

A Window Into Different Cultural Worlds: Young Children's Everyday Activities in the United States, Brazil, and Kenya

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A powerful means to understand young children's normative development in context is to examine their everyday activities. The daily activities of 79 children (3 years old) were observed, for 20 hr each, in their usual settings. Children were selected from 4 cultural groups: European American and African American (Greensboro, United States), Luo (Kisumu, Kenya), and European descent (Porto Alegre, Brazil), evenly divided by social class. Examining children's naturally occurring engagement in school-relevant activities, both in and out of child care, revealed the importance of ecological context. The variation in activities was not explainable simply by cultural group (including race within the United States) or social class, but by the intersection of culture and class. The developmental implications of these findings are discussed.

As is acknowledged by numerous theorists and researchers, early experiences play highly important roles in children's development. As is also well known, different cultures make available to their young different types of settings and different experiences within those settings, as children are encouraged to engage in some types of activities and discouraged from engaging in others, depending on the values and beliefs of the particular cultural group (Gauvain, 2001). The typically occurring activities in which children engage have been described as cultural practices (Cole, 1995), on the grounds that it is by engaging in these activities that children become competent within their cultural communities.

Psychologists interested in cultural issues need to be concerned with ecological validity, and the most appropriate methods are thus those that involve observing naturally occurring behavior (Greenfield, 1997). As Weisner (1996) argued, the ethnographic method is the best way to "describe and understand the cultural place and its influence on the everyday lives of its members" (p. 307). Although there are multiple interpretations of what constitutes ethnography (Atkinson, Coffey, Delamont, Lofland, & Lofland, 2001), all interpretations share the view that it involves "the study of people in naturally occurring settings, or 'fields' by means of methods which capture their social meanings and ordinary activities" (Brewer, 2000, p. 10). We believe that an ethnographic approach provides more accurate data on children's typical activities than can be obtained by asking parents (e.g., Hofferth & Sandberg, 2001; Lugaila, 2003; Timmer, Eccles, & O'Brien, 1985), and the children are too young to respond on their own behalf, as is often done with older children and adolescents (Larson & Verma, 1999). In this paper, we will present ethnographic data detailing the everyday activities engaged in by 3-year-old children drawn from four different cultural groups: White (European American) and Black (African American) children from the United States, Luo children from

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Kenya, and children from predominantly European backgrounds in Brazil.

Although our methods are comparative, our intention is not to use a "single measuring stick" (LeVine, 1989) to argue that the standards of the industrialized world can be used to evaluate practices in any part of the nonindustrialized world (termed the "majority world" by Kağıtçıbaşı, 1996) or that the typical practices engaged in by members of any one group in a society can be used as the benchmark when discussing the practices of any other group. Instead, our position is that all cultural groups aim to help their children become successful members of their respective communities and therefore provide experiences that allow them to solve the important developmental tasks that they will face. Our methods allow us to observe, in as nonintrusive a way as possible, the settings in which the children from different groups spend their time and the activities in which they engage. One objective of this paper is thus to show the extent to which different groups encourage different types of activities for their young children.

Because one important developmental task in each of these groups relates to schooling, a second objective is to focus specifically on some of the activities that may help children make a successful transition to school (Magnuson, Meyers, Ruhm, & Waldfogel, 2004; Serpell, Baker, & Sonnenschein, 2005; Taylor, Clayton, & Rowley, 2004; Tudge, Otero, Hogan, & Etz, 2003). It is not our assumption that children who engage in more of these activities will necessarily do better once in school. Instead, we believe that culture is likely to be implicated in whether, and the extent to which, children engage in these activities.

One important role that culture plays is that of "provider of settings" (Whiting, 1980), and one setting that may have an important role to play in the encouragement of school-relevant activities is a formal child-care setting. A third objective is thus to examine the extent to which children from these groups attend child care and the impact of attendance on their engagement in these activities.

The theory that is the foundation for this work is "cultural-ecological theory" (Tudge, 2006), a theory adapted primarily from Vygotsky's cultural-historical theory (Tudge & Scrimsher, 2003; Vygotsky, 1987, 1997a, 1997b) and Bronfenbrenner's bioecological theory (Bronfenbrenner, 1993, 1995; Bronfenbrenner & Morris, 1998). At the heart of the theory are the typical everyday activities that occur between developing persons and the people with whom they commonly interact. As Bronfenbrenner wrote about

proximal processes, these typically occurring activities are the "engines of development"; by engaging in them, individuals learn what is expected of them, which activities are considered appropriate or inappropriate, how they are expected to engage in these activities, the ways other people will deal with them, and the ways in which they are expected to deal with others. People initiate activities themselves, and try to draw others into those activities, and it is in the course of these activities and interactions that they try out different roles and observe the roles of others. There are thus clear theoretical grounds for studying the typically occurring everyday activities in which children engage.

As with any theory that falls within the "contextualist" paradigm (Pepper, 1942), no separation of individual, activity, and context is possible. Activities can only occur with individuals to do them, and the activities are necessarily transformed depending on the characteristics of the individuals who are engaged in them. Similarly, activities only are possible within contexts, and the contexts themselves are transformed in the course of individuals' engagement in the activity. Context is partially represented by the settings in which individuals engage in activities. But to understand why children are encouraged to be in some settings and not others, why the settings are established in the ways they are, why adults encourage some activities, discourage others, and never even consider the possibility of other activities can partly be explained by the specific characteristics (values, beliefs, resources, etc.) that individuals possess, but relates even more importantly to the social group of which the individuals are a part.

Social groups are of many different types. Most relevant to this paper are culture and social class. By culture we mean any group that has a shared set of values, beliefs, practices, access to resources, social institutions, a sense of identity, and that passes on the values, beliefs, etc. to the next generation. According to this definition, different societies and different ethnic or racial groups within any society constitute different cultural groups (Tudge, 2006). Psychologists have too often treated ethnic or racial groups as independent variables in research, using simple "social address models" (Bronfenbrenner, 1988), instead of focusing on the core aspects that might serve to explain differences in outcome. As Betancourt and Lopez (1993) argued, this problem can be remedied by adopting a cultural approach. In any given society, groups that differ by ethnicity (i.e., national or tribal ancestry or origin) or race (a label we will use to refer to skin color rather than to imply

a set of genetic differences) are likely to differ in terms of some aspects of their history, their sense of identity, their values, beliefs, and practices, and their access to resources while at the same time sharing aspects with other groups from the same society. This is as true for different ethnic groups in Kenya (all of whom have a shared history of being under British rule, the struggle for independence, and currently living in a country classified as "low income" and "moderately indebted" by the World Bank) as it is for families of European or African descent in the United States. In the United States, Whites and Blacks share a history of political, social, and economic events, although these groups experienced these events in quite different ways. Thus, while currently living in a "high-income" industrialized society and sharing an identity of being Americans (when comparing themselves with people from other societies), these groups also constitute different cultures, as defined above. We therefore view culture not as a unitary but as a multidimensional construct.

We will treat social class separately from culture, although we recognize that a good case can be made for different classes within any society being considered different cultures on the grounds that, as Kohn and others have argued, members of different classes have different values and beliefs about childrearing that stem from their different life experiences and are linked to different ways of raising their children (Kohn, 1979, 1995; Lareau, 2002; Luster, Rhoades, & Haas, 1989; Tudge & Putnam, 1997).

Much of the cross-cultural research on children's development has focused on differences between children living in urban settings in schooled, industrialized countries and children living in rural areas of the majority world. Although access to technology, industry, institutions such as schools, and the extent of city-dwelling are among the markers of culture, we should be careful not to conflate them with culture itself. It is thus important to examine cultural variations in children's experiences that are not confounded with such things as the degree of industrialization. As Hallpike (2004) expressed it, the "failure to compare like with like inevitably produces an exaggerated sense of cultural difference" (p. 14). Another disadvantage of cross-cultural research that tries to "maximize the differences" (Bornstein, Tal, & Tamis-LeMonda, 1991, p. 73) is that researchers have tended to ignore the heterogeneity that exists within societies from the majority world, focusing far more on children from the least developed areas of large and complex societies, children who have had little or no schooling, and who are poor.

Thus, the bulk of the research on children's development in Kenya has emphasized children's experiences in rural areas, with nonschooled or semi-schooled parents. What we know from this research is that, when compared with children growing up in parts of the industrialized world, young Kenyan children are far more likely to be engaged in work, to play with other children rather than adults (including the mother) often while engaging in work, to be taught skills relevant to work rather than schooling, and to engage rarely in conversation with adults (Edwards & Whiting, 1993; Harkness & Super, 1985; LeVine & LeVine, 1963; LeVine et al., 1994; Wenger, 1989; Whiting & Edwards, 1988; Whiting & Whiting, 1975).

Similarly, in the case of Brazil, disproportionate attention (particularly, but not exclusively, from outside the country) has been paid to children and adolescents who spend significant portions of their time on the streets (Alves et al., 2002; Alves, 2004; Campos et al., 1994; D'Abreu, Mullis, & Cook, 1999; Hecht, 1998; Silva et al., 1998), on families with limited or no schooling who live in extreme poverty (Scheper-Hughes, 1985, 1990), or on the cognitive development, particularly the mathematical skills, of children who make a living on the streets (Guberman, 1996; Nunes, Schliemann, & Carraher, 1993; Saxe, 1991; Schliemann, Carraher, & Ceci, 1997). These studies, like their counterparts in Kenya, also show that children spend more time in work, and learn skills more relevant to work than to school, than do children from the industrialized world.

We are not arguing that the experiences of children in rural areas of Kenya or from the streets of Brazil are not important to study. However, it is equally important to consider within-society heterogeneity, for example of region (Nunes & Roazzi, 1999), rural-urban differences (Weisner, 1979), social class (Nucci, Camino, & Sapiro, 1996), and access to schooling. For example, increased schooling in Kenya has led to changes in parent-child relations and in children's activities (Super & Harkness, 1997; Whiting, 1996) and already by the mid-1970s almost 80% of Kenyan 7- to 14-year-old children were enrolled in school (Buchmann, 2000). Similarly, more than 95% of Brazilian children currently attend school, with almost 50% of Brazