

Chapter 13

Toddlers' guided participation with their caregivers in cultural activity*

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This chapter focuses on cultural similarities and variations in the guided participation of children in sociocultural activities. Children around the world, including middle-class US children, learn and develop in situations of joint involvement with other people in culturally important activities. Caregivers and companions collaborate with children in deciding the nature of children's activities and their responsibilities for participation. In the process of collaboration, children adapt their knowledge to new situations, structure problem-solving attempts, and regulate their responsibility for managing the process. This guidance and participation includes tacit forms of communication and distal arrangements of children's activities, as well as explicit verbal interaction. The mutual roles played by children and their caregivers rely on both the interest of caregivers in fostering mature roles and skills and children's own eagerness to participate in adult activities and to push their development.

Along with similarities across cultures in children's guided participation in sociocultural activities are important differences in the skills that are valued, the means of communication (e.g., dyadic conversation between adults and children versus action communication with status differences in conversation between adults and children), and the extent to which children enter into adult activity versus adults sharing children's activity. Middle-class children may need didactic instruction, owing to their segregation from opportunities to observe and participate in important cultural activities, whereas children who have the opportunity to participate in the activities of their community may be able to shoulder the responsibility for learning themselves.

These themes are explored with illustrations from preliminary analyses of observations of eight toddlers and their caregivers from a Mayan town in Guatemala and eight toddlers and their caregivers from an urban setting in

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the United States (Salt Lake City). (The data are from a larger study reported as a monograph, involving 56 toddlers from Guatemala, India, Turkey, and the United States. Rogoff, Mistry, Göncü and Mosier, 1993.) The toddlers from each setting involved an approximately equal number of boys and girls, first-born and later-born children, and younger (12 to 16 months) and older toddlers (20 to 23 months). Half of the Salt Lake City families were Mormon; half of the Mayan families were Catholic and the remainder Protestant. The Salt Lake City families were much more affluent, with middle-class occupations and high school or college educations; the Mayan families owned relatively little property, with most fathers in farming or labor jobs and most mothers having third-grade schooling or less.

Our observations were videotaped in a home visit involving child-rearing questions and the opportunity to observe the children and their families in everyday problem solving: exploring novel objects (which we supplied), playing social games, handling the feeding implements of their community, being dressed, and treating other people appropriately. In this chapter, we focus on three episodes of interaction in which we asked mothers to get their toddlers to work a wooden nesting doll (like those from the Soviet Union) that comes apart into bottom and top halves, to make a tortilla or hamburger patty out of playdough, and to "take care of" a plastic babydoll. The toddlers interacted with their mothers; in many families, fathers, siblings, and grandparents were involved as well.

The interactions were analyzed in a process of pattern analysis (Rogoff and Gauvain, 1986) that began with close ethnographic transcription of each case, attempting to portray the meanings of the events for the participants in terms that capture local family goals and practices. Then, with the intimate knowledge of the data that develops from such transcription, the team developed specific categories of interaction that we thought portrayed the crucial similarities and differences across communities in terms that could abstract across the specifics of the observations while maintaining the essence. (It was a long process of dialogue across the four researchers, with all representing their knowledge of a different community, which derived from the transcriptions and from either having originated in that community or nation or having spent at least two years in the community.)

The data reported here are based on preliminary application of these analysis categories; they are preliminary in that the definitions are still in the process of being clarified, and we have not examined the extent to which two observers of the same videotape would code the events similarly. Hence we provide the observations as suggestions rather than as final findings, as a start in describing the patterns of guided participation that may be similar and those that may vary in different cultural communities.

This chapter first discusses our conceptual framework deriving from a Vygotskian sociohistorical approach to development and from the concept of guided participation (Rogoff, 1990) that focuses on the tacit and routine

arrangements of children's activities and involvements. Using our observations of the eight Mayan and eight Salt Lake City toddlers, we discuss similarities as well as important differences in the children's guided participation in cultural activities. The observations are discussed as they relate to each conceptual issue, with a later section describing two contrasting cases in greater detail.

Sociohistorical approach to development

The influence of the sociohistorical school on conceptions of development has been marked in work on cultural psychology. Scholars interested in cognitive development in cultural context returned from fieldwork believing that views of development that assumed generic and general progress with age were not adequate to their observations that people seemed to vary in their skills according to the cultural familiarity of the context in which they were observed (Laboratory of Comparative Human Cognition, 1983; Rogoff, 1982b; Rogoff, Gauvain, and Ellis, 1984). Many researchers interested in culture and development found in the writings of Vygotsky a theory that laid the groundwork for a necessary integration of individual development in social and cultural context.

Crucial to the sociohistorical approach is the integration of individual, social, and cultural/historical levels within the analytical unit of *activity* (Cole, 1985; Leont'ev, 1981; Vygotsky, 1987; Wertsch, 1985; Zinchenko, 1985). Activity involves individuals with others in shared efforts with societal organization and tools.

In contrast with most other theories of development - which focus on the individual and the social or the cultural context as separate entities, adding or multiplying one and the other — the sociohistorical approach assumes that individual development must be understood in (and cannot be separated from) the social context. Vygotsky stressed that cognitive development involves children internalizing skilled approaches from their participation in joint problem solving with more skilled partners, who bring the intellectual tools of society within the reach of children in the "zone of proximal development."

Cole (1985) suggested that in the zone of proximal development, culture and cognition create each other. Interactions in the zone of proximal development are the crucible of development *and* of culture, in that they allow children to participate in activities that would be impossible for them alone, using cultural tools that themselves must be adapted to the specific activity at hand and thus are both passed along to and transformed by new generations.

Such an approach views individual development as dependent on interaction with other people in activities involving societal values, intellectual tools, and cultural institutions. Although many researchers treat the zone of proximal development as interaction between children and their social partners, such analysis is incomplete unless it also considers the societal basis

of the shared problem solving - the nature of the problem the partners seek to solve, the values involved in determining the appropriate goals and means, the intellectual tools available (e.g., language and number systems, literacy, and mnemonic devices), and the institutional structures of the interaction (e.g., schooling and political and economic systems).

Ironically, the sociohistorical school's formulation of the relation between individual, social, and cultural processes is not only its strength but its weakness. Despite the theory's emphasis on context and society, it nonetheless maintained assumptions regarding the contexts and societal approaches that are most valuable. Vygotsky focused on the sort of language and analysis that characterize academic learning, consistent with the agenda of his nation at the time he wrote (to establish a new Soviet nation with widespread literacy) and with Vygotsky's own upbringing and early career (as a Jewish intellectual and literary critic). In Vygotsky's collaboration with Luria (1976) on "cross-historical" studies in Central Asia, the bias of these views is apparent in the evaluation of the non-literate peasants' versus the literate subjects' ways of thinking,

This unidirectional focus privileging academic, literate approaches — common to Vygotskian as well as to other major developmental theories — must be questioned if we are to understand the cultural context of development, as the goals of literacy and academic discourse are not universal. Understanding the development of children in the context of their own communities requires study of the local goals and means of approaching life.

From our perspective, each community's valued skills constitute the local goals of development. Societal practices that support children's development are tied to the values and skills considered important. It is not possible to determine if the goals or practices of one community are more adaptive than those of another, as judgments of adaptation cannot be separated from values. For middle-class US children, the skills and patterns of social interaction practiced in school may relate closely to those necessary for eventual participation in the economic and political institutions of their society. In other communities — within the United States and elsewhere — other goals and practices take prominence.

Guided participation and its similarities in two communities

The concept of *guided participation* (Rogoff, 1990) revises the idea of the zone of proximal development to include the developmental goals and means of communication of cultures other than those stressing literacy and academic analytical forms of discourse. The concept is also intended to address the everyday routine involvement of young middle-class children in the activities of their communities — involvement that is not captured in models of interaction based on didactic school lessons.

Guided participation stresses tacit forms of communication in the verbal and non-verbal exchanges of daily life and the distal arrangements involved in the regulation of children's activities, material goods, and companions. The notion of guided participation emphasizes the active role of children in both observing and participating in the organized societal activity of their caregivers and companions. In this more inclusive approach, the aim is to encompass more of the daily activities in which children participate and develop skill in and understanding of the valued approaches of their cultural community.

The emphasis on participation in the notion of guided participation has important implications for the question of how children gain from social interaction. With several theoretical approaches, the process is termed internalization, with the view that children bring external processes "inside." In contrast with such views, however, Rogoff (1990) suggested that the process is one of *appropriation*, emphasizing that children are already participants (either central or peripheral) in ongoing activity. As such, they already function *within* activities as they learn to manage them, rather than engaging in a two-stage process of, first, social lessons and then individual internalization in order to put the social lessons inside their heads. Children make later use of their changed understanding resulting from their contribution and involvement with joint problem-solving processes in new situations that resemble the ones in which they have participated. Rather than importing an external process to the internal plane, they appropriate a changed understanding from their own involvement and can carry to future occasions their earlier participation in and their gains in understanding of social activity. As Wertsch and Stone (1979, p. 21) put it, "the process *is* the product."

Although there are important cultural differences in valued activities and means of communication, dealt with in subsequent sections of this chapter, we believe that the processes of guided participation are widespread across differing cultural groups. In this section, we focus on processes of guided participation that we propose are similar across widely different cultural communities.

In almost all (44 of 47) of the episodes we observed involving the nesting doll, the dough, and the babydoll, the toddlers were closely involved with their parents, engaged with the same agenda (e.g., parent and child working the object together; or the parent attempting to assist the child with the object, and the child attempting to work the object with the parent's help). It is likely that if the event had not involved a focus on the toddler (due to the visitors' request to the mother to have the child work the objects), the extent of joint activity would have been much lower in both communities, a topic we will address in a subsequent report. Our point here is that in situations in which caregivers are focused on toddlers, caregivers and toddlers in both communities engaged in close communication.

Such communication between children and their caregivers involves two focal processes, discussed below, that we expect to be widespread across varying cultural communities: *creating bridges* to make connections to new ideas and skills, and *structuring the children's participation* in activities through opportunities available for their involvement and through social support and challenge in activities and roles valued in their community.

Bridging to make connections between known and new

Inherent to communication is a collaborative effort of partners to find a common ground of understanding on which to base their contributions in order to ensure mutual comprehension. Partners initially have somewhat (or greatly) discrepant views of a situation, but seek a common perspective or language through which to communicate their ideas. This effort to reach a common ground involves a stretch on the part of the participants. Middle-class adults often adapt their contribution to fit with what they think the children can understand, restructuring the problem definition to be within children's grasp (Wertsch 1984). At the same time, children's efforts to participate in ongoing communication involve a stretch in the direction of a more mature definition of the situation and more skilled roles. From the collaboratively constructed common ground, which itself involves development, the participants may share in thinking as they extend their joint understanding together.

Bridging between two starting points involves emotional and non-verbal as well as verbal forms of communication. Children seek connections between old and new situations in their caregivers' emotional cues regarding the nature of a situation and how to handle it, in their interpretations of children's behavior, and in their labels for objects and events that inherently classify similarities across objects and events. All of the parents we observed indicated to the toddlers the nature of the activity with the object, orienting the children verbally in an average of 85 percent of the episodes and non-verbally in 91 percent of the episodes.

One kind of non-verbal bridging that provides young children with information about ambiguous situations is social referencing, in which infants as young as 10 months seek information from adults' expressions. They proceed to explore if the adult appears content but avoid the ambiguous situation if the adult appears fearful (Feinman, 1982; Gunnar and Stone, 1984; Sorce, Emde, Campos, and Klinnert, 1985).

