

## Cultural variation in young children's access to work or involvement in specialised child-focused activities

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Ethnographic literature indicates that in many cultural communities around the world, children have extensive opportunities to learn through observing and participating in their community's work and other mature activities. We argue that in communities in which children are often segregated from adult work (as in middle-class European American communities), young children instead are often involved in specialised child-focused activities such as lessons, adult-child play (and scholastic play), and conversation with adults on child-related topics.

We examine this argument with systematic time-sampled observations of the extent of 2- to 3-year-old children's access to adult work compared to their involvement in specialised child-focused activities. Observations focused on 12 children in each of four communities: two middle-class European American communities (West Newton, Massachusetts and Sugarhouse, Utah), Efe foragers of the Democratic Republic of Congo, and indigenous Maya of San Pedro, Guatemala. West Newton and Sugarhouse children had less frequent access to work and were involved more often in specialised child-focused activities than Efe and San Pedro children.

The results support the idea that the middle-class European American children's frequent involvement in specialised child-focused activities may relate to their more limited opportunities to learn through observing work activities of their communities. It may be less necessary for the Efe and San Pedro children to be involved in specialised child-focused activities to prepare them for involvement in mature community practices, because they are already a regular part of them.

### Introduction

This paper examines cultural and historical aspects of children's opportunities to learn the mature ways of their communities. We draw attention especially to the cultural basis of the arrangements of the daily lives of young middle-class US children in two locales by examining their everyday access to adult work as well as their engagement in specialised child-focused activities, and by comparing their lives with those of children in two other communities. Our thesis is that in middle-class communities that offer children little access to observe and participate in the ongoing work of their community, young children's preparation for mature roles often occurs by taking part in lessons, adult-child play, and conversations with adults on child-focused topics. In middle childhood, these specialised child-focused activities continue in compulsory schooling designed to prepare children for mature involvement, largely in activities separate from productive adult endeavours.

We base our proposal on ethnographic and historical accounts suggesting that the "mainstream" US social interaction practices often studied in developmental psychology are a cultural pattern of arrangements for children's learning that

make sense given US children's current segregation from adult workplaces and their required schooling. In communities in which children are much less segregated from the mature activities of their communities, it may make sense for there to be less reliance on the sort of adult arrangements for children's learning that are often taken for granted in developmental psychology. Instead, young children are likely to have greater access to the adult world as *legitimate peripheral participants* (Lave & Wenger, 1991).

We examine cultural patterns with a systematic comparison of 2- to 3-year-olds' access to work compared to involvement in specialised child-focused activities in two middle-class US communities and two other communities in which children in middle childhood typically participate responsibly in adult work, and where there is little or no history of formal schooling.

### Cultural basis of children's learning environments

Cultural research indicates that a great deal of children's day-to-day learning relates to the settings they frequent and their daily routines, in addition to direct adult-child engagements (Bronfenbrenner, 1979; Super & Harkness, 1997; Weisner & Bernheimer, 1998; Whiting, 1976, 1980; Whiting & Edwards,

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1988). Investigating these societal arrangements is key to understanding the development of children's skills, social relations, and roles in a culturally structured social and institutional world.

Yet, much of what we know about child development comes from the study of middle-class European American practices, without considering their cultural basis. This focus has often led to unexamined assumptions about what constitutes normal childhood settings and daily routines. In fact, middle-class European American arrangements for children are so taken for granted that they are often treated as the norm even when compared with the practices of other communities—whose ways are regarded as “cultural” (Cauce & Gonzales, 1993; Garcia Coll et al., 1996; McLoyd & Randolph, 1985; Rogoff, 2003).

There has been greater research attention to children's settings and daily routines in other communities. Prominent in ethnographic accounts in nonindustrial communities in which schooling plays little or no role is the regularity with which young children observe and participate in work (Blount, 1972; Briggs, 1991; Collier, 1988; Coy, 1989; Harkness, 1977; Heath, 1983; John-Steiner, 1984; Rogoff, 1981; Schieffelin, 1990). In such communities, 5- to 7-year-olds often take on many mature responsibilities, like tending young children and animals and maintaining the household (Munroe, Munroe, Michelson, Koel, Bolton, & Bolton, 1983; Munroe, Munroe, & Shimmin, 1984; Rogoff, Sellers, Pirotta, Fox, & White, 1975; Whiting & Edwards, 1988).

Although little is known about young middle-class US children's access to work, it is reasonable to assume that they are often segregated from adult work. US children are prohibited from many forms of work and often from accompanying their parents to the workplace, and by middle childhood they are required to spend a large part of most days segregated in school. Our study examines the routine activities of young children from four communities, before the age of compulsory schooling.

### *“Middle-class” ways as cultural practices*

We regard “middle-class” as a cultural designation, not as a reference to a single variable, and “middle-class” child-rearing as a cultural pattern (Rogoff & Angelillo, 2002). The usual definition of middle-class includes not only economic standing, but also extensive involvement in formal schooling—a cultural institution deriving from European traditions—and occupations that require extensive schooling (see also Bourdieu, 1990; Mehan, 1992; Willis, 1977). Middle-class patterns of living also often involve one or both parents working outside the home and the kinds of family practices, values, and beliefs that often accompany extensive schooling and middle-class occupations and income (Hollingshead, 1949).

Our objective in this paper is to identify *community-level* cultural child-rearing configurations. For this reason, we do not attempt to isolate within-community characteristics of individuals (such as income level, ethnicity, or occupations). However, we do speculate on the importance of two community-wide characteristics—prevalence of schooling and segregation of children from work—in the cultural constellations we identify. We compare middle-class European American children's daily activities with those of children from two other communities in which schooling and the segregation of young children from work are likely to be much less prevalent. If our

study establishes the expected patterns, further studies in more communities than the four that we study here—or historical research—would be needed to specify which community practices may contribute to the differences.

Our interest in community-wide prevalence of schooling and segregation of children from work is partially based on historical accounts suggesting that social and economic changes in the US have led to the treatment of childhood as a time of preparation for rather than involvement in work, with a growing reliance on learning in formal school settings to accomplish this goal. In the early 1800s, about 70% of US children lived in farm families, with family members working side by side (Demos & Demos, 1969; Hernandez, 1994). When the economic base shifted from agriculture to industry (and from at-home to out-of-home work), children's opportunities to learn work skills through involvement in work at home declined. Schools began to serve widely as a specialised setting that provided exercises to prepare children for later “real-world” work, generally without direct involvement in ongoing productive activity (Dewey, 1915; Greenfield & Lave, 1982; Scribner & Cole, 1973). As industrialisation gained prominence, schooling was made compulsory and lengthened, further limiting US children's opportunities to participate in the productive activities of their families.

Now, middle childhood is spent predominantly in school, and the role of this institution (along with restrictions on child access to work) is so taken for granted that children's learning is often equated with school learning. Many features of current middle-class early child-rearing practices may be preparatory for subsequent entrance into the specialised setting of school and eventually into the mature world of work. We suggest that if community arrangements restrict young children's access to work activities, alternate societal arrangements may develop in which adults create and enter specialised settings centred on children, in activities that may “prepare” children for the adult world from which they are largely excluded—and for school on the way.

### *Specialised child-focused activities in early childhood as preparation for schooling*

Research suggests that young middle-class US children may regularly participate in specially designed child-focused activities in which adults engage young children as peers in child-focused conversations, enter into children's play, and involve children in lessons (Heath, 1982; Rogoff, 1990; Rogoff, Mistry, Gröncü, & Mosier, 1993). These cultural practices may prepare children for school and later participation in work.

Middle-class European American adult interaction with preschool children frequently resembles the teaching style of school, where children are often given lessons organised specifically for their learning, out of the context of productive activity (Heath, 1986; Olson, 1985; Rogoff et al., 1993). Other common practices include adults engaging young children as conversational peers, accommodating their speech to facilitate children's involvement, and focusing conversation on child-related topics (Harkness, 1977; Heath, 1982; Ochs & Schieffelin, 1984; Rogoff et al., 1993; Schieffelin, 1990; Schieffelin & Ochs, 1986; Snow, 1979). Middle-class adults also regularly engage toddlers and preschool-age children in the initiation-reply-evaluation sequence widespread in schools, asking questions to which the questioners know the answers (Heath, 1982, 1986; Mehan, 1979; Ochs & Schieffe-

lin, 1984; Rogoff et al., 1993; Schieffelin & Eisenberg, 1984; Wells & Montgomery, 1981). Besides familiarising children with the discourse formats commonly used in schools, these specialised forms of communication may teach children about activities to which they do not have regular access.

Middle-class European American adults may also use adult-child play to create special learning situations to prepare young children for school (Haight, 1991; Haight & Miller, 1993; Rogoff et al., 1993; Whiting & Edwards, 1988). Toddlers and preschool-age children also are encouraged to play at scholastic themes—a specialised child context considered to provide children with opportunities to learn school skills such as literacy (Christie, 1991; Jacobs, 1982; Pellegrini & Galda, 1991).

In contrast, in communities in which children spend much of their day in contact with or actually taking part in the work of their family, the skills and goals of mature activities may be more readily apparent to young children (Goody, 1989; Jacobs, 1982; Rogoff, 1981; Scribner & Cole, 1973). It may not be necessary for adults to organise lessons or specialised forms of conversation, or to enter into child play to teach children the ways of work (or of school work—preparatory for “real” work). Instead, children may be expected to keenly observe the activities around them in order to learn (Briggs, 1991; Collier, 1988; Fortes, 1938/1970; Gaskins, 1999; Heath, 1983; Rogoff et al., 1993; Ward, 1971).

In such communities where children have many opportunities for involvement in mature activities, conversation between children and adults usually occurs for the sake of sharing necessary information; adults rarely use modified forms of speech or focus conversation on child-oriented topics to engage children in talk (Blount, 1972; Heath, 1982; Ochs & Schieffelin, 1984; Ward, 1971). Similarly, adults seldom play with children—other children are considered more suitable playmates—and when play does occur between adults and children, it tends not to be fashioned into an educational exercise (Bloch, 1989; LeVine, 1990; Rogoff, 1990; Schieffelin, 1990; Ward, 1971).

The research suggests a relation between young children's segregation from work and their involvement in specialised child-focused activities. To our knowledge, the present study is the first systematic study testing this idea by comparing young children's everyday access to work versus involvement in specialised child-focused activities in different cultural communities.

### A study of contrasting cultural traditions: Children's access to work or involvement in specialised child-focused activities

Our study time-sampled access to work and involvement in specialised child-focused activities of 2- to 3-year-olds in two middle-class US communities and in two communities where 5-year-olds typically make regular contributions to family productive activities. The two middle-class communities that we studied are from very different regions of the United States: West Newton is near Boston, Massachusetts, and Sugarhouse is a neighbourhood of Salt Lake City, Utah.

We focused on European American middle-class communities because children of this background have often served implicitly as the contrast with children in nonindustrial

communities. If we find similar practices in these two different communities, it would provide important supportive evidence for our thesis of a middle-class European American cultural pattern. We are not attempting to generalise to US child-rearing. Further research would be needed to determine the generality to middle-class communities of other ethnic heritages (within the US or elsewhere) or to European American groups whose schooling and economic circumstances contrast with the middle class.

Efe foragers of the Democratic Republic of Congo (formerly Zaire) and San Pedro, a Mayan town in Guatemala, were chosen as the two other communities because ethnographic findings indicate that children begin to participate responsibly in work activities of their community by age 5 (Morelli, 1997; Mosier & Rogoff, 2000; Rogoff, 1981). Moreover, these communities are familiar to the researchers, who had done extensive prior research in them, providing background information and skills important for the planning and interpretation of the study.

In many respects, the Efe and San Pedro communities are quite distinct. They differ with regard to means of subsistence (foraging versus agriculture and commerce), access to modern technologies, and formal schooling. The Efe are nonliterate, whereas in the past two decades people in San Pedro have shifted from schooling involving only a few grades to greater involvement of the younger generation in Western schooling. If these two communities have similar contrasts with the two middle-class communities, despite the great differences between them, it will provide strong evidence for our claim that access to or segregation from work is an important part of cultural child-rearing ecologies. We do not imply that the Efe and San Pedro represent their nations. Rather, we examine the patterns that may occur in common across these two distinct communities as a way of beginning to investigate the relation of young children's access to mature community activities and their involvement in specialised child-focused activities.

We focused on 2- to 3-year-olds in order to examine cultural variations in early access to work and involvement in specialised child-focused activities, as precursors to the age at which children begin to carry out in earnest their community's work and schooling roles. By about 5 years of age, US middle-class children are required to spend a large proportion of their time in school; in the other two communities, 5-year-olds participate in the work of their family and either do not attend school or attend a few hours of school per day, often for a limited number of years (Morelli, 1997; Rogoff et al., 1993).

We expected that 2- to 3-year-olds in the middle-class communities compared with the two other communities would have less access to work (and be less likely to emulate adult work in play) and greater involvement in specialised child-focused activities—lessons, adult-child play (and scholastic play), and conversations with adults on child-related topics.

### *The research team*

All investigators were from US middle-class communities and have lived in the West Newton and Sugarhouse regions. The first author has worked with the Efe for over 20 years, living among them for 6 years to conduct ethnographic and psychological research. She is fluent in Swahili (a language used for commerce and understood by many Efe) and has some understanding of KiEfe, the native language of the Efe. A

local woman fluent in KiEfe and Swahili who has worked with her on similar projects over the years accompanied her to all observational sessions.

The second author has studied San Pedro for over 20 years (with 2 years in residence to conduct ethnographic and psychological research) and is familiar with the native Mayan language, Tz'utujil, and conversant in Spanish (used by many people in San Pedro). The second author accompanied the third author (fluent in Spanish) to San Pedro to introduce her to townspeople and to a local female research assistant (a speaker of both Tz'utujil and Spanish), who accompanied the third author to all observational sessions.

### *The children and their families and communities*

Twelve children ranging in age from 27 to 46 months ( $M = 38$  months) from each community took part in the study; in each community, half the children were girls and half were boys. Efe and San Pedro families were recruited through social visits to families, many of whom were known to the research team. All the Efe and San Pedro families were indigenous to their area, and all who were asked agreed to participate. The West Newton and Sugarhouse families were identified using the local birth register. Each family received a letter inviting them to participate in the study, and a few days later was contacted by phone to determine if the family met the criteria for selection: The child's primary caregivers had to be US born, and mothers had to have completed at least 12 years of formal education. Most West Newton and Sugarhouse families who were asked to take part in the study did so (24 of 30).

*The Efe.* The Efe of the Ituri Forest of the Democratic Republic of Congo are a short-statured, forest-dwelling people who obtain subsistence materials by gathering, hunting with bows, and working for a neighbouring farming community. Most Efe live in transient camps of about 5 to 17 people from one or several extended families. In this study, all children's mothers lived in camp; four of the children's fathers were away (honey-gathering and hunting) for part of the study.

Efe children wander freely about the camp where most activities (including tool-crafting, cooking, and entertainment) take place in clear view. Children also have access to private events—they are allowed to enter most huts uninvited. Outside the camp, children often accompany women (and sometimes men) who are gathering food, collecting firewood or water, or working in gardens. At night, children can choose to sleep with their parents or in the hut of a favourite relative or friend (Morelli, 1997; Morelli & Tronick, 1992).

The Efe have had little experience with formal schooling, in part because of their nomadic way of life. Of the families observed, none of the Efe mothers, fathers, or children had attended school or had easy access to literacy-related materials.

The 12 Efe children averaged 37 months of age (range 27 to 45 months). Three of them were first-born, three were second-born, and six were third- to sixth-born. Families averaged 3.8 children (range 2 to 7).

*San Pedro.* San Pedro is a modernising Mayan agricultural town in Guatemala. Occupations are increasingly commercial and townspeople now have access to many forms of technology. Most of the 8000 town residents were born in San Pedro. Households typically include extended family

members; seven of the households in this study did. All mothers and 10 of the 12 fathers were living at home (information for 1 father was not available).

Children may move freely about the neighbourhood by the age of 3 or 4 years, visiting and observing neighbours who are going about their daily routines, often in outdoor courtyards (Rogoff, 1981). At night, children continue to be a part of adult social life and fall asleep with the rest of the family or when sleepy (Morelli, Rogoff, Oppenheim, & Goldsmith, 1992).

Schooling in San Pedro has become much more widely attended and valued in recent years, although it is still seen as a "foreign" institution. Instruction is primarily in Spanish, the national language, not in the local Mayan language used at home. Two decades before our study, 25% of local children did not attend school, and the others often attended for only three grades. At the time of our study, most children attended half-day sessions beginning around the age of 6 years; continuing through six grades was not unusual. We attempted to select families with little maternal schooling in order to represent the more traditional population of this rapidly changing town. Seven mothers never attended school; the other five attended school for four grades or less ( $M = 0.9$  grades). Most fathers had some schooling ( $M = 3.3$  grades).

Most of the mothers' primary work was family and household care; eight of them also earned income by weaving, embroidering, or selling goods. Only one mother worked away from the home (as a nurse's aide). Eight fathers worked away from home (in work such as agricultural labour and carpentry). One father worked at home (as a small business owner) and two harvested crops away from home but prepared their harvest at home for sale.

The 12 San Pedro children averaged 35 months of age (range 30 to 41 months). Two of them were first-born, one was second-born, and nine were third- to thirteenth-born. Families averaged 4.6 children (range 2 to 13).

*Two middle-class European American communities.* We selected neighbourhoods in West Newton, MA, and Sugarhouse, UT, where household socioeconomic conditions and extensive schooling were representative of middle-class living for each region. In both communities, most households were single-family dwellings with yards and segregated places for children to play during the day. At night, children's separation from many adult activities continued, with children typically going to sleep earlier than their parents, usually in their own rooms. All but two families participating in this study were nuclear; all mothers and all but one father were living at home.

The parents had a great deal of formal schooling. In both communities, mothers' formal schooling averaged 16 years (range 12–20); fathers averaged 17 years (range 12–24 in West Newton and 12–25 years in Sugarhouse). Parents often prepared young children for school by providing books and educational toys and sometimes by sending them to preschool or daycare (five West Newton children and five Sugarhouse children attended preschool or daycare).

Employment for almost all the fathers and about half of the mothers occurred away from home. All except one of the middle-class fathers worked away from home (in work such as an attorney, consultant, and teacher). Six West Newton mothers had paid employment (in work such as a therapist, consultant, and data-processing manager); five of them worked outside of the home. Seven Sugarhouse mothers worked

outside the home (in work such as a nurse, teacher, and administrative assistant).

The 12 West Newton children averaged 40 months of age (range 35 to 45 months). Three of them were first-born, five were second-born, and four were third- to fifth-born. Families averaged 2.9 children (range 2 to 5). The 12 Sugarhouse children averaged 39 months of age (range 31 to 46 months). Four of them were first-born, four were second-born, and four were third- to sixth-born. Families averaged 2.8 children (range 1 to 6).

### Procedure

In our first visit, we asked about family background, the child's daily routine, and individuals or institutions whose permission was needed in order to observe the child when outside of the home. Families were given the opportunity to examine the wireless microphone used to amplify what was said to and around the child.

We time-sampled children's activities by observing them wherever they went from the time they awoke in the morning until the time they went to sleep for the night. Children were observed in three 4- to 5-hour sessions (morning, afternoon, and evening) on 2 or 3 days within a 7-day period, for a total of 12-15 hours. The days and times of observations were selected randomly by the researcher; all families agreed to the suggested times (on only one occasion was a session rescheduled, because the child became ill).

Observations were limited to weekdays in San Pedro, West Newton, and Sugarhouse, because in these communities (unlike among the Efe), on the weekend, most parents broke from weekday work routines and many families attended religious services or went on excursions. Focusing on weekdays seemed likely to provide the most comparable data, because the local range of work is more usual on weekdays in these three communities.

### Coding of work and specialised child-focused activities

The children's activities were recorded using a version of spot observation, a method of gauging time allocation (Bernard, 1988; Munroe & Munroe, 1971; Rogoff, 1978). The observer recorded the activities of interest that occurred during a 20-second window of time every 6 minutes (a "scan"). Children were also watched between scans to glean contextual information essential for making coding decisions. The average number of scans was 109 (range 83-126), and did not differ significantly across the four communities. Data analysis included only times when children were awake ( $M = 100$  scans).

Our coding scheme was conceptually derived, in order to examine our thesis. Its development was aided by our extensive knowledge of the communities, comments of community members, and conversations with indigenous assistants in the Efe and San Pedro communities. The activities we report on include work, lessons, play, and free-standing conversation; these activities were mutually exclusive and each was noted at most once per scan, even if they occurred more than once in the 20 seconds.

*Work.* Work involved paid or nonpaid activities that contributed to the production of goods and services as well as to the maintenance of the household or other setting. The kinds of work that were commonly coded include: harvesting

peanuts, weaving, selling fruit to passersby, roasting food on an open fire, flattening dough to make tortillas, washing dishes, and putting away toys. We were most interested in whether work was accessible to the child—when work occurred in a way that the child could have watched or listened to it with only slight changes in posture or location, or the child was involved. When the child was involved in work, we noted whether the child was participating directly in or observing it (i.e., closely watching, listening, or attending to an event—judged by observing the child's posture, gaze, and actions). To help decide whether a child's activity was work, we considered whether the activity would have been regarded as work if an adult were involved in it; we also included assigned errands such as asking a child to fetch a pot for cooking or to bring her mother the newspaper.

Separately from our recording of work, we also recorded instances in which children emulated adult work in their play (e.g., playing store or pretending to cut firewood; see definition of play below). This could have involved adult partners, but seldom did.

*Specialised child-focused activities.* Children's involvement in specialised child-focused activities included school-like instruction (lessons) and adults<sup>1</sup> interacting with children in situations focused on children's interests or on schooling (adult involvement with children in play, especially scholastic play, and in free-standing conversations on child-related topics).

Lessons involved purposely teaching a child about something or how to do something, preparing the child with a way to act in the present and in future situations. The researcher had to be able to identify a "curriculum", although this need not have been made explicit to the child. Lessons could be *scholastic* (e.g., counting; labelling colours), *work* (e.g., how to use a mortar and pestle or how to tell when bread has been kneaded enough; such lessons almost never occurred in the context of ongoing work), *interpersonal* (e.g., shaking hands; giving up your seat for someone), or *skill/nature* about the technical, natural, or spiritual world (e.g., how to tie shoelaces; when the seasons change; how to worship).

Play with adults involved recreation (including scholastic play as well as pretend play, games, and rough-and-tumble play) of the sort that is studied in the play literature, which is often characterised as being intrinsically motivating or non-literal (Uzgiris & Raeff, 1995). We excluded adult recreation (e.g., adult card games and television programmes) because of our focus on specialised child-focused activities. An adult needed to be more involved than simply suggesting that a child engage in play (e.g., not "Why don't you go play with your brother?").

We also specifically examined *scholastic play*. It involved any literacy- or numeracy-related activity that was clearly intended for entertainment (without an explicit focus on teaching), such as singing alphabet songs or reading a story to a child. (If the intent was to instruct the child, the lesson category was used. For example, singing alphabet songs is scholastic play whereas the following is an example of a lesson: "What shape is this? Yes, an *m*. Do you know any other word that begins with an *m*?")

<sup>1</sup> Adults were defined as at least 16 years old. We also checked the extent to which youths aged 11 to 15 entered into children's play or engaged in free-standing conversation with them on child-related topics; this was rare in all communities.

*Free-standing conversations with adults on child-related topics* involved exchanges (of more than a few words) that were not integral to the conduct of work, play, or lessons (e.g., telling a child how to hold a carrot as he slices it would not be coded as free-standing conversation). Because of our interest in specialised child-focused activities, we targeted free-standing conversations with at least one adult, in which the topic focused on children's activities, interests, or needs. Thus, an adult chatting with a child about how the child spent her day was coded as focused on a child-related topic, but times that a child joined an ongoing adult conversation on an adult-related topic were not. The adult role needed to extend beyond simply suggesting that the child engage in conversation (e.g., not "Why don't you tell your sister about what happened at preschool today?").

### Reliability

Because not all members of the research team were familiar with all the languages and sites, reliability training and estimates were carried out in middle-class US communities. Reliability was estimated before and during this study by extensively observing children in homes and child-care arrangements, and by observing videotaped recordings of children's daily activities. Information collected during reliability sessions was not included in data analysis. Reliability coefficients indicated excellent reliability—Cohen's Kappa ranged from .87 to 1.0.

We are confident that the Efe and San Pedro coding is comparable with coding in the US communities. By the time the Efe and San Pedro data were collected, the observers (the first and third authors) had achieved excellent levels of reliability by working together on US data. In addition, questions regarding observations in San Pedro were checked by consultation with the other authors in person and by phone. The first author took extensive field notes of the observations of Efe children to review coding decisions with the co-authors on her return.

## Results

As background, we note that children in all four communities were usually in voice or visual range of at least one adult: 98% of the scans for the Efe, 74% for San Pedro, 84% for West Newton, and 81% for Sugarhouse. However, West Newton and Sugarhouse children often were in the company of just one adult (60% and 53% of the scans), whereas Efe and San Pedro children's access to adults was rarely limited to only one adult (14% and 39% of the scans).

We relied on one-way analyses of variance and Tukey-B post hoc tests to compare the four communities in children's access to work and involvement in specialised child-focused activities; significance levels were at the  $p < .05$  level unless otherwise indicated.<sup>2</sup>

### Children's access to work

The findings support our primary hypothesis of differences between the middle-class communities and the other two

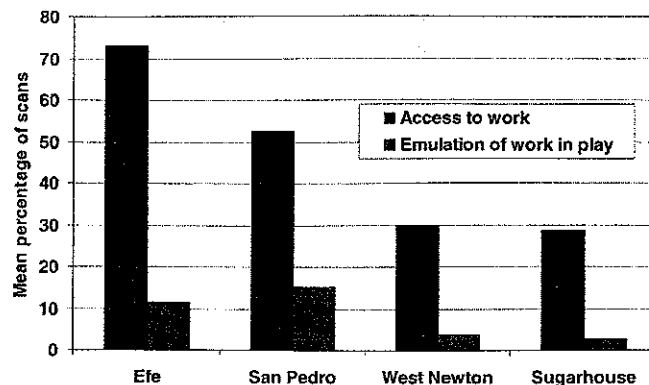


Figure 1. Children's access to work and emulation of work in play.

communities in young children's access to or segregation from work. Although the children in all four communities had some access to work, children in the two middle-class European American communities had less access to work than those in the Efe and San Pedro communities. (See Figure 1; the community difference was significant,  $F(3, 44) = 53.0$ ,  $p < .001$ .) West Newton and Sugarhouse children spent a significantly smaller percentage of scans in settings with ongoing work (30% and 29%;  $SD = 9$  and 10) than did Efe and San Pedro children (73% and 52%;  $SD = 12$  and 9). The difference between Efe and San Pedro children was also significant.

Children from the four communities also differed in the extent to which they observed the work of others,  $F(3, 44) = 7.48$ ,  $p < .001$ . Efe children spent about a quarter of their scans observing work (26%,  $SD = 11$ )—significantly higher than in West Newton (13%,  $SD = 8$ ) and Sugarhouse (12%,  $SD = 4$ ). San Pedro children observed work to an intermediate extent (in 19% of the scans,  $SD = 7$ )—more often than West Newton and Sugarhouse children and less often than Efe children; these differences, however, were not significant.

Not surprisingly, the 2- to 3-year-olds rarely actually participated in work (4% to 7% of scans across the four communities; differences were not significant). Children at this very young age have yet to participate extensively in the work of their community.

However, there were striking community differences in the extent of scans in which these young children emulated work in their play, such as making tortillas out of dirt, pretending to shoot animals with a bow and arrow like their elders, and "comforting" dolls,  $F(3, 44) = 6.4$ ,  $p < .001$  (see Figure 1). West Newton and Sugarhouse children emulated work three to four times less often than Efe and San Pedro children (in 4% and 3% of the scans,  $SD = 3$  and 2, vs. 12% and 15% of the scans,  $SD = 11$  and 12; differences were significant between the two middle-class communities and San Pedro, and between Sugarhouse and the Efe). The differences in extent of emulation of work are consistent with differing opportunities to observe mature work.

### Children's involvement in specialised child-focused activities

*Lessons.* Differences occurred across the four communities in the extent to which children were involved in lessons,  $F(3, 44) = 7.1$ ,  $p < .001$  (see Figure 2). West Newton and Sugarhouse children were more likely to be involved in lessons than were

<sup>2</sup> Analyses of gender revealed only one statistically significant difference. As no gender differences were predicted and the number of comparisons were many, we consider the one difference spurious.

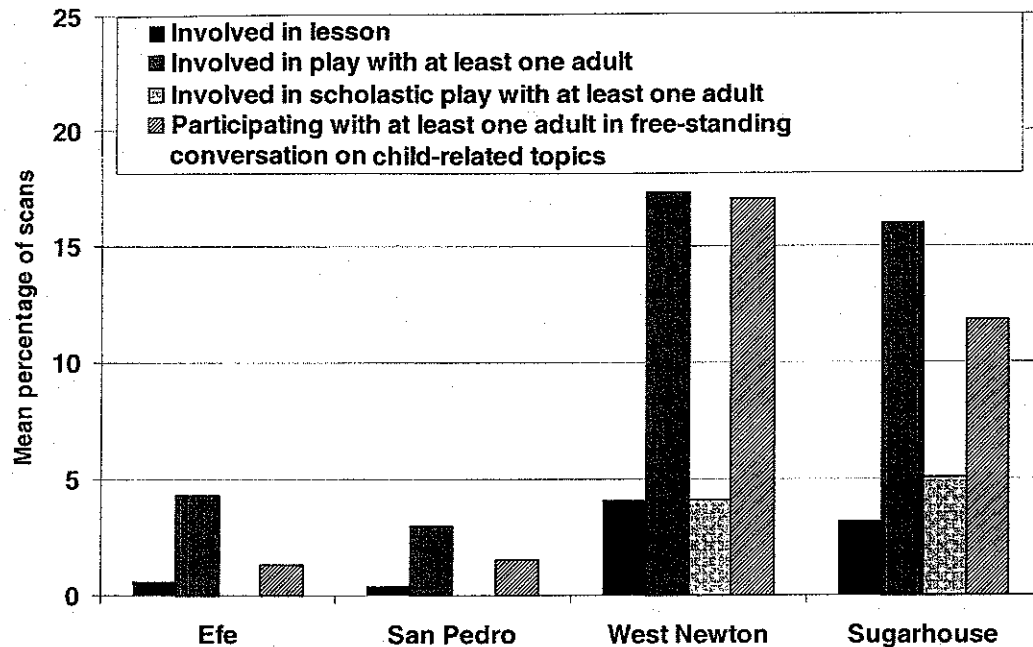


Figure 2. Children's involvement in specialised child-focused activities.

