

*Children's Development of Cultural Repertoires
through Participation in Everyday Routines and Practices*

Barbara Rogoff, Leslie Moore, Behnosh Najafi,
Amy Dexter, Maricela Correa-Chávez, & Jocelyn Solís

University of California, Santa Cruz

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Author Notes

Author Jocelyn Solís passed away June 24, 2004, having brightened the world with her wisdom, her strength, and her smile.

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Although culturally rooted community routines and practices are often overlooked, they are crucial contributors to human development. They provide standing patterns of engagement to cultural participants to build on in daily activities. Engagement with the traditions of previous generations permeates everyday life, often without people reflecting on their use, but yet with active participation.

This chapter discusses variation in the organization of children's involvement in cultural activities. In particular, we examine three widespread cultural traditions that organize children's learning and participation in cultural activities: intent community participation, assembly-line instruction, and guided repetition. We argue that investigating the organization of children's participation in routine activities offers a way to address the dynamic nature of *repertoires* of cultural practices — the formats of (inter)action with which individuals have experience and may take up, resist, and transform.

A focus on the cultural contributions that are central to daily routines and practices is distinct from approaches that equate culture with race or ethnicity. Clearly, cultural practices may be associated more with some such groups than with others, based on previous generations' histories as well as forced structural limitations. However, our interest is not in racial or ethnic categories, but rather in understanding the *cultural practices* in which children become facile, based on engagement in cultural traditions and institutions created by previous generations as well as their own.

A focus on the organization of children's participation in cultural practices offers, indeed requires, attention both to the guiding role of cultural traditions and to the active role of individuals themselves. We stress the dynamic nature of both individual participation and community traditions. People actively develop their individual histories, identifications, and resulting interests and familiarity with multiple cultural traditions, and the traditions themselves

change as successive generations adapt them to current circumstances.

The organization of practices and routines in which children participate and the ways their participation is supported by others are often ‘invisible’; that is, they are often not made explicit by or for community members. For example, the lives of current-day North American children are regularly channeled in routine ways by institutionalized aspects of everyday life, such as the usual segregation of children from opportunities to observe or participate in their community’s range of mature work, and by compulsory involvement in schooling, providing exercises to introduce children to the skills and practices of their community. Some other communities provide children with much more extensive opportunities to learn through observing and contributing to ongoing community endeavors (Rogoff, 2003). Although few North American researchers, policymakers, or parents take note of these routine organizers of childhood, these play a powerful role in creating the settings that children frequent, their roles, and the routine activities in which children engage.

Relatedly, many cultural practices on a more intimate scale may be taken for granted but serve to organize the life experience of children. For middle-class North American children, for example, these often include routine involvement in bedtime stories, sleeping in a separate room, following local gender role expectations, and being encouraged to structure show-and-tell narratives in a particular manner and regulate peer access to possessions by taking turns.

Tacit, routine expectations of everyday life are likely to be among the most powerful cultural experiences — especially *because* they are expected and unexamined by most participants (Rogoff, 2003). As Bourdieu (1977) suggested, through experience with one’s environment and routine performances, strong dispositions develop that may be beyond the grasp of consciousness, relatively impervious to efforts to change them or even to articulate them.

Tacit lessons from participation in everyday life about who may participate, how, and when may be difficult for participants to identify, but such unspoken community expectations and values are a key part of how people organize their interactions. As Rheingold (1985, p. 5) argued, development is a process of becoming familiar with the environment and with one's interactions with the worlds it involves; each new skill becomes 'submerged in consciousness,' with the effort to achieve it forgotten as it becomes familiar.

Further, children develop fluency in multiple forms of participation, based on the multiple traditions in which they routinely engage. We argue that as children move across settings that involve different formats for participation, they actively engage in variable ways relating to their own *repertoire of practice*. This concept helps to focus on children's own agency in selecting, rejecting, and transforming multiple ways of engaging in the world. In the process, children in turn contribute to the formation of the routines and practices available to the next generation.

Our interest in the organization of children's cultural participation and their repertoires of practice relates to some complementary approaches that focus on the cultural organization of children's everyday lives in terms of the settings and goals of childrearing.

Cultural Aspects of Children's Everyday Settings

Several lines of scholarship have focused on the socialization of children into the ways of their communities by examining the niches and activity settings of children's lives. These approaches, and our own, have been heavily influenced by the work of Beatrice Whiting, who focused on the role of children's settings and the company they keep:

Whether it is caring for an infant sibling, working around the house in the company of adult females, working on the farm with adults and siblings, playing outside with neighborhood children, hunting with adult males, or attending school with age mates, the daily assignment of a child to one or another of these settings has important consequences on the development

of habits of interpersonal behavior, consequences that may not be recognized by the socializers who make the assignments. (1980, p. 111)

The cast of characters and scenario are closely related to the activities in which children routinely engage. For example, Whiting and Whiting (1975) found, in six cultural communities, that heavy involvement with agetates was associated with children's aggressiveness and egoism, whereas heavy involvement with younger children was associated with nurturance. The six communities they studied differed greatly in the frequency with which children inhabited settings involving agetates (e.g., in school) versus younger children (e.g., in communities where child caregiving was routine).

Subsequent work has elaborated these ecological ideas (along with others, such as those of Barker & Wright, 1954) to examine the arrangements that characterize children's opportunities to learn in different communities. Several scholars use the idea of *activity settings* or *ecocultural niches*, which include the personnel who engage with children, motivations of the actors in the setting, cultural scripts that guide conduct, tasks and routine activities, and cultural goals and beliefs (Tharp & Gallimore, 1988; Weisner, 1984; Weisner, Gallimore, & Jordan, 1988). Relatedly, the ideas of *developmental niche* or *cognitive developmental niche* focus on the physical and social settings in which children develop; the customs of childrearing that parents negotiate; and scripts, routines, and rituals that instantiate cultural goals and values in socially organized ways, along with material and symbolic tools used to achieve cultural goals (Gauvain, 1995; Harkness & Super, 1992, 2002). Gauvain pointed out that what children gain from particular experiences is strengthened by a commonality or redundancy that is "largely rooted in culture" (2004, p.13).

The focus on scripts in these approaches, which connects with our emphasis on the organization of children's participation, builds on Bateson's (1958) notion of scripts as cultural

expectations of how events are organized within a particular community. Schank and Abelson (1977) referred to scripts as being specific to a situation or context and involving several 'players' who share an understanding of a sequence of events, such as the way people behave in a movie theater, at dinner, or at a bank. Use and understanding of such scripts for cultural routines appears in early childhood (Nelson & Gruendel, 1988).