An example is provided by a 20-month-old Mayan boy who attempted to gather information about an ambiguous situation: whether or not a playdough tortilla was edible. He had been skillfully patting the playdough that we had brought along into a "tortilla," with his mother's guidance:

The baby broke off a tiny corner of the little tortilla he had made and

held it up expectantly to his mother. She absently nodded to the baby as she conversed with the adults present.

The baby brought the piece of play tortilla to his mouth and, looking at his mother fixedly, he stuck out his tongue and held the piece of tortilla toward it, with a questioning expression. His mother suddenly bolted out her hand and snatched his hand holding the piece of tortilla away from his mouth, blurting out "No! Not that!" The baby looked at her with a little surprise but was not disturbed by this clear message that the dough is not edible; he watched quietly as she laughingly put the little piece of dough back on the rest of the tortilla, put it back into the baby's hand and told him that it is not to eat. He resumed patting the dough contentedly.

The mutual adjustments in communication that provide the basis of bridging between adults and children reflect adherence to principles of communication (e.g., Clark and Haviland, 1977) that a speaker be sensitive to the perspective and knowledge of the listener and that conversation focus on what is deserving of comment from the joint perspective of speaker and listener. Although there are likely to be asymmetries in responsibility for adjustment according to the status of the participants, the situation, and societal standards of responsibility for adjustment (discussed later), the phenomenon of seeking shared meaning is in the nature of human communication. Indeed, some argue that intersubjectivity between infants and their caregivers is innate — that from the earliest interactions infants are involved in the sharing of meaning (Brazelton, 1983; Luria, 1987; Newson, 1977; Trevarthen, Hubley, and Sheeran, 1975).

Collaborative structuring of problem solving

Caregivers and children arrange the structure of situations in which children are involved through both distal arrangements and explicit interaction. Social activity is managed through assignment of and opportunity for participation in varying activities, such as the household chores in which 14 of the 16 toddlers were reported to engage, as well as through structuring children's responsibility for an activity through ongoing communication. Both adults and children are responsible for deciding children's activities and their role in them, often through tacit and pragmatic determination of children's skills and interests, as well as through more explicit arrangements for children's growing participation in the activities of their culture.

During caregiver-child communication, participants collaborate in structuring children's roles through division of responsibility for the activity. The more skilled partner may provide "metacognitive" support through handling higher-order goals as children handle the subgoals of which they are capable with assistance, allowing children to achieve more in collaboration than they

can independently. With the nesting doll and playdough, most caregivers adjusted the object or its position to facilitate the toddlers' efforts, divided or simplified the task, and handled difficult moves for the child (in 94 percent, 75 percent, and 62 percent of the episodes, respectively). Such structuring was a little less frequent with the babydoll, perhaps owing to its familiarity to the children.

Children's roles in structuring an activity in social interaction may involve central responsibility for managing the situation — even when their partners have greater knowledge — and for adjusting their own level of participation. One-third of the toddlers clearly negotiated shifts in responsibility for handling the objects, seeking greater involvement or greater assistance, or resisting caregivers' suggestions. When there were tussles between caregivers and children regarding the agenda, the outcome was more likely to involve the toddlers' agenda, particularly in the Mayan community, which stresses respect for infants' autonomy. Children's interest and care-givers constraints may ensure that young children's roles in routine activities adjust according to their interest and skills, within a dynamic zone of proximal development.

Cultural variation in the goals of development

Differences across cultures in guided participation involve variation in the skills and values that are promoted according to cultural goals of maturity. Cultural communities vary in their institutions and related tools and technologies. Cultural psychologists and sociocultural theorists have argued that underlying the cognitive differences across cultural (or historical) groups are intellectual tools such as literacy and arithmetic (Cole and Griffin, 1980; Rogoff, 1981b; Rogoff et al., 1984; Scribner and Cole, 1981; Vygotsky, 1978, 1987). Communities differ in the skills considered important (e.g., reading, weaving, sorcery, healing, managing people) and approaches valued (e.g., individual achievement, speed in performance, interpersonal harmony).

Skills for the use of cultural tools such as literacy begin to be practiced even before children have contact with the technology in its mature form. Middle-class US parents involve their children in "literate" forms of narrative in preschool discourse, as they embed their children in a way of life in which reading and writing are integral to communication, recreation, and livelihood (Cazden, 1988; Heath, 1982, 1983; Michaels and Cazden, 1986; Taylor, 1983).

Cultural differences in children's activities are apparent in the chores in which the mothers reported that their toddlers participated. Most of the toddlers helped with sweeping or food preparation, but most Salt Lake City toddlers also helped manage household machines such as vacuum cleaners and dishwashers; the Mayan children had less involvement with machines, but some had roles in economic activities of the adult world, such as running errands to a corner store and trying to weave.

Cultural variation in adult-child roles and communication

There appear to be striking cultural differences in the means available for children to observe and participate in culturally important activities as well as to receive instruction outside the context of skilled activity. These differences relate to variations in the explicitness and intensity of verbal and non-verbal communication and the interactional status of children and adults (Field, Sostek, Vietze, and Leiderman, 1981; Leiderman, Tulkin, and Rosenfeld, 1977; Whiting and Edwards, 1988). Rogoff (1990) suggested that these cultural differences fit together into patterns that vary in terms of the responsibility adults take for reaching children in cultures in which children do not participate in adult activities, and the responsibility children take for learning in cultures in which they have the opportunity to observe and participate in mature cultural activities.

Cultural variation in verbal and non-verbal communication

An emphasis on explicit, declarative statements — in contrast to tacit, procedural, and subtle forms of verbal and non-verbal instruction — appears to characterize cultures that promote Western schooling (John-Sreiner, 1984; Jordan, 1977; Rogoff, 1981b, 1982a; Scribner 1974; Scribner and Cole, 1973). The emphasis of Western researchers on talking as the appropriate means of adult-child interaction may reflect a cultural bias that overlooks the information provided by silence, gaze, postural changes, smells, and touch. Middle-class US infants have been characterized as "packaged" babies who do not have direct skin contact with their caregiver (Whiting, 1981) and often spend more than one-third of their time in a room separate from any other people. US infants are held approximately half the time, as are Gusii (Kenyan) infants (Richman, Miller, and Solomon, 1988).

The physical separation of US infants from other people may necessitate the use of distal forms of communication such as vocalizing. In contrast with US children's use of distal communication, children who are constantly in the company of their caregivers may rely more on non-verbal cues, such as direction of gaze or facial expression. Infants who are in almost constant skin-to-skin contact with their mothers may manage effective communication through tactile contact in squirming and postural changes.

In our observations, almost all of the toddlers received both explanations and demonstrations of what they were to do with the nesting doll, dough, and babydoll from their caregivers. However, the amount of parental talk to the Salt Lake City toddlers was much greater, as can be seen in Table 13.1. Most Salt Lake City caregivers used many sentences, whereas most Mayan caregivers spoke few sentences and some spoke none. The Salt Lake City

Table 13.1 Episodes with differing amounts of talk, by toddlers' age

	Salt Lake City		Mayan community	
	12-16 mo	20-23 mo	12-16 mo	20-23 mo
Total no. of episodes	12	12	12	11
Caregiver's talk				
Many sentences	8	8	2	4
A few sentences	4	2	6	5
Phrases at most	0	2	4	2
Toddlers' talk				
Many words; phrases	8	1	0	0
A few words	3	6	3	0
No words	1	5	9	11

caregivers averaged 2.0 episodes with extensive talk, whereas the Mayan caregivers averaged only 0.9 episodes with extensive talk, $F(1,14) = 4.8$, $p < 0.05$.

The Mayan toddlers, in turn, were much less talkative: most of the older Salt Lake City toddlers' episodes involved speaking many words or phrases, whereas most of the Mayan episodes involved no talk at all by the toddler. (The community difference was significant, $F[1,14] = 24.9$, $p = 0.0003$, as was the age difference, $F[1,14] = 6.9$, $p = 0.02$.)

Caregivers' use of some forms of non-verbal communication was similar across the two communities. Most caregivers used action communication, guiding the toddlers' hands or the object or indicating with gestures.

There were differences between the caregivers from the two communities in other kinds of non-verbal communication as well. The Mayan caregivers' interactions relied more on information carried in gaze or postural or timing changes: the exchange of information by means of caregivers' gaze or by means of changes in caregivers' posture or pacing was essential for communication during an average of 1.9 and 2.2 Mayan episodes, respectively, and for only 0.5 and 0.2 Salt Lake City episodes, $F(1,14) = 6.3$, $p = 0.02$; $F(1,14) = 32.0$, $p = 0.0001$.

The Mayan babies, like the Mayan caregivers, relied more on non-verbal communication through action communication, gaze, and changes in posture or pacing. In an average of 1.6 and 1.9 Mayan episodes but only 0.5 and 0.8 Salt Lake City episodes, toddlers guided their partner's hands or the object, or gestured, $F(1,14) = 7.2$, $p < 0.02$; $F(1,14) = 4.9$, $p = 0.04$. Toddlers' gaze and changes in posture or pacing were essential during an average of 1.8 and 2.1 of the Mayan episodes, respectively, but in only 0.4 and 0 of the Salt Lake City episodes, $F(1,14) = 6.9$, $p = 0.02$; $F(1,14) = 51.9$, $p = 0$.

The Mayan caregivers held their hands in readiness to assist the toddlers

more frequently than the Salt Lake City caregivers (on 2.4 versus 1.1 episodes, $F[1,14] = 10.0, p < 0.007$), suggesting preparedness for the subtle communication of the Mayan children regarding a need for assistance.

Cultural variation in adult-child status and locus of responsibility for learning

Variations in the relative status of children and adults have been noted in observations of cultural differences regarding the likelihood of adults serving as play partners with children or carrying on conversations as if children were their peers. These status variations may relate to children's opportunities to participate in adult activities and thereby learn through involvement rather than needing separate child-focused teaching situations and interactions.

Adults in peer or asymmetrical roles with children

In some communities, young children are not expected to be conversational peers with adults, initiating interactions and interacting as equals in the conversation (Blount, 1972; Harkness and Super, 1977; Schieffelin and Eisenberg, 1984). Instead, they may speak when spoken to, replying to informational questions or simply carrying out directions. Children converse and play not with parents but with other children and kin such as older cousins, uncles, and grandparents (Farran and Mistry, personal communication; Ward, 1971).

Whiting and Edwards (1988) noted that of the 12 cultural groups they studied, the US middle-class mothers ranked highest in sociability with children — interacting in a friendly, playful, or conversational way, treating children at times as status equals - whereas in the other communities mothers stressed training or nurturant involvement with children, maintaining authority and dominance with respect to children.

In the Mayan community in which we carried out the research, when older children interact with adults it is in the context of adult work. Rogoff (1981a) observed that adults were as likely as or more likely than peers to be interacting with 9-year-olds when the children were doing household or agricultural work, but they were almost never involved with them when children were playing. Play is a domain for peer interaction, not adult companionship. During free time, children beyond age 3 or 4 move around town with a multi-age group of children, amusing themselves by observing ongoing events and imitating their elders in play, most of which involves emulation of adult activities.

Whereas US middle-class mothers consider it part of their role to play with their children - all eight of the Salt Lake City mothers reported that they and the children's fathers often play with the baby — seven of the eight Mayan mothers reported that neither parent played with the child. Several

Mayan mothers laughed with embarrassment at the idea of playing with their children, as being a playmate is the role of other children and occasionally grandparents. When a toddler is playing, reported the Mayan mothers, it is time for a mother to *get* her work done.

Ochs and Schieffelin (1984) contrasted two cultural patterns of speech between young children and their caregivers. In middle-class US families, caregivers simplify their talk, negotiate meaning with children, cooperate in building propositions, and respond to verbal and non-verbal initiations by the child. In Kaluli New Guinea and Samoan families, caregivers model unsimplified utterances for the child to repeat to a third party, direct the child to notice others, and build interaction around circumstances to which caregivers wish the child to respond. Ochs and Schieffelin pointed to the difference in adults adapting to children versus children adapting to adults. In both of these patterns, children participate in activities of the society, but the patterns vary in terms of children's versus caregivers' responsibilities to adapt in the process of learning or teaching mature forms of speech and action.

Opportunities for children to participate in and to observe adult activities

The adaptation of caregivers to children may be more necessary in societies that segregate children from adult activities, thereby requiring them to practice skills or learn information outside the mature context of use (Rogoff, 1981a, 1990). In the US middle class, children are segregated from the work and recreational world of adults, and they learn about skills they may eventually need in order to participate in their society as adults in a separate context specialized for the purpose (i.e., school).

Young US middle-class children seldom have much chance to participate in the economic functioning of the households and may be segregated from human company by the provision of separate bedrooms and a focus on attention to objects rather than people. Infants are often entirely alone for as much as 10 of 24 hours, managing as best they can to handle their hunger or thirst or comforting needs with objects (Morelli *et al.*, 1988; Ward, 1971; Whiting, 1981). All eight of the Salt Lake City toddlers had their own separate beds, and six of the eight had their own rooms; all eight of the Mayan toddlers slept in the same room as their parents, and seven slept in the same bed with their mothers (and usually with father or siblings as well).

In communities in which children are integrated in adult activities, children are ensured a role in the action, at least as close observers. Children are present at most events of interest in the community, from work to recreation to church. They are able to observe and eavesdrop on the ongoing processes of life and death, work and play, that are important in their community. As infants, they are often carried wherever their caregiver goes, and as young

children they may do errands and roam the town in their free time, watching whatever is going on. As non-participants in ordinary adult conversation, they may eavesdrop on important adult activities from which non-participant adults may be excluded.

Gaskins and Lucy (1987) noted that children's lower status and freedom to observe in a Mayan community in Mexico means that children have access to information unavailable to adults, providing extra eyes and ears for their mothers who stay at home and extract information regarding village events from the children. Mothers' questions about events focus children's attention on the relevant features of ongoing activities, guiding the children as to what aspects of events are significant. Observation and eavesdropping serve as an active method of obtaining information.

Children's versus adults' responsibility for learning and teaching

Cultural variation in the symmetry of children's and adults' roles and in the opportunities for children to observe and participate in adult activities may relate to cultural expectations that children are responsible for learning or that adults are responsible for making children learn through teaching (Rogoff, 1990).

Eavesdropping versus peer-status conversation and language lessons

Ward (1971) offered an eavesdropping account of language learning in her description of a black community in Louisiana, in which "the silent absorption in community life, the participation in the daily commercial rituals, and the hours spent apparently overhearing adults' conversations should not be underestimated in their impact on a child's language growth" (p. 37). Small children are not conversational partners with adults, people with whom to "engage in dialogue." Children are not encouraged to learn skills in initiating and monopolizing conversation with adults on topics of their own choosing (skills useful in middle-class schooling). Questions between children and adults involve requests for information, not questions asked for the sake of conversation, or for parents to drill children on topics about which the parents already know the answers. However, mothers' speech to children, although not taking the form of a dialogue, is carefully regularized, providing workable models of the language used in the community.

Heath (1983) similarly reported that working-class black Carolina adults did not see young children as conversational partners. Rather, the toddlers were always surrounded by others and moved through phases of echoing and experimenting with variation on the speech around them — at first ignored but gradually participating by making themselves part of ongoing discourse. Adults encouraged verbal facility by instigating and appreciating preschoolers'

involvement in assertive challenging and scolding exchanges with adults and other children. However, because children were not seen as information givers, they were not asked test questions for which adults already had an answer, such as questions of fact or detail.

An example of instructional discourse between an adult and a toddler, with peer interactional status and test questions, appears with a 21-month-old Salt Lake City child handling the babydoll with his mother:

The mother handed the doll to the toddler, saying, "What is it? Is that a baby? Can you take care of the baby?" with babytalk intonation. The toddler explored the doll and pointed to the eye, commenting, "Eye." His mother confirmed, "eye," and he asked "What dat?" as he pointed at the doll's face. The mother clarified and answered his question: "What's that? Her mouth." After some further interaction, the mother chirped "Where's her belly button?" When he pointed to the doll's belly button, the mother evaluated his response, "All right!" in the classic question-response-evaluation sequence that Mehan (1979) has documented as teacher-student discourse in the classroom.

In an average of 2.2 Salt Lake City episodes, parents interacted with toddlers as conversational peers, asking their opinions, responding to their vocalizations as conversation, and providing openings for equal dialogic exchanges, whereas the Mayan toddlers were treated as conversational peers in only 1 of 23 episodes, $F(1,14) = 106, p = 0$. The Salt Lake City toddlers assumed a peer role in 1.9 of the episodes, offering comments and initiating optional conversation but the Mayan toddlers never took a peer conversational role with their parents, $F(1,14) = 22.2, p = 0.0003$. Nonetheless, the toddlers in both communities interacted reciprocally with their parents in almost all episodes with joint action and action communication. It is the presence of verbal dialogue that most differentiates the interactions of the two communities.

Many of the episodes with the Salt Lake City toddlers involved talk that can be seen as lessons in language use; such language lessons almost never occurred in the Mayan episodes. The Salt Lake City caregivers used marked babytalk intonations and speech in an average of 2.5 episodes; the Mayan caregivers did in only 0.5 episodes, $F(1,14) = 18.7, p = 0.0007$. The Salt Lake City caregivers used test questions, asking for information they already knew, in an average of 1.4 episodes; the Mayan parents never did, $F(1,14) = 13.4, p = 0.002$. The Salt Lake City caregivers labeled events or object parts didactically, produced running commentaries describing and evaluating ongoing events, and they played word games in 2.1, 2.1, and 1.0 episodes, respectively; the corresponding amounts for the Mayan caregivers were 0.4, 0.1, and 0.1 episodes, $F_s = 19.6, 28.9, 8.8, p_s < 0.01$.

This finding does not necessarily mean that the Salt Lake City parents were

self-consciously producing such "lessons"; they may have been, or they may have interacted with their children in this manner in an intuitive fashion. Whatever their explicit purpose, the differences in types of adult-toddler talk in the two communities are striking.

In communities in which children are not conversational partners of adults, they may be poorly prepared for the pattern of discourse used in school, but they become proficient in the language and other skills of their community. They are able to learn from observing and eavesdropping as ever-present members of the community, their growing participation in daily activities from an early age, the questions and directives and demonstrations of adults, and their playful talk with other children.

Observation and attention management

With opportunities to observe ongoing activity and to help when necessary, children from many cultures begin to participate in chores and other activities from age 3 or 4, when they begin to see what to do; they assume responsibilities for child, animal, and house care by age 5 or 7 (Rogoff *et al.*, 1975; Ward, 1971; Whiting and Edwards, 1988). Their role grows and their opportunities to practice are amplified by their interest in participation and by their parents' setting them tasks within their capabilities and providing suggestions and demonstrations *in the context of joint activity*. In observations in the Mayan community, native observers identified only 6 of 1,708 occasions in which 9-year-olds were explicitly being taught outside of school (Rogoff, 1981a).

An example of children's learning in the context of participation is Mayan mothers' reports of how their children learn to make tortillas. Although the Mayan mothers give pointers and structure their children's efforts, they do not regard the process as teaching; they claim that the children simply learn. They, along with researchers, seem to regard teaching as the sort of interaction that goes on in schools. According to Mayan mothers, 1- to 2-year-olds observe their mothers making tortillas and attempt to follow suit. The mothers give them a small piece of dough to use and facilitate their efforts by rolling the dough in a ball and starting the flattening process. The toddler's "tortilla" is cooked and eaten by family members. As the child gains skill in making tortillas, the mother adds pointers and demonstrations to facilitate holding the dough in a position that facilitates smooth flattening, and the children can witness the outcome of their own efforts and contribute to making meals. The child observes carefully and participates, and the mother simplifies the task to the child's level of skill and demonstrates and gives suggestions during the process of joint activity.

Questions by children to adults are rare in some communities (Heath, 1983). Learners' questions to a teacher may be regarded as impolite challenges

in that they involve a subordinate obliging a superior to respond. This exchange implies that the subordinate has the right to hold the superior responsible for the information requested, as Goody (1978) observed in the apprenticeship of Gonja youths learning to weave.

Rather than relying on questions and explanations to organize their learning, observers may be skilled in picking up information through watching, on some occasions without hands-on participation. Nash (1967) reported that the method of learning to use the footloom in a "weaving factory in Guatemala is for the learner (an adult) to sit beside a skilled weaver for a period of weeks, simply observing, asking no questions and receiving no explanation. The learner may fetch a spool of thread from time to time for the weaver but does not carry out the process, until after a period of weeks the learner feels competent to begin. At that point, the learner has become a skilled weaver simply by watching and by attending to whatever demonstrations the skilled weaver has provided.

In our observations, the Mayan toddlers appeared more likely to monitor peripheral social events outside their own activity or their activity with their caregiver (doing so during an average of 2.5 episodes) than were the Salt Lake City toddlers (who monitored during an average of 1.1 episodes). The Mayan toddlers appeared to be able to attend to several events simultaneously (e.g., working the object with the caregiver and monitoring other conversation, glancing at and being involved with the flow of events, on an average of 2.1 episodes), whereas the Salt Lake City toddlers seldom appeared to attend to several events simultaneously (averaging only 0.4 episodes, $F[1,14] = 25.4$, $p = 0.0002$). The Salt Lake City toddlers were more likely to attend to one event at a time: their own activity or a joint activity, either exclusively or alternating attention between their own activity and other events.

The Mayan caregivers, like the children, appeared able to engage attention with several events simultaneously. Their timesharing of attention may have been facilitated by their reserving verbal channels of communication for adult conversation and relying heavily on non-verbal channels — gaze, posture, timing, and action communication — with the toddlers. In an average of 2.2 episodes, they tracked several events simultaneously, compared with 0.5 Salt Lake City episodes, $F(1,14) = 22.9$, $p = 0.0003$. The Salt Lake caregivers usually alternated attention with other events if there were competing events that caught their attention.

In communities in which observation is possible, people may be especially active and skilled observers. Mainstream middle-class researchers, who may rely less on observation, tend to think of observation as passive. However, this research suggests that in some settings children and adults are skilled and active in attending to what they watch. In the guided participation of children in cultural communities that stress children's responsibility for learning, children may have the opportunity to observe and participate in the skills of the community and may develop impressive skills in observation, with less

explicit child-centered interaction to integrate the child in the activities of society. Skilled observation may allow skilled participation by very young children, yielding impressive skill and responsibility in such activities as tending younger children (Weisner and Gallimore, 1977) or handling knives (Sorenson, 1979).

Efforts to aid children in learning may thus vary in terms of the children's responsibility to observe and analyze the task versus the caregivers' responsibility to decompose the task and motivate the child. Dixon, LeVine, Richman, and Brazelton (1984) noted that Gusii (Kenyan) mothers gave their 6- to 36-month-old infants the responsibility for learning. They used clear "advance organizers" in instruction, often modeling the expected performance in its entirety, and appeared to expect the task to be completed exactly as specified if the child attended to it. This method contrasted with the efforts of American mothers, who took the responsibility for teaching and making their babies learn. They concentrated on arousing the children's interest and shaping their behavior step by step, providing constant encouragement and refocusing.

In our observations, the Salt Lake City parents seemed to take greater responsibility for motivating their children and for managing their attention. The Salt Lake City parents attempted to manage their toddlers' attention in an average of 1.5 episodes, whereas only 0.4 Mayan episodes involved parental management of the child's attention, $F(1,14) = 7.2, p < 0.02$. Consistent with the observations of Dixon *et al.*, the Salt Lake City caregivers often tried to arouse their children's interest, showing mock excitement about an activity in an average of 2.0 episodes, compared with only 0.4 episodes with Mayan caregivers, $F(1,14) = 12.5, p = 0.003$. Consistent with teachers' efforts to motivate, half of the Salt Lake City episodes involved praise for the child's performance, but such praise occurred only once in 23 Mayan episodes, $F(1,14) = 18.7, p = 0.0007$.

Two toddlers with their mothers and the nesting doll

A contrast in verbal versus non-verbal communication, status relations of partners, and teaching versus learning emphases is apparent if we compare a 20-month-old from each community. Both are first-born boys whose handling of the nesting doll was skilled and interested and included a counting routine with their mothers. For both communities, the interaction style was extreme in similar ways: counting routines were not usual with this toy in either community (these two boys are the only children of the 16 who counted or were encouraged to count the nesting doll pieces), and both mothers appeared more concerned with their children's performance than most other mothers from their communities. For the Salt Lake City mother, the concern took the form of greater directiveness and of putting herself at times into a more extreme peer role with the child, acting like a child herself, than the other

Salt Lake City mothers. The Mayan mother was somewhat more directive with the child than the other mothers from her community. So the style of both mothers is extreme for their communities, in the same direction.

The most important differences between these two dyads are in status roles — the Salt Lake City mother getting on the child's level and playing or teaching versus the Mayan mother assisting the child but maintaining a difference of status - and in responsiveness and subtlety of their verbal and non-verbal communication. The differences are consistent with the Salt Lake City child being treated as the object of teaching and the Mayan child being responsible for learning. This example is in line with differences in the sample as a whole, in which Salt Lake City caregivers acted as teachers in an average of 1.1 episodes and as playmates in 1.1 episodes, whereas Mayan caregivers never acted as teachers or playmates with the toddlers: $F_s = 10.3, 14.5, p_s < 0.006$. Rather, the Mayan caregivers showed readiness to aid in their children's efforts to learn.

It is important to note that although the style of the two mothers differed, each mother used both verbal and non-verbal communication adjusted to her child, and each child was comfortably engaged with his mother in handling a problem that was challenging but supported in the interaction.

The Mayan mother monitored her son's actions with the object; and though she told him clearly what to do, her moves were generally responsive rather than initiatory, and she did not overrule his agenda. The Salt Lake City mother, in contrast, interrupted her child's pace and at many moves seemed to attempt to manage the agenda, even to the point of lack of coordination of the moves between mother and child. The communication between the Mayan mother and child was subtle, whereas that between the Salt Lake City mother and child involved loud and frequent talk and large movements. The Mayan mother managed to participate in adult conversation simultaneously with her support for the baby's efforts; the Salt Lake City mother focused exclusively on the child, though other adults were also present.

Salt Lake City mother and 20-month-old

The Salt Lake City mother began playing with the nesting doll as if she were herself a child, giggling and waving her hands in an animated fashion and bouncing up and down and squealing as she knelt on the floor with the child. She poked at the baby with the nesting doll and tickled him; she took pieces of the toy and made up new games with them, hiding them or putting them inside other objects. She sometimes turned the toy over to him by saying "Your turn," thereby emphasizing the equality of status.

When the baby handled the toy, she sometimes changed to an instructional tone: "*On*. Put the lid *on*" and cheered "Wonderful! Yay!" and applauded his moves, frequently gushing "Oh, you're so smaaart! You're so smaaart! I love you!" with a hug. The baby generally worked calmly with the

object but sometimes giggled with his mother. The father sat nearby and watched placidly as if the mother's actions were not out of the ordinary.

Much later in the visit, the interviewer brought out a new version of the nesting doll, which the mother helped the baby take apart and put together, cheering "Yay! There you go, Buddy!" and jumping him up and down on her lap. When the littlest doll appeared, she gasped in exaggerated surprise and enthusiastically exclaimed, "There's three of them!" She proceeded to count them, with the child following her cues to count, but the counting efforts of the mother and child were uncoordinated, with the mother both instigating and echoing with a confusion of sequence that got more complicated during the next round of counting. When the mother said "two," the baby said "one," and when she finished with "three," the baby said "two." The mother then started counting again, saying "one" before the baby said "three."

Then the mother changed the routine, holding the bottom pieces out on her flat palm and encouraging him to put the nesting doll together, "Does the lady go in there?" She encouraged in a sweet babytalk intonation, "That's right! . . . Put her in. *In*," emphasizing the term. She used a sweet voice throughout, and when he did it differently than she suggested, she emphasized his independent choice, "OK, do you want to put her that way? . . . That's fine . . . Do you choose that way?" The mother went on with the lesson in putting the pieces together, directing the baby's actions with language instruction, cheering and providing commentary on his actions, and enthusiastically marking and praising his "individual" accomplishment.