Efe or San Pedro children (4% and 3% of the scans,  $SD = 3$  and 4, vs. 0.6% and 0.4% of the scans,  $SD = 0.9$  and 0.9). All 12 Sugarhouse and 11/12 West Newton children were involved in lessons, compared with only 5 Efe and 3 San Pedro children.

The lessons of the West Newton and Sugarhouse children usually took place when children were at their home or a relative's home (88% and 90% of the lessons), and most of them had to do with skill/nature training and interpersonal behaviour. Lessons for these children were not primarily a preschool phenomenon.

*Children's involvement in play with adults.* The communities differed in the extent of adult-child play,  $F(3, 44) = 22.7, p < .001$  (see Figure 2). West Newton and Sugarhouse children more often played with at least one adult (17% and 16% of scans;  $SD = 5$  and 8) than Efe or San Pedro children (4% and 3%;  $SD = 4$  and 3). The community differences remained even when the extent of play with *any* partner was considered,  $F(3, 44) = 17.3, p < .001$ . At least one adult was involved in about half of the children's play with any partner in West Newton and Sugarhouse (62% and 50%;  $SD = 17$  and 27); this was significantly more than the adult involvement in 25% of children's play among the Efe and 10% in San Pedro ( $SD = 20$  and 10).

Children's *scholastic play* also showed community differences,  $F(3, 44) = 11.8, p < .001$ . West Newton and Sugarhouse children more often played at scholastic themes than Efe or San Pedro children (6% and 6% of scans,  $SD = 5$  and 5, vs. 0.2% and 0.1%,  $SD = 0.4$  and 0.3). Almost all the West Newton and Sugarhouse children (22/24) were involved in scholastic play, whereas only 2 of the Efe and 1 of the San Pedro children ever were. The community difference in involvement in scholastic play remained even when differences in the extent of play were taken into account,  $F(3, 44) = 11.9, p < .001$ . In West Newton and Sugarhouse, the proportion of play devoted to scholastic themes averaged 10% and 11% of children's play ( $SD = 9$  and 7), whereas this type of play made

up almost none of Efe and San Pedro children's play (0.9% and 0.2%,  $SD = 2$  and 0.6).

West Newton and Sugarhouse children's scholastic play usually involved at least one adult (in 72% and 78% of scholastic play) whereas it never did for Efe and San Pedro children. Scholastic play amounted to 4% and 5% of the scans ( $SD = 4$  and 5) for West Newton and Sugarhouse,  $F(3, 44) = 9.1, p < .001$  (see Figure 2). Moreover, a substantial proportion of the middle-class children's play with adults was scholastic play (24% and 32%), supporting the idea that adult entry into play with children may often be preparatory to children's school participation.

It is telling that the Efe and San Pedro children almost never engaged in scholastic play (averaging 0.2% and 0.1% of scans) whereas emulation of work (in 12% and 15% of scans) accounted for almost half of Efe children's play and more than a quarter of San Pedro children's play. In contrast, middle-class children of both communities engaged in scholastic play somewhat more often than they emulated work in their play (in 6% vs. 3–4% of their scans).

*Children's free-standing conversations with adults on child-related topics.* Most of the West Newton and Sugarhouse children's free-standing conversations (on any topic, other than conversation integral to ongoing work, lessons, or play) included at least one adult. Adults participated with West Newton and Sugarhouse children in 76% and 65% of their free-standing conversations ( $SD = 12$  and 20), compared to 31% and 36% for Efe and San Pedro children ( $SD = 35$  and 31),  $F(3, 42) = 8.2, p < .001$ .<sup>3</sup>

The extent to which children participated with adults in free-standing conversation on child-related topics (other than

<sup>3</sup> West Newton and Sugarhouse children were more often involved in free-standing conversation with adults on any topic (other than conversation integral to ongoing work, lessons, or play) than were Efe or San Pedro children (23% and 19% of the scans,  $SD = 8$  and 9, vs. 6% and 3%,  $SD = 5$  and 2),  $F(3, 44) = 28.9, p < .001$ .

conversation integral to ongoing work, lessons, or play) differed as expected across the four communities,  $F(3, 44) = 37.1$ ,  $p < .001$  (see Figure 2). West Newton and Sugarhouse children more often participated in adult-child free-standing conversations about child-related topics than did Efe or San Pedro children (17% and 12% of the scans,  $SD = 6$  and  $6$ , vs. 1% and 2% of the scans,  $SD = 2$  and  $2$ ; differences between West Newton and Sugarhouse children were also significant). All 24 West Newton and Sugarhouse children engaged in adult-child free-standing conversation on child-related topics, compared with 9 Efe and 7 San Pedro children. It appears that adults are especially likely to enter into free-standing conversation with young children in the middle-class communities, and that their free-standing conversations often focus on child-related topics.

## Discussion

The findings support our expectations relating involvement in specialised child-focused activities to segregation of children from the range of mature work of their communities. In both middle-class European American communities, young children had relatively less frequent access to adult work, along with greater involvement in specialised child-focused activities—lessons, play with adults (especially scholastic play), and free-standing conversation with adults on child-focused topics. In the Efe and San Pedro communities, despite great differences in economic and schooling practices, work was often accessible to young children, who more frequently emulated adult work in their play and rarely engaged in specialised child-focused activities.