The scripts involved in children's settings are closely related to cultural goals that guide parents' childrearing practices and children's experiences (Goodnow, 1992; Harkness & Super, 1992, 2002). LeVine (1980) proposed that parents in differing circumstances prioritize distinct goals, ranging from the physical survival and health of their children, to their economic security, to achieving locally valued goals such as social status, religious piety, and self-actualization. For example, Gusii (Kenyan) mothers engaged in a period of intensive protective care, reflecting their primary goal of assuring their infants' survival in a community where infant mortality was high (LeVine et al., 1994). In contrast, mothers in London, with far less reason to be worried about their infants' survival, were greatly concerned with preparing their infants for school and engaged extensively in pedagogical games and lessons.

Although parents' goals and practices modify with changing circumstances, such as immigration (Rosenthal & Roer-Strier, 2001), they often do not change as rapidly as the circumstances do. LeVine (1980) suggested that childrearing practices are solutions to problems of rearing children that parents inherit from the previous generation, whose immediate circumstances are likely to have differed in some ways. Thus, cultural variations in childrearing practices and children's routines are intimately tied to the histories of communities in which families participate. Our chapter elaborates on the organization of children's participation in

terms of how children engage in the culturally and historically developed routines and practices of their communities.

The Organization of Participation

We argue that understanding children's development requires attention to how they become familiar with particular ways of organizing their involvement in the routine activities of their lives. Such organization ranges in 'grain size' from the broad organization of their daily routines to the organization of specific activities and moment-by-moment interactions. Broad traditions organize children's opportunities to learn in generally recognizable formats — such as children's involvement in formal Western schooling of the late 1900s, indigenous children's traditional learning through involvement in community activities, and children's religious training in catechism or Koranic schooling.

Broad arrangements for children's learning are themselves routinely composed of particular formats that organize a particular activity or moment-by-moment interaction. For example, Western schooling frequently employs a format in which the teacher asks questions to which she already knows the answer, a student or the class responds briefly, and the teacher evaluates the response and goes on to another known-answer question (Mehan, 1979). This format is seldom used outside of school, especially in communities in which schooling is not prevalent. (As we will describe later, familiarity with this format is usually part of the repertoire of children whose families have participated in Western schooling for generations.)

The formats organizing children's participation in cultural activities provide standing patterns of engagement — cultural infrastructures of everyday life. Such formats are key among the resources humans draw upon to coordinate their behavior in social encounters. Social scientists have examined how participation in social encounters is organized, examining

practices ranging from those that characterize a whole activity, such as doing a seminar or preparing onions for market, to a single moment in an encounter, such as a three-turn known-answer question with teacher initiation, student response, and teacher evaluation.

Anthropologists, sociologists, and linguists have provided valuable approaches to the study of social organization of peoples' participation in cultural activities. Sociologist Erving Goffman (1979, 1981) inspired several lines of scholarship that address how humans organize social interaction. He introduced the concepts of *participation status*, the particular relation that any one person has with what is being said (e.g., animator, author, principal), and *participation framework*, the overall configuration of the collection of individuals' participation statuses at a given time in a particular situation. Marjorie Goodwin (1990) has since expanded on Goffman's work with her concept of *participant framework*.

Susan Philips, a student of Goffman, introduced the concept of *participant structure* (1983, 2001), defining it as a particular type of encounter or structural arrangement of interaction. Based on her research in a Native American community and the school attended by its children, Philips proposed four basic participant structures in classroom interaction, which vary in the number of students interacting with a teacher, how children's attention is organized, and how turns at talk are allocated and regulated (the whole class interacts with a teacher; small group format; teacher-student one-on-one format; and individual desk work).

Philips examined mismatches between the participant structures prevalent in the children's homes and their school. She noted that the children did not readily conform to Anglo norms for classroom participation, being accustomed to a high degree of autonomy in determining when or if they will speak and to organizing their peer group activities such that individuals were rarely singled out. Warm Springs Indian children were less willing than their

Anglo peers to speak alone in front of the class or to speak at moments determined by the teacher, both of which were key practices within the classroom. Philips' study has influenced much of the subsequent research into the nature and impact of home-school mismatches with regards to the organization of participation.

Building on work by Goffman and Philips, Fred Erickson (1982) teased apart task structure and interactional/ communicative norms of the *social participation structure*. Social participation structure is the allocation of interactional rights and obligations of participants that shape the discourse; that is, what speaking and listening behaviors are required of or allowed for different participants, and what are the canonical patterns of turn taking.

Attention to the organization of participation is especially productive for expanding understanding of cultural contributions to human development because it brings a focus on individual agency together with a focus on community traditions. Individuals are active in becoming involved in and making use of community traditions (or bucking or changing them). At the same time, the formats available to organize individuals' roles and connect them with community traditions and related institutions contribute to the ongoing organization of individuals' participation. Thus, focusing on the organization of participation helps us see the mutually constituting nature of individual, interpersonal, and community contributions to the everyday lives and learning of children. The focus on standing patterns of action and interaction helps to underline the dynamic nature of both individual and community processes.

Research on the organization of participation provides a tool for empirical work on cultural variation in how adults and children structure and coordinate their participation in shared endeavors. For example, the use of known-answer questions is common and familiar in some communities but unfamiliar in others; in some communities learning through observation and

'eavesdropping' are especially important whereas in other communities verbal explanations seem to take precedence; teasing exchanges are valued tools of socialization and humor in some communities whereas in others they are regarded as hostile forms of interaction; some communities favor multiparty engagements over dyadic or solo ones and vice versa (Rogoff, 2003). The unspoken 'rules' or 'grammars' of interaction vary across cultural communities in somewhat systematic ways (Kendon, 1990; Heath, 1986; Hutchins & Palen, 1997).

In the next section we examine such variations as they contribute to three broad multidimensional traditions of learning practices: *intent community participation*, in which children have access to observe and begin to contribute to ongoing endeavors of their community; *assembly-line instruction*, in which teaching is organized by experts around specialized exercises to introduce children to the skills and practices of their community without allowing or necessarily anticipating actual productive involvement; and *guided repetition*, in which novices learn by observing, imitating, and rehearsing models presented by experts. After examining these three historical traditions organizing learning, we discuss how children develop their repertoires of multiple practices with which they are somewhat familiar and fluent.

Three Traditions of Learning

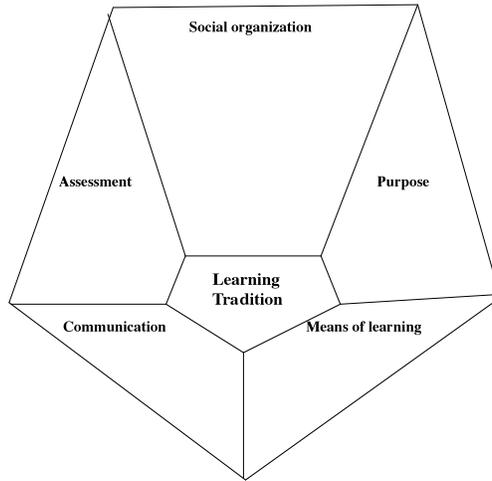
A recent article by several of us delineated features of two widespread cultural traditions of learning practices, which we called intent participation and assembly-line instruction (Rogoff, Paradise, Mejía Arauz, Correa-Chávez, & Angelillo, 2003). We defined these using an image of prisms in order to emphasize the integration and coherence of the multidimensional features of these culturally and historically developed traditions -- features that we displayed on the facets of the prisms. The traditions each have an internal 'logic' or 'grammar' (usually not articulated or perhaps even noticed by those involved in the practice) that make them coherent fields of practice.

Here, we present revised versions of the prisms from Rogoff et al. (2003). One important revision is a change of name: We now refer to intent *community* participation in order to draw attention to the cultural, collective, historical nature of this learning tradition, to try to avoid it being interpreted simply in terms of individual behavior or interpersonal interaction. We consider the current versions of the prisms to still be works-in-progress. For example, the facets that we show are not necessarily the only relevant ones — more facets/features could be added — and the articulation of the features that we include undoubtedly needs further revision.¹

The prisms represent ‘pure’ forms that define constellations of features that we argue fit together as whole cultural traditions. In life, however, there are often mixtures or resemblances of different traditions, not just pure forms. Even in efforts to follow a ‘pure’ tradition, everyday activity involves ‘seepage’ in practice. (Indeed, this seepage may be a strength allowing for adaptation of the tradition to circumstances or supporting transformation.) In addition, the generic forms portrayed in the prisms vary in specific characteristics when instantiated within a particular community or institution, at the same time as fitting the generic form of the prism.

The facets of each prism follow a standard template, to encourage analysis of the interdependent features of each prism along similar lines, and to offer a template to others for analyzing other traditions of learning besides those we examine. Here is the template:

¹ We are extremely grateful for the critique and suggestions of colleagues who attended two UC Presidential Workshops on intent participation.



Because the prisms articulate *integrated* features of whole historically developed cultural learning traditions, the facets form a constellation of features to be considered as a whole. Taken singly, a particular facet/feature does not define a learning tradition; a particular facet/feature is likely to fit with a number of distinct learning traditions. For example, one feature of the intent community participation tradition involves learning through keen attention during participation in shared endeavors. But by itself, learning through keen attention does not define the tradition of intent community participation; it may fit several learning traditions. That is, attentiveness does not necessarily indicate that what is going on fits with the intent community participation tradition — the other facets also need to fit, to make the constellation of the whole. Intent community participation also necessarily involves other features, including learners’ access to observe the valued community activity in question, with ongoing or anticipated participation, with learning focused on becoming able to contribute to the endeavor.

Hence, to investigate a learning tradition, one cannot simply glance at one or two features of a scenario to see if the moment fits with a facet or two of a particular learning tradition. A more global analysis of an event is required to determine whether all the facets of a learning

tradition are present. The prisms thus do not serve as coding schemes for examining brief moments of interaction. (However, more global coding can be done. For a global coding scheme examining 20- to 40-minute interactions for their fit with a multidimensional constellation, see Matusov and Rogoff's [2002] study of which philosophy-in-action was used by adults interacting with small groups of children.)

In the remainder of this section, we examine three cultural learning traditions that have widespread use. We begin with the two that were described by Rogoff et al. (2003) — intent participation and assembly-line instruction — adding important clarifying revisions, and then we examine the cultural tradition of learning by guided repetition.

Intent Community Participation

Intent community participation is a widely practiced and longstanding tradition in which people learn by actively observing and “listening-in” during ongoing community activities and contributing when ready, to activities as varied as weaving, conversing, reading, using statistics, or programming computers.

Intent community participation is especially prevalent in some communities in which children are routinely included in the range of mature endeavors of daily community life. In other communities, being excluded from many mature settings makes it difficult for children to observe and participate in the full range of economic and social activities (Morelli, Rogoff, & Angelillo, 2003; Rogoff, Mistry, Göncü, & Mosier, 1993; Whiting & Whiting, 1975).

If children are integrated in a wide range of community settings, they are able to observe and listen in on ongoing activities as *legitimate peripheral participants* (Lave & Wenger, 1991). For example, children learned through eavesdropping in an African-American community where toddlers participated in daily community events and spent hours quietly listening to adults

converse (Ward, 1971). Inuit men of Arctic Quebec reported that as boys, they learned to hunt



from just watching the men, and learned vocabulary and many other things by listening to stories that were not intended for them (Crago, 1992).

In communities in which they have access to learning by observing from the periphery, children may also learn as they function as full participants in important endeavors. They can begin to “pitch in,” contributing to their families’ social and economic lives from a young age

(Orellana, 2001; Paradise, 1987; Rogoff, 2003). For example, in an East African farming community, 3-4-year-old children spent 25-35% of their time doing chores, compared with 0-1% for middle-class US children of the same ages (Harkness & Super, 1992).

Jordan (1989) describes how Yucatecan Mayan girls whose mothers and grandmothers are midwives absorb the essence of midwifery practice as well as specific knowledge simply in the process of growing up. They are surrounded by the routines and practices, and pitch in as they become able to assist.

They know what the life of a midwife is like (for example, that she needs to go out at all hours of the day or night), what kinds of stories the women and men who come to consult her tell, what kinds of herbs and other remedies need to be collected, and the like. As young children they might be sitting quietly in a corner as their mother administers a prenatal massage; they would hear stories of difficult cases, of miraculous outcomes, and the like. As they grow older, they may be passing messages, running errands, getting needed supplies. A young girl might be present as her mother stops for a postpartum visit after the daily shopping trip to the market.

Eventually, after she has had a child herself, she might come along to a birth, perhaps because her ailing grandmother needs someone to walk with, and thus find herself doing for the woman in labor what other women had done for her when she gave birth; that is, she may take a turn with the other women in the hut at supporting the laboring woman, holding her on her lap, breathing and pushing with her. After the baby is born, she may help with the clean-up and if the midwife doesn't have time to look in on mother and baby, she may do so and report on their condition.... Her mentor sees their association primarily as one that is of some use to her ("Rosa already knows how to do a massage, so I can send her if I am too busy")....

In societies where [this sort of] apprenticeship learning is the routine unmarked way of knowledge acquisition, it is also the case that there is little differentiation between work and play. Children, and old people, do partial or somewhat defective jobs which are, however, appreciated for whatever use value they may have. This use value is keenly appreciated both by children and by adults, and children will generally, on their own, prefer activities that

have societal value. Thus children in Yucatan prefer taking care of real babies to playing with dolls. (p. 932)

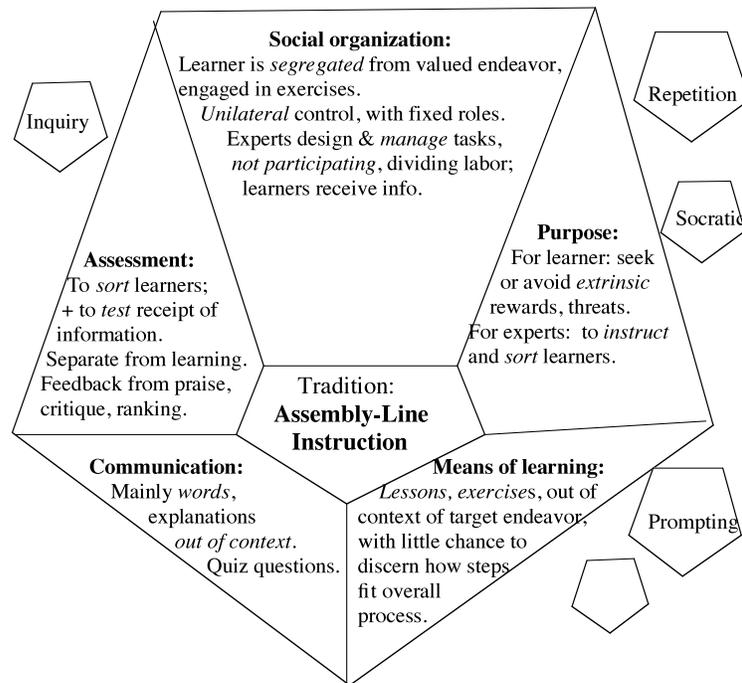
Although the range of opportunities for children to be involved in ongoing mature activities tends to be limited in middle-class settings (Morelli et al., 2003), intent community participation also occurs in such communities. Most importantly, children's impressive learning of their first language occurs through opportunities to observe and begin to pitch in to shared communicative endeavors where the aim is getting things accomplished with words (beyond the language lessons that some children receive). Young children are also generally attracted to engage in the activities of those around them. For example, middle-class toddlers are attracted to objects used by adults and tend to carry out markedly similar actions on them, and they may spontaneously help their parents or a stranger in household chores (Eckerman, Whatley, & McGhee, 1979; Hay, Murray, Cecire, & Nash, 1985; Rheingold, 1982). Middle-class children often learn to use computers by engaging with other children and adults who use them in ways that are consistent with intent community participation.

Central to the constellation of cultural practices related to intent community participation is 'being there' during valued activities and having opportunities to contribute. U.S. children whose parents work at home are often involved in their parents' work, in a progression from watching, to carrying out simple tasks, to giving regular assistance, to regular work (Beach, 1988). Likewise, if given the opportunity to participate, children may become part of community political action. For example, one of us (JS) observed that children in undocumented Mexican immigrant families in New York, even very young ones, became involved in political action as they accompanied parents to immigrants' rights rallies. The children publicly protested and enacted a form of political participation, learning by observing (rather than through direct, explicit discussion with parents) that rights and fair treatment are to be demanded in a society

where injustice is real and part of everyday life.

When learners become involved in activities in the intent community participation tradition, engagement with more experienced community members is coordinated in a reciprocal (though usually asymmetrical) manner, with mutual responsibility and respect for each others' contributions. Roles are taken up with flexibility, such that people can anticipate playing other roles in the activity at other times (such as aiding others in learning). Flexibility also occurs in the means of contribution, as participants have some room to maneuver within their role. They are expected to contribute as they are able and tend not to be micromanaged in specific actions. People (including newcomers to an activity) are expected to contribute and coordinate around shared family and community endeavors like members of an orchestra.

Assembly-Line Instruction



Assembly-line instruction involves transmission of information from experts, in specialized exercises outside the context of productive, purposive activity. It is common in many schools and middle-class family interactions, in communities where children are routinely segregated from many mature settings. Of course, assembly-line instruction is not the only way that schooling and middle-class parent-child interactions are organized. For example, some schools operate according to philosophies related to intent community participation (Rogoff, Goodman Turkkanis, & Bartlett, 2001; Sato, 1996).

However, assumptions and practices regarding learning in middle-class communities (at home as well as at school, and among developmental psychologists) are heavily influenced by the centrality of particular school formats that became prevalent when mass, compulsory schooling became widespread, about a century ago. School-based assembly-line instruction was explicitly modeled on the organization of factories, with learners (and teachers too, often) treated as part of a mechanism designed by administrators or consultants for bureaucratic efficiency (Callahan, 1962). This tradition is based on a mechanical metaphor, with experts inserting information into children, as raw materials, and sorting them in terms of their quality and the extent to which they have received the information.

An example of bureaucratic control of learners is the common “switchboard participant structure” (Philips, 1983) in which teachers take a speaking turn between each child turn and decide which children contribute to class activities. Echoes of this format can also be seen in dinner conversations of Caucasian families in Hawaii, where children raised their hand for a turn and parents managed the children’s turns to talk and encouraged the children to give accounts of events of their day in a style that resembles school forms of reporting (Martini, 1995, 1996).

Middle-class European American families have extensive experience with the formats of formal schooling, usually over several generations, and they often engage young children in a variety of practices related to school formats. For example, they frequently engage their children in lessons and school-like discourse formats including known-answer questions. Rather than children joining adults in community work and social activities, middle-class adults often engage in children’s play and child-focused exercises in which adults manage children’s attention and help them practice school-relevant skills in play (Blount, 1972; Haight, 1991; Harkness, 1977; Heath, 1983; Martini, 1995; Morelli et al., 2003; Schieffelin & Ochs, 1986).

For example, middle-class mothers in the US and Turkey more often engaged their toddlers in language lessons and school-like quizzes about properties of objects than did mothers in a tribal community in India and a Mayan community where schooling was not prevalent (Rogoff, Mistry, Göncü & Mosier, 1993). Similarly, middle-class European American 3-year-olds more often engaged with adults in scholastic play (like the alphabet song) and in free-standing conversations with adults on child-related topics than did 3-year-olds in a foraging community in the Democratic Republic of Congo and an agricultural community in Guatemala, where children had more opportunity to observe adult work and frequently emulated these themes in their play (Morellet al., 2003). The specialized child-focused formats and exercises that young middle-class children experience can be seen as a way to aid them in assembling skills for later entry in mature activities from which they are often excluded as children.