Mayan mother and 20-month-old

The playmate and teacher roles taken by the Salt Lake City mother differed from the role taken and means used by the Mayan mother, although the Mayan mother appeared to be focused on encouraging her son's performance and is a member of a family that stresses schooling; she herself has a high level of education by community standards (ninth grade, the highest in the Mayan sample).

The mother demonstrated how the nesting doll comes apart and fits together, with a few words to encourage him to look. The baby insisted on handling the toy himself; after a moment the mother took the doll back and demonstrated again, leaning over with the two halves of the big doll, saying quietly, "I'll put it together." The baby held the small inside doll and complained to get access to the big outside doll. The mother looked into the baby's eyes and pointed out "Two . . . two . . ." and handed the big doll back to the baby, repeating "two" with a significant gaze. Then she demonstrated opening and closing the small inside doll, commenting only "Look" as the baby watched her pull the big outside doll apart, saying "Put it inside." She set down the two big halves carefully in front of the baby, and set the little

doll inside to demonstrate the sequence to the baby, pausing a couple of times to look at the baby to be sure he was watching. He was.

The baby went on to handle the pieces himself for a while, as his mother conversed with adults at the same time as she occasionally demonstrated the actions to the baby, using gestures and timing to emphasize the essential aspects of the action to the baby while talking and looking at the adult with whom she spoke. She thus directed the baby in an unobtrusive fashion, and when he resisted her suggestions she did not insist.

When he had trouble, the mother instantly intervened and demonstrated, commenting, "Do this one first . . . and then cover it up with this one." The baby was attentive and attempted to work the nesting doll again, as the mother monitored his efforts and held her hands ready to help him, not interfering unless he had difficulty. This process continued until the doll was assembled, and the mother then subtly demonstrated again by carefully holding the pieces in position and making a few quiet comments. The baby watched patiently and acknowledged the demonstration with an "Okay" as if to say, "I see."

Now he could put the pieces in the right positions, and the mother merely monitored his actions as she chatted with the adults. The baby monitored the adult conversation as he worked the toy. Once the baby kissed the doll, and the mother and others encouraged him to do it again, responding with pleasure to his idea. He cheerfully continued. Then he turned and counted quietly as he put two pieces in her lap, "One . . . two . . ." The mother repeated "two" after him, and the baby put the third piece in her outstretched hand, "three," and the mother echoed, "three." There did not seem to be further acknowledgment of the baby's counting, though he had said little else during the session.

It is notable that the Mayan baby's counting, like his kissing of the doll, was at his instigation; it received a pleasant acknowledgment but did not become a public evaluation of his intelligence or a reason for expressions of love. The baby's actions, rather than being the exclusive, individual focus of the mother, fit into the flow of ongoing social events, with both the mother and child monitoring each other and the other social activities as they handled the object. Though the child received attention, it was not exclusive; rather, the child appeared to be smoothly integrated into the social fabric, not a recipient of baby-directed play or special registers of speech.

These two examples illustrate how middle-class US parents may assume didactic and dyadic roles as they rely on their own efforts to motivate children to learn, in contrast with caregivers in cultures in which children have the responsibility to learn and are involved with many other social partners in the process.

Conclusions

Children in a wide variety of cultural communities, including middle-class US communities, appear to have in common opportunities to learn through guided participation in culturally arranged activities, learning and developing in situations of joint involvement with more experienced people.

Variations across communities have to do with what is being learned, with differing values and practices regarding such skills as literacy and other school-related technologies or management of people as in child care. Goals of development have local variation (along with species' similarities, of course) according to local practices and values.

Related variation across communities involves contrasting means of teaching/learning, differing with children's opportunities to observe and participate in adult activities or in child-oriented instructional interactions. Differences in children's versus adults' responsibility for children's learning appear to be accompanied by variations in the interactional roles of children and adults and in reliance on explanation out of context or observation and participation in the context of important adult activities. Such differences may lead to variation in children's skill in managing their own attention and observation, and in managing verbal interactions with adults as conversational peers. These skills and interactional practices are differentially useful for participation in varying institutional contexts such as formal schooling and economic activities.

Underlying these varying circumstances, however, are similarities in guided participation: caregivers collaborate with children in determining the nature of children's activities and their responsibilities in participation. They work together, and in the process children learn to manage new situations under collaborative structuring of problem-solving attempts and regulation of their responsibilities. This guided participation includes tacit forms of communication and distal arrangements of children's learning environments, as well as explicit verbal interaction. The mutual roles played by caregivers and children in children's development rely on both the caregivers' interest in fostering mature skills and the children's own eagerness to participate in adult activities and push their own development. Guided participation involves children's participation in the activities of their community, with the challenge and support of a system of social partners including caregivers and peers of varying levels of skill and status.

Guided participation may be universal, although communities vary in the goals of development and the nature of involvement of children and adults. Observations of variations in guided participation across cultures draw attention to:

- 1 Goals of mature contribution to the community that organize the skills and values that children learn

- 2 Opportunities available to children for learning in the arrangements made for children's activities and companions
- 3 Responsibility that children take for learning from the activities in which they participate and from rich opportunities for observation and eavesdropping
- 4 Tacit but ubiquitous nature of children's guided participation
- 5 Unselfconscious nature of the roles of children as well as of their social partners in day-to-day arrangements and interaction.

Observations in cultures other than those of the researchers may make such aspects of guided participation more apparent. However, we suggest that these features of guided participation may also be more common for US middle-class children than the explicit, didactic, selfconscious instructional interaction that has been the focus of research. The interdependence of children and their social partners in valued and routine cultural activities may be a fact of children's lives that accounts for children's rapid development as participants in the skills and understanding of their community, whether it involves learning to weave or to read, to take care of livestock or young children or homework.

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