn syntax rules, how to communicate (Akhtar, Jipson, & Callanan, 2001), the rules of games, and categorization schemes (Rogoff et al., 2003). In all, informal learning experiences frequently cannot occur without the assistance of others. That is, informal learning is most often facilitated through mentoring relationships that provide the means by which everyday skills, knowledge, and psychological tools are acquired within each child's zone of proximal development.

THE INSTITUTIONAL PLANE: SOCIETAL FOUNDATIONS OF LEARNING

Ethnicity, regional affiliation, and societal institutions (e.g., churches, schools, government, courts) provide powerful contexts for learning and worldview development. Each of these and the subcultures they possess mold parenting practices, formal educational goals and experiences, media experiences,

religious experiences, occupational opportunities, values, beliefs, and interactional patterns. All of these cultural communities help children understand themselves, themselves in relation to others, and themselves in relation to the larger society. Greenfield et al. (2003) highlight that the developmental pathways and learning opportunities available to children are constrained by the existing social structures that are subject to both economic and environmental conditions.

Formal education has been described as one of the major socializing agents for children. Bailey and Pransky (2005) suggest that “education serves to orient children to distinct worldviews consistent with the unique goals, histories, and material realities of those cultural entities” (p. 20). Aikenhead (1997) explains that ideologically neutral teaching strategies do not exist and that the learning experiences provided through formal education expose children to culturally embedded instruction where teachers, in many ways, serve as culture brokers (Jegede & Aikenhead, 1999). It is argued that because students enter the academic environment with preexisting cultural frames, they must engage in a process of cultural border crossing when confronted with academic material (Aikenhead & Jegede, 1999).

The thesis behind cultural border crossing assumes that each academic subject taught in schools has a subculture of its own. This assumption is based on the premise that each course of study promotes subject-specific values, norms, expectations, beliefs, and conceptions of the world (Krogh & Thomsen, 2005). Jegede and Aikenhead (1999) maintain that the academic endeavor is a cross-cultural experience that requires students to manage and negotiate multiple cultural contexts daily. Rogoff (1995) highlights that the cultural contexts to which children are exposed can be complementary, overlap, or conflict with

one another. Children’s preexisting learning and coping strategies contribute significantly to their ability to cross cultural borders. The facility with which children are able to learn (i.e., cross cultural borders) within the academic environment is also highly dependent on whether or not the values, customs, and belief systems inherent in the subject-specific cultural communities are consistent with, complement, and/or respect those brought from the student’s home cultural community (Lee, 2002). Likewise, the facility with which children are able to develop worldviews that incorporate multiculturalism will be dependent on the skill mentors demonstrate in teaching and providing learning opportunities that not only introduce new forms of cultural thinking but reinforce, acknowledge, and respect the ways of knowing indigenous to each student’s cultural frame.

CONCLUSION: WORLDVIEW DEVELOPMENT AND MULTICULTURAL PERSPECTIVES

The process by which a worldview is developed is complex and multi-influenced, and occurs across the span of the life cycle. Humans, by nature, seek to understand their surroundings. As such, comprehensive yet personal conceptualizations of life, the world, and the relationship one holds with the larger environment have been created, adapted, and transmitted by various cultural groups. Strongly influenced by culture, worldview consists of the beliefs and assumptions one holds about the world. These beliefs and assumptions inevitably influence the goals, behaviors, problem-solving methods, conflict resolution activities, and decision-making processes that shape interactions and practices within the larger environment (Ibrahim, 1991). Sue (1978) highlighted that the perceived relationship one develops with nature,

institutions, people, and objects is a function of worldview.

The process of worldview development is a function of internalization of the information learned through mentored learning experiences and historical context. A child's biological predisposition interacts with his or her psychological processes to influence how the information provided through social and cultural interaction is absorbed, internalized, and acted on. Within the present historical context, learning experiences have been supplemented by various technological advances that have facilitated exposure to "other" ways of knowing and a diverse array of mentors. Within the United States of America, not only do parents, teachers, and peers serve as mentors, but entertainers, politicians, and journalists provide models for societally constrained "acceptable" behavior and discourse.

The present historical context necessitates that we, as potential socializing agents, engage in a thoughtful consideration of the means by which we can help children develop worldviews that incorporate a multicultural perspective. It is within the current context that globalization has dismantled the boundaries that once contributed to an ethos of

egocentrism. Children are confronted with multiple cultural contexts on a daily basis. No longer are homogeneous neighborhoods, schools, churches, and families the norm. As our country becomes more diverse, it is imperative that shifts occur in the socialization practices used to ready children for successful incorporation in the larger society. Because cultural processes are socially negotiated, interactive, cumulative, internal to group members (Greenfield et al., 2003), and evolve as cultures and value systems change over time (Greenfield et al., 2000), children in consort with socializing agents have an opportunity to actively correspond to the changing historical, economic, and environmental demands.

Helping youth develop a worldview that incorporates and acknowledges multiculturalism is linked to the processes by which cultural learning occurs. Cultural learning flows from the culturally specific transmission methods utilized to teach and forward information to future generations of cultural group members. Learning and, in particular, cultural learning lies at the crux and forms the foundation upon which the development of a multicultural perspective, that is, a worldview that incorporates multiculturalism, is based.

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