As shown in the prism, the social organization of assembly-line instruction involves segregating learners from ongoing community activities, and instead managing them in exercises designed to induce transmission of information, exercises that seldom yield a useful product or outcome for the larger community. Experts/teachers direct learners in a unilateral manner without participating in the same activity, and without flexibility in the management/managed roles. Understanding how a particular step fits an overall process or purpose are not regarded as necessary to learning; the mechanical exercise of going through the steps is the focus. The learners' involvement is managed with external inducements (such as praise, grades, and threats), with assessments aiming to determine both the overall quality of the raw materials and of the transmission of information (in assessments of IQ as well as of extent of receipt of the curriculum 'delivered'). Communication is heavily reliant on words (often in specialized formats such as known-answer questions), in the absence of shared productive endeavors.

The contrast between assembly-line instruction and intent community participation is particularly clear in deHaan's (2001) study of Mazahua (indigenous Mexican) children engaged in a building task with either their parents or a nonMazahua teacher. The parents treated the children as responsible contributors to a shared endeavor, in which children coordinated with the parents and sometimes led the effort. Children were expected to learn by watching the parent's contribution while they participated and to take on more responsibility as the joint activity proceeded, but they were not forced to. In contrast, when the children worked with nonMazahua teachers, the teacher held the initiative and expected the child to perform the task under the teacher's directions. If the children made suggestions, these were evaluated by the teachers as a test of the children's knowledge, not treated as a contribution to a task that needed to be done.

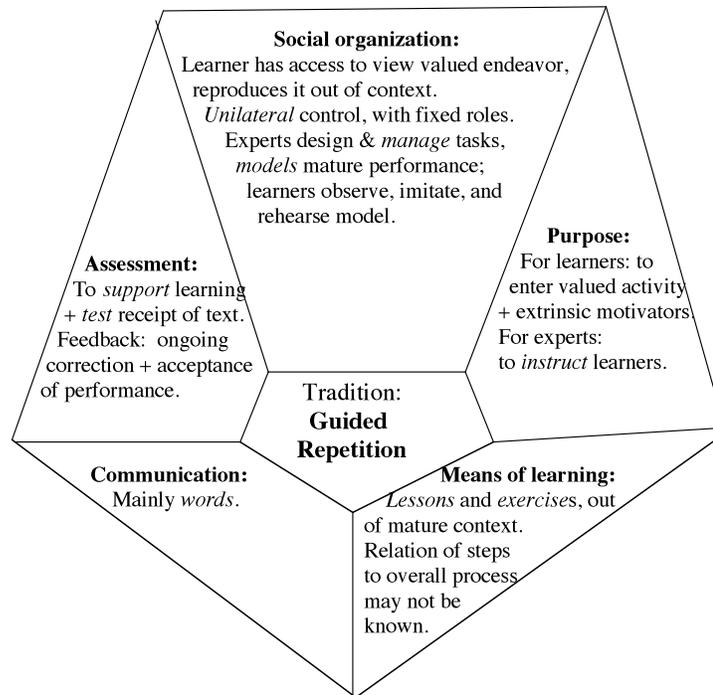
The use of particular cultural traditions for organizing learning (such as assembly-line instruction and intent community participation) is dynamic, not fixed and stable. People who have been raised mostly within one tradition of learning may switch their approach to another when they have experience in a tradition new to them (or they may blend or otherwise revise the traditions, or resist them). For example, schooled mothers from communities that are newly adopting Western schooling more often interact with children in some school-like ways — including praise, lessons, and assignment of divided tasks — than mothers with little or no schooling from the same communities (Chavajay & Rogoff, 2002; Rabain-Jamin, 1989; Richman, Miller, & LeVine, 1992; Rogoff et al., 1993). Similarly, middle-class parent volunteers in a collaborative school were more likely to engage with children in ways that fit with intent community participation than parents with less such experience, even though the prior schooling of almost all the parents was similar to assembly-line instruction (Matusov & Rogoff, 2003; Rogoff et al., 2001).

The processes of intent community participation and assembly-line instruction are not specific to particular types of activities or ‘subject’ matter (such as practical vs. theoretical endeavors, or ‘concrete’ vs. ‘abstract’ information). For example, learning statistics can occur through intent community participation as one learns how to use statistics to carry out ongoing research, or using an assembly-line instruction model in a class where the material is studied in isolation from its use, without any involvement in research. Likewise, intent community participation was very effective for traditional Maori (New Zealand) children’s learning of both abstract spiritual knowledge and practical skills (Metge, 1984).

Several other prisms are indicated in the diagram showing the prism for assembly-line instruction, to emphasize that there are a number of cultural learning traditions that bear greater understanding, so that we can consider alternative arrangements for learning. One of the other prisms is identified as repetition.

Guided Repetition

Guided repetition (or ‘recitation’) is a tradition of teaching and learning that involves modeling by the expert and imitation of the model by a novice, with memorization through rehearsal and performance by the novice (Moore, 2004b). The expert supervises the novice in each phase and may provide assistance, evaluation, and/or correction as the novice attempts to master the new skill. In communities around the globe, guided repetition is used to teach and learn a wide range of skills, including music, athletics, and crafts. Perhaps the most common use of guided repetition is in the teaching of texts (oral or written).



Since it fell out of favor in the late 19th and early 20th centuries with the advance of the progressive education movement, guided repetition has been disparaged and dismissed by most Western educators and researchers (Hori, 1996). It is now widely believed – but not proven – to have a negative influence on children’s cognitive abilities, fostering the development of memory skills at the expense of so-called higher cognitive skills such as logical and creative thinking (Wagner, 1983). However, guided repetition continues to be part of the educational experience of millions of children around the world, in both religious and secular contexts. Despite its long history, global prevalence, and characterization by Western educators as a problem to be remedied, this tradition has received very little analytic attention and is poorly understood. (Exceptions include work by Scribner & Cole, 1981a,b, and Wagner, 1983, 1993.)

Guided repetition is historically rooted in the teaching of sacred texts. In the religions that have promoted literacy – including Judaism, Christianity, Islam, Hinduism, Buddhism, and Confucianism – traditional pedagogy places “a strong emphasis on verbatim oral mastery of a body of essential written teachings and ritual” (p. 112, Wagner, 1983). In many communities, learning sacred texts by heart is the path into literacy and verbatim recitation the preferred way to attain and display knowledge (e.g., Ariès, 1965; Heath, 1983; Nash, 1968; Tambiah, 1968).

The memorization of a fixed body of knowledge may serve as the basis for application to *new* contexts and materials and the development of new understanding. For example, some Fulbe who have memorized the Koran build upon this foundation, developing a high degree of competence in Arabic as a second language (Moore, 2004b). Hori (1996) argued that the formalism of rote learning in a Zen monastery is an important route to insight. He argued that this process resembles the process of learning propositional logic in a university philosophy class. He noticed that the students who could solve logic problems had memorized the basic transformation formulas and as a result they could “just see” common factors to cancel out in the equations or “just see” logical equivalences. The students who had not memorized the formulas were mystified by the problems, trying to reason their way through them without the logical insight that the others had developed through rote memorization.