Our findings point to the importance of considering child-rearing traditions that include access to and responsible involvement in work as an important alternative pattern to segregation into specialised child-focused activities to prepare for later integration into school and adult activities. Of course, these are not mutually exclusive patterns—children in each community sometimes participated in both of these kinds of activity. However, the two patterns' relative prevalence in the different communities supports the idea that they are distinct, coherent community-level cultural/historical ways of arranging children's everyday lives.

### *Children's access to work*

Most wage-earning labour in West Newton and Sugarhouse took place in locations not easily accessible to children. This practice not only limits the extent of work that middle-class children can view and enter, but it also restricts them to primarily domestic household or daycare chores (such as cooking, washing dishes and clothes, and tidying up) that represent a narrow range of the work of middle-class US adults (Mosier & Rogoff, 2000). Even when the children accompanied adults outside of the home or childcare setting, the activities generally involved a small range of work—going on errands (such as purchasing food and clothing) and transporting children to and from childcare settings or children's exercise classes.

The fact that societal workplace arrangements segregate middle-class adults from children during much of the week when the full range of mature work occurs is central to our

thesis. We believe that the separation of the work world of adults and the specialised childcare and education settings of children have great importance for understanding middle-class child-rearing practices.

Still, it is worth asking if our decision to observe children during the weekdays (and not weekends) affected the amount of work available to the US children. We do not believe so. We selected weekdays because in three of the communities, most of the local range of work takes place during this time. We were interested in children's access to the range of adult work, and not just household chores. Moreover, middle-class parents nowadays are doing fewer household chores on the weekend, to free up time to spend with their children (Bianchi, 2000; Bond, Galinsky, & Swanberg, 1998). In our data, middle-class children who stayed home with their mothers during the day did not have greater access to or involvement in adult work than children who spent part of their day in preschool or daycare settings. Middle-class parents of toddlers have reported that they commonly tried to do housework while the child was napping, to avoid interference (Rheingold, 1982). Thus we feel confident that inclusion of weekend times would not reduce the differences between the communities.

In contrast with the European American middle-class pattern of separation of work and home life, many of the work activities in the Efe and San Pedro communities occurred in or around camp or home, in settings that were easily accessible to children. Even when Efe and San Pedro family members worked outside of the camp or home, 2- to 3-year-olds were allowed to come along and sometimes help out. As a result, Efe and San Pedro children had more opportunities to be in the presence of adult work than children in the two European American middle-class communities, and Efe children observed work more frequently than West Newton and Sugarhouse children.

The San Pedro pattern, though similar to the Efe, may be in transition between integration of children in adult activities and greater segregation. This idea is supported by decades of ethnographic research in San Pedro along with the fact that the amount of work accessible to and observed by the San Pedro children was intermediate between the Efe and the two middle-class communities. Compared with 15 years earlier, many more San Pedro parents work outside the home and schooling is rapidly increasing, with more children completing more grades. Local people report that in middle childhood, although children still work, they are less involved in the family's work than in previous eras and are more focused on schoolwork (Magarian, 2001).

In all four communities, the 2- to 3-year-olds' actual participation in work was limited, which is not surprising given their very young age. Even so, the type of work that young Efe and San Pedro children did include relatively mature kinds of contribution. Young Efe children, for example, kindle the fire, prepare and cook food, and mind younger children. San Pedro 2- to 3-year-olds do errands in the neighbourhood and sell fruit or other items.

Rather than directly participating in much work at these young ages, the Efe and San Pedro children emulated adult work in their play. This was much more common than in the two European American middle-class communities. Playful practising of adult work, which they have plentiful opportunity to observe, may be an important way for the Efe and San Pedro children to enter into more contributory roles within a few years.



Our focus on a very young age was based on interest in studying children's routine activities well before age 5–7 years. By this older age, the arrangements and engagements of children become clearly distinguished by compulsory schooling in the US and by substantial roles in family work in nonindustrial societies (Caldwell, 1982; Hawkes, O'Connell, & Blurton Jones, 1995; Nag, White, & Peet, 1978; Rogoff et al., 1975). In middle-class communities, school attendance and work prohibitions restrict productive contributions in middle childhood, and work may often be seen more as a way to teach responsibility than as a way for children to contribute to household subsistence (Goodnow, 1996; White & Brinkerhoff, 1981), except, perhaps, when adult work is centred in the home (Beach, 1988). We were interested in the precursors to these distinct patterns. Our results do show differences in the extent of access to and emulation of mature work and involvement in specialised child-focused activities.

### *Specialised child-focused activities*

Our findings are consistent with the idea that in communities where children's access to work is limited, specialised child-focused activities may prevail as ways to help prepare children for subsequent involvement in school and work (Hareven, 1988; LeVine & White, 1987; Rogoff, 1990, 2003). Lessons in early childhood—more frequent among West Newton and Sugarhouse children than among Efe and San Pedro children—may familiarise children with this specialised instructional format used regularly in schools (Heath, 1986; Schieffelin & Eisenberg, 1984). Gaining familiarity with this format may prepare young children for learning in formal educational settings, independent of the particular information contained in each lesson.

Adults' frequent involvement in children's play in West Newton and Sugarhouse (compared to the Efe and San Pedro) may reflect views of some middle-class European American parents that adult involvement in children's play provides adults with a chance to teach children (Farver & Howes, 1993; Haight, 1991; Haight & Miller, 1993; Whiting & Edwards, 1988). Indeed, scholastic play—regarded as helpful in preparing children for school (Christie, 1991; Haight, 1991; Heath, 1982; Jacobs, 1982; Pellegrini & Galda, 1991)—comprised about a quarter to a third of West Newton and Sugarhouse children's play with adults.

Children in West Newton and Sugarhouse were also more often involved in free-standing conversations with adults (compared to Efe and San Pedro children). This finding is consistent with other research indicating that middle-class adults engage as conversational peers with young children, focusing on children's own activities and opinions (Rogoff, 1990; Schieffelin & Ochs, 1986). For example, West Newton and Sugarhouse adults often asked children to describe their daily activities (e.g., "Tell me what you did in preschool today.") and their feelings about people and events (e.g., "Did you have a nice time playing on the swings?"). This practice may reflect the belief that adult conversation with children helps to prepare children for the verbal demands of school (Beals & Tabors, 1995). What is more, adults may have to depend on child-related topics if they wish to converse with children who have limited access to many adult activities. Adults who often spend stretches of time apart from their children may also need to rely on children's accounts to learn about their children's day.

Among the Efe and in San Pedro, as in some other communities, adults expect children to learn mostly by observing and participating in mature activities with adults and other children,<sup>4</sup> not by teaching them through lessons or other specialised child-focused activities designed to facilitate children's later entry into mature activities. Because these children are integrated in adult activities, it would seem superfluous to prepare them using specialised child-focused activities for a world of which they are already a part.

### *Toward understanding community-level patterns*

Our research provides the first systematic comparative study examining variation among communities in societal arrangements of children's settings and daily routines. Future work will need to include more than four communities to clarify the relative contributions of different community-wide features that relate to the differences between communities in the extent to which children are routinely integrated in work or are segregated from it but engaged in specialised child-focused activities. To be more certain of the relations that we postulate—between community-wide segregation from work and community traditions of preparation of children for later inclusion in mature life through specialised child-focused activities—would require examining several dozen communities to have a reasonable sample size of communities.

With our aim of examining variations among communities in cultural practices, it was important to select communities that were rather homogeneous with regard to features such as extent of maternal schooling and ethnic heritage. Future work could examine individual differences *within* communities, which might or might not parallel differences between communities. Research with greater within-community heterogeneity and sample sizes could address within-community questions, such as differences within San Pedro children's activities associated with the extent of their mothers' schooling. (We explored this and other within-community variations, but the sample of 12 families with limited variability did not yield information.)

It would be particularly interesting to examine the pattern of children's integration in work *over time* in communities in which the prevalence of schooling is rapidly increasing. With increased involvement in schooling (which of course relates to other changes such as reliance on commercial work), communities like San Pedro and the Efe are likely to change in some respects in the direction of the pattern of activities of the middle-class communities. Our speculation is consistent with observations of differences associated with increases in schooling in discourse patterns of caregivers and children in San Pedro (Chavajay & Rogoff, 2002; Rogoff et al., 1993), immigrant African families in France (Rabain-Jamin, 1989), and Mexican families (Richman, Miller, & LeVine, 1992).

It would also be interesting to examine how widespread the "middle-class" cultural pattern is. We expect that it would also occur among the middle class of other ethnic heritages in the

<sup>4</sup> It would be of interest to examine how children's siblings and peers form a part of the system in the patterns that we have identified, to augment the focus of the present study on the relationship between children's integration in the adult world or adult entry into specialised preparatory settings for children. The roles of siblings and peers with young children seem to vary with segregation of children from the adult world and emphasis on formal schooling, with its age grading (Angelillo, Rogoff, & Morelli, 2003; Heath, 1983; Weisner & Gallimore, 1977; Zukow, 1989).

US and in other nations, given the cultural contact involved in formal schooling as well as in television and other electronic communication (Rogoff, 2003). However, middle-class communities may also sometimes involve children in a fuller range of mature "real-world" activities, within or outside of school. Learning in middle-class communities may not necessarily emphasise preparatory activities out of the context of involvement in mature productive activities. For example, some school "communities of learners" connect with the adult world through joint adult-child productive projects and children's forays into places and issues of importance in the adult world (Brown & Campione, 1990; Dewey, 1915; Moll, Tapia, & Whitmore, 1993; Rogoff, Goodman Turkianis, & Bartlett, 2001).

In sum, the present study contributes observations supporting the thesis that there are important cultural and historical differences in communities' arrangements of young children's inclusion in the adult world or reliance on specialised child-focused activities. Young children in the two middle-class European American communities had limited access to the range of adult work but were often involved in specialised child-focused activities that may help prepare them to participate in school, which in turn is designed to prepare them for eventual involvement in the mature productive activities of their communities. In contrast, in communities like the Efe and San Pedro, where children are more integrated in the mature life of the community, children may seldom be involved in specialised child-focused situations to teach them about the adult world, since they are already a regular part of it. We hope that the findings of this study aid developmental research in getting beyond treating current "mainstream" US practices as normative, instead treating them as cultural patterns of arrangements for children's learning and development.

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The first part of the paper discusses the historical context of the study, tracing the roots of the research back to the early 20th century. It highlights the contributions of several key figures in the field, whose work laid the foundation for the current study. The author notes that while there has been significant progress, there are still many unanswered questions that need to be addressed.

The second part of the paper presents a detailed review of the existing literature. It examines various studies and theories, comparing their findings and methodologies. The author identifies gaps in the current research and suggests areas for further exploration. This section is crucial for understanding the scope and limitations of the current study.

The third part of the paper describes the methodology used in the study. It details the experimental design, the data collection process, and the statistical analysis techniques employed. The author explains how these methods were chosen to best address the research questions and to ensure the reliability and validity of the results.

The fourth part of the paper presents the results of the study. It includes a series of tables and figures that illustrate the data findings. The author discusses the implications of these results, highlighting both the strengths and the limitations of the study. It is clear that the findings have important implications for the field and for future research.

The final part of the paper is a conclusion that summarizes the main findings and offers suggestions for future research. The author emphasizes the need for continued investigation in this area and provides a clear path forward for researchers in the field.

The second part of the paper discusses the theoretical implications of the findings. It explores how the results challenge existing theories and how they might be integrated into a broader theoretical framework. The author argues that the study's findings provide a new perspective on the relationship between the variables being studied, which has not been fully appreciated in the past.

The third part of the paper addresses the practical implications of the research. It discusses how the findings can be applied in real-world settings and what actions should be taken based on the study's conclusions. The author provides several examples of potential applications and discusses the challenges that may arise in implementing these recommendations.

The fourth part of the paper is a discussion of the study's limitations and strengths. The author acknowledges the constraints of the research design and the potential biases that may have influenced the results. However, the author also highlights the strengths of the study, such as the use of a rigorous methodology and the inclusion of a diverse sample.

The final part of the paper is a concluding statement that reiterates the main findings and the author's perspective on the study's contribution to the field. The author expresses a hope that the study will inspire further research and lead to a deeper understanding of the phenomena being studied.