Built on the foundations of religious education, secular schooling also often uses guided repetition. Repetition and memorization figure prominently in descriptions of East Asian educational practice and the learning styles of Asian students (Biggs, 1996; Ho, 1994; Li, in press; On, 1996; Schneider, Hieshima, Lee, & Plank, 1994). Western education has long emphasized memorization, too. For centuries, the recitation and memorization of Greek and Latin texts constituted a large part of curricula in European schools (Carruthers, 1992;

Cubberley, 1922; Nash, 1968). Until the late 1800s, European and North American pedagogical practices emphasized textbook memorization (Ariès, 1965; Cubberley, 1922). Currently in the U.S., there is growing interest in Classical (Christian) Education, which emphasizes memorization of a body of knowledge in the early years of education, leaving analysis and discussion to later stages (e.g., Bluedorn & Bluedorn, 2000; Wilson, 1991, 2003).

As in assembly-line instruction, roles within guided repetition are generally unilateral and fixed. The expert's responsibilities are to model the text or skill correctly and in suitable increments and to monitor, correct, and evaluate the learner as she attempts to imitate, rehearse, and master it. In addition to tests for mastery, assessment is often ongoing, with errors being corrected immediately or soon after they are committed in order to support learning.

Guided repetition activities are specialized and learner-focused lessons, but unlike assembly-line instruction, they do not necessarily occur in settings that are removed from adult activities. In many communities, religious instruction takes place at the temple or mosque, where learners may observe more competent community members as they recite sacred texts in the context of daily ritual. Moreover, learners may "apply" lessons in their own emergent ritual practice. Thus, learners may understand the purpose and importance of what they are learning. (Such understanding, however, may not be regarded as necessary to learning.)

As noted above for the two other traditions, the use of guided repetition is dynamic. In a study of language socialization in an urban Fulbe community in northern Cameroon, Moore (2004a) observed changes in how guided repetition was structured and the domains in which it was used. In the Koranic schools of this community, children have long been taught one-on-one to recite, read, and write the Koran. As Fulbe participation in public schooling has increased, however, the public school practice of collective instruction (in addition to individual instruction)

has come to be used in a growing number of Koranic schools. Guided repetition has also seeped from school into homes. Whereas Fulbe children once learned folktales only through intent community participation, many now learn through guided repetition (Moore, in press).

Although certain traditions and practices may be more prevalent in a given community, people generally participate in a variety of traditions and practices as they engage in the different activities that constitute their daily lives. Institutions and individuals develop *repertoires* of practices that may be culturally distinct in their roots but spread with contact among communities and individuals. Repertoires reflect both the agency of individuals who build them and the cultural/historical organization of routines and practices.

Repertoires of Practice

According to Webster, a *repertoire* is the set of operas, songs, and parts that can readily be performed by members of a company because they have practiced or performed them many times. (The term is derived from the Latin, *to find again*.) We use the term *repertoire* to describe the variety of practices with which individuals are familiar, yielding a disposition to apply different formats under distinct circumstances. The idea of *repertoires of practice* addresses the fact that people engage in multiple traditions (Gutiérrez & Rogoff, 2003; Rogoff, 2003; Zentella, 1998). Through their lives and the different endeavors in which they engage, people develop fluency with a variety of formats for participation.

A number of scholars have made use of this concept (e.g., Davies & Harré, 1990; Elbers & De Haan, 2002; Erickson, 2004; Rogoff et al., 2003), which in some ways resembles Bourdieu's concept of *habitus* — “systems of durable, transposable *dispositions*” (1977, p. 72). In sociolinguistics, the term *repertoire* refers to the range of languages or varieties of a language available for use by a speaker, each of which enables her to perform a particular social role or

purpose. Gutiérrez, Baquedano-López, and Tejeda (1999) pointed out that the linguistic repertoires of students are tools for their participation and meaning-making in the classroom. Gutiérrez and Rogoff noted that children with differing experience with distinct cultural traditions vary in their repertoires

for engaging in discussions with authority figures, answering known-answer questions, analyzing word problems on the basis of counterfactual premises, seeking or avoiding being singled out for praise, spontaneously helping classmates, observing ongoing events without adult management, responding quickly or pondering ideas before volunteering their contributions, and many other approaches. (2003, p. 22)

People's repertoires of practice describe the formats they are likely to employ in upcoming situations, based on their own prior experience in similar settings. Repertoires of practice are highly constrained by people's opportunities and access to participate directly or vicariously in settings and activities where particular formats are employed. For example, children who are newcomers to classroom organization are less skilled in aligning their participation with the structure of lessons and the conversational formats employed in their classroom; at the end of the school year they are much more effective in following and using the structure of classroom formats, including instruction-response-evaluation sequences (Mehan, 1979). We could say that their repertoire comes to include some dexterity in participating in instruction-response-evaluation sequences, among other classroom formats. And in the next school year, they may be more likely to engage in this manner in another teacher's classroom.

Although people's readiness, efficiency, fluency, and dexterity in engaging in a particular practice depends on familiarity with the specific practice or similar ones, at the same time, the agency of individuals is key. Individuals choose (with or without reflection) among the formats

with which they are familiar and they may actively transform or reject engagement in particular formats as they navigate the different settings of their lives.

An example of children determining which approach to use from their repertoire can be seen in research on Pima Indian children's ways of speaking. In grades 1-3, their dialect was fairly similar to their teacher's standard dialect, but at grade 4 the children's way of speaking became increasingly similar to the local native dialect, despite the children's growing competence in expressing themselves with the standard dialect (Nelson-Barber, 1982, as cited in Delpit, 1990). This shift in language use may reflect the children's choice of what stance they would take regarding their community membership. Nelson-Barber speculated that the children's use of the local dialect over the standard dialect may have been an affirmation of their community membership, in response to the school's negative attitude toward their community.

Although people can be reflective on occasion about the ways in which they engage with others, this does not imply that they draw on their repertoires as stored menus to be called up; repertoires are a description for the sake of analysis. Thus, repertoires are not possessions of individuals (or communities) themselves; rather they are analytic tools to describe often-implicit patterns for the sake of reflection by researchers, practitioners, and other analysts (including individuals themselves at times).

The idea of repertoires of practice offers several benefits for the analysis of individual and group cultural patterns:

- It assists understanding of conflict among different communities' learning traditions;
- It helps to get beyond treating cultural variation in terms of ethnic stereotypes;
- It accommodates the fact that cultural routines and practices transform dynamically, as individuals and communities expand, prune, hybridize, and adapt their repertoires; and
- It aids in understanding the role of individual agency along with affordances and constraints supplied by prevalent cultural practices.

Distinct community traditions for supporting learning may conflict. Participants in an activity may vary in what they consider preferable or acceptable, based on differing repertoires of practice associated with their histories of involvement in distinct traditions of learning and the social identities or stances they associate with a given practice. This appears to be a common source of many minority students' difficulties in formal schooling. For example, when a Warm Springs Indian child turns her gaze down from her teacher's face in order to show respectful listening, her Anglo teacher is likely to read this as disrespect or inattentiveness (Philips 1983).

In discussing the juxtaposition of differently valued ways of learning, Jordan (1989) described the limited uptake of training efforts by Western medical personnel among Yucatecan (Mexican) Mayan midwives. The trainers' efforts resembled assembly-line instruction — involving didactic lectures emphasizing definitions — whereas the midwives' lifetime experience of learning involved the kind of intent community participation that Jordan (quoted above) described for girls learning midwifery by participating in the practices and skills in everyday life. Much of the training sessions provided by the Western medical personnel was like the following episode, in which a nurse asked the group of midwives “What is a family?”

This is a rhetorical question to which no answer is expected or offered, though nobody would doubt that midwives know what a family is. The nurse provides the answer: “A family is a group of people who live under the same roof and have as a common goal the desire for a better life.” Nurse writes definition on blackboard. There is little response from the audience. Most continue to stare vacantly. Nurse looks expectantly at them, strongly conveying the notion that the definition should be copied.... The midwives are told that they should know [the definition] because it will be on the final test. Then we go on to the next definition which is concerned with the question: “What is a home visit?” (p. 927)

Jordan pointed out that in the midwives' familiar way of learning, talk is used to extend communication that occurs in shared activity, rather than being the sole means of instruction.

Talk has an important role in the context of practice, as midwives and birth assistants discuss diagnoses and consider different courses of action, drawing on their accounts of previous cases and collaboratively considering their applicability to difficulties in the current case.

Talk in such situations is always closely tied to, and supportive of, action. In the traditional system, to know something is to know *how to do it*, and only derivatively to know *how to talk about it*. Talk is never primary.... There is some evidence that information learned in the verbal mode is used again in the verbal mode, in talk, and is unlikely to be translated into other behavior. What is generated, then, is a new way of talking, rather than a new way of doing.... [The midwives] learned new ways of talking, new ways of legitimizing themselves, new ways of presenting themselves as being in league with the powerful system [the Western medical establishment], which, however, had little impact on their daily practice....

For example, when the staff asked the midwives if any of them did external cephalic versions or engaged in the traditional practice of cauterizing the umbilical stump of the newborn, none of them admitted to doing it. [These traditional Mayan skills were looked down on at the time by Western medicine; in the meantime, their value has become recognized. The midwives] all were able to say that in case of breech presentation you refer the woman to the hospital and for treatment of the cord you use alcohol and merthiolate. But when we were alone, swinging in our hammocks at night in the dormitory, and I intimated that I actually knew how to do those things [having learned them from a Mayan midwife] and thought they were good for mother and baby, every one of them admitted that she engaged in those practices routinely. As a matter of fact, a lively discussion and exchange of information about specific techniques ensued. I would suggest, then that current teaching methods produce only minimal changes in the behavior of trainees, while, at the same time, providing new resources for *talking about* what they do. (pp. 928-929)

The distinctions drawn by Jordan in her participant observation of the midwives' training courses may well apply when individuals whose repertoires are based on one tradition for learning (such as intent community participation) are thrown into settings based on another (such as assembly-line instruction, or vice versa). In addition, the unilateral nature of assembly-line

instruction is part of the problem that prevented the medical staff from detecting that their means of instruction was not connecting with the backgrounds of the trainees. The unilateral nature of assembly-line instruction is problematic even for many students who function well within it. For example, extensive research on university instruction, especially in the natural sciences, indicates that strong students often finish a course able to answer exam questions fluently but maintaining their initial ideas about the phenomena ('misconceptions' from the instructors' perspective). A rigid form of instruction such as this is particularly problematic for students who are unfamiliar with its rules and how to 'play the game,' and whose background knowledge of the subject matter may be quite different than those of the instructor.

Although our focus in this chapter has been on how individuals change their repertoires, it is important to note that institutions can also (and should) be flexible in the traditions of learning that they employ. School reform efforts generally attempt to move away from assembly-line instruction towards ways of learning that involve active student involvement and sensitivity to the students' background knowledge (Bransford, Brown, & Cocking et al., 1999). However, the familiarity of the routines and practices of assembly-line instruction among schooled adults make it difficult to improve schools. For the most part, traditions of learning are unreflectively used by practitioners, based on their own familiarity with particular traditions and practices (Matusov & Rogoff, 2003). School reform efforts seldom pay sufficient attention to the need to address the repertoires of adults themselves, which often require opportunities to *participate* in the new practices in order to make the paradigm shift required for them to develop new ways of assisting others' learning. The idea of repertoires of practice helps make sense of the distinct customary ways of acting of people from distinct backgrounds, without assuming that these ways of acting are an inherent characteristic of the individuals or backgrounds.

Getting beyond ethnic stereotypes. In social science research (and in national censuses), individuals' cultural heritage has often been treated as a single social address. In contrast, we argue that conceptions of individuals' cultural backgrounds be tied to the cultural practices in which they have participated (Gutiérrez & Rogoff, 2003; Rogoff & Angelillo, 2002). National or ethnic labels such as 'French' or 'Mexican' or hybrid forms such as African American or European American are useful, but we suggest that they be treated as indices of likely common experience with particular cultural/historical practices, rather than simply as a marker of ancestry.

The idea of repertoires of practice addresses the fact that most people have some history of participation (in varied forms, including resistance) in the practices of several cultural communities and institutions. This concept contrasts with a common approach in which a person identified with a given ethnic group is assumed to have certain "traits" that are considered "typical" of that group, homogenous, and stable across time and circumstances. As Gutiérrez and Rogoff (2003) suggested, the concept of repertoire of practice enables us to talk about probable patterns of engagement based on historical experience, rather than stereotyping members of a group in a timeless, uniform fashion.

The idea of repertoires of practice shifts from thinking of culture as a stable, singular characteristic of individuals to focusing on people's *experience* with cultural practices, through their life history and community history. These histories contribute to individuals' (and communities') proclivities to do things in certain ways — ways that are dynamic, potentially changing with generations and contact with different ways.

Repertoires often change in dynamic individual and community processes. Individuals (and communities) may expand, refine, prune, and transform their repertoires of practices. Further, many practices are *hybrid* forms (Rogoff, 2003). Gutiérrez and Rogoff noted,

Of course, there are regularities in the ways that cultural groups participate in everyday practices of their respective communities. However, the relatively stable characteristics of these environments are in constant tension with the emergent goals and practices participants construct, which stretch and change over time and with other constraints. This conflict and tension contribute to the variation and ongoing change in an individual's and a community's practices. (p. 21, 2003)

Hybridity can be viewed as a process of utilizing particular interactional formats as cultural tools for accomplishing participants' current purposes. For example, faced with home/school discontinuities, children (and parents) often adjust their ways of participating; they may adopt school ways, or they may develop hybrid forms that allow children to engage in the classroom in ways that are new for both the children and the school.

The process of hybridization is an important contributor to the continually changing repertoires of individuals and communities, especially when individuals and communities with different traditions interact. Over generations, Guatemalan Mayan mothers with extensive exposure to schooling seem to carry their experience with school formats to their interactions with their own children, which resemble the interactions of highly schooled, middle class European-American mothers (Chavajay & Rogoff, 2002; Rogoff et al., 1993). Conversely, teachers from Native American communities sometimes make use of local ways of organizing social interaction (Erickson & Mohatt, 1982; Lipka, 1991; van Ness, 1981). Immigrant Latino parents in the US modified their ideas about literacy and their reading practices with their children through contact with models of literacy embodied in the US school routines of their children (Reese & Gallimore, 2000). "Hybrid language practices" enable linguistically and ethnically diverse children and teachers to reorganize classroom functioning, creating a learning context where "no single language or register is privileged, and the larger linguistic repertoires of participants become tools for participating and making meaning in (a) new collaborative

activity” (Gutiérrez, Baquedano-López, & Tejeda, 1999, p. 293).

The role of individual agency: Fitting approaches to circumstances. The idea of repertoires of practice helps relate individual agency to contextual processes and how people move between different situations. Children (and adults) determine when to apply what approach, as they choose and modify standing patterns of interaction. For example, the children of undocumented Mexican immigrant families in New York City who became involved in political protests needed to determine whether to distinguish or generalize such public protests from ‘protests’ to unfair decisions by a teacher or a parent. If children automatically transfer one mode of learning to other settings, this may have negative consequences, as when indigenous children attempt to collaborate with each other in classrooms that treat helping as cheating.

Rogoff (2003) argued that rather than assuming that skills should generalize broadly, an important goal of development is appropriate generalization — learning “which strategies are helpful in what circumstances.” Learning to fit approaches flexibly to the circumstances is also an important feature of what Hatano (1982) called adaptive expertise. The idea of repertoires helps ground ideas of competence by inviting specification of what the practices in a repertoire are meant to accomplish.

Although particular practices are associated with specific social identities, activities, and places, there may be a range of practices one may use in a given situation, in addition to the possibility of developing new approaches. Lave and Wenger (1991) argued that integral to participation is an individual’s sense of belonging to a web of social relationships and accordingly the meanings the activity holds for them. An example is provided by a study that found contextual differences in how African American children narrated stories concerning conflict resolution, within a school-based violence prevention program (Daiute, Buteau, &

Rawlins, 2002). The third- and fifth-grade children were asked to respond to two narrative prompts: one asked for an ending to a fictional story and the other asked for an autobiographical story concerning social conflict. The children used more extensive and elaborated resolution strategies in their autobiographical narratives and used more literary resolutions in their fictional narratives, suggesting that they interpreted each task as signifying particular narrative modes of discourse (particularly within the context of the values promoted by the curriculum), each with different interpretive strategies.

In some communities, children are provided with support in determining whether the purposes or goals for given activities are the same or different across settings. For example, Japanese mother-child and teacher-child interaction may often provide children with explicit ‘boundary training,’ marking the differences in behavior expected in different contexts and providing strategies to handle new contexts (Lebra, 1994). Likewise, adults in African-American working class communities encourage children to use their own experiences in flexibly determining roles and relationships as these shift across situations (Heath, 1983).

Individuals may choose how to engage in an activity with some deliberateness, or they may adapt or select an approach from their repertoire with little or no reflection. At times that children experience points of disruption regarding their own and others’ expectations regarding how to engage in a particular activity, the issue of repertoires may become salient, especially as children traverse settings that are disparate in the goals and meanings assigned to particular actions. In those moments of disruption, children may reflect on their own ways of acting that are not in accord with modes of participation in other settings.

Although adjustment and modification of repertoires is often not accompanied by such reflection, determining which approach to take nonetheless involves an individual’s agency,

attending at some level to the affordances and cues in a particular situation and how they relate to familiar practices. Courses of action are thus a matter that involve both the active roles of individuals and the dynamic structures of situations. The determination of an action is *in the participation* itself — of the individual involved in the activity — not in the individuals nor the contexts separately. Determining which approach in one's repertoire to apply or to build on requires attentiveness to the structure of situations and how they fit with one's goals, to align with the direction of ongoing events, to invent new approaches when old ones do not work, to revamp an original way of participating by combining with other forms, to determine whose approach to align with in a politically charged or divisive situation, and to decide which goals to prioritize in a given situation (such as resisting involvement in a distasteful event, showing solidarity with a peer, competing with others, or avoiding being noticed).

The idea of repertoires as cultural tools that change as people use them is consistent with Erickson's (2004) examination of the relation of social 'structure' and individual agency in the everyday interactions of social life. These interactions take place in real time with improvisation by the participants, making use of the affordances and dealing with the constraints of historically developed practices that precede the particular interaction. As such, the interaction of individuals is agentic, as people engage in continual opportunistic history-in-the-making, usually on a small scale, building on longer term historical processes. People's opportunism often requires innovation, as participants make use of what is available in cultural practices to address their current needs and intentions. Human life simultaneously involves changes *and* continuities — innovations using cultural repertoires to build current approaches.

In summary, we have argued that an understanding of the routine formats and activities in

which children engage aids in understanding their cultural experience and preparation to engage in particular settings with specific cultural practices. Attention to the social organization of routine events (such as bedtime story telling or language games or helping around the house) will reveal reasons for certain children's ease or confusion or even resistance when they enter new settings that are organized in ways that may relate to, differ from, or even conflict with those with which they have experience. We examined three major traditions for organizing human learning — intent community participation, assembly-line instruction, and guided repetition — which each have a substantial history as well as an organization of practices that may challenge children (and adults) who are new to participating in them.

Seeing the cultural organization of everyday practices as well as of whole learning traditions can help researchers understand children's (and our own) development as cultural beings. Such understanding can also help practitioners ease the entry of newcomers to a specific tradition such as that commonly employed in schooling. In addition, it can help find ways to revise the structure and practices of such institutions to better serve people with varying cultural experience, if the institutions' practitioners are themselves given the opportunity and time to expand or adjust their repertoires.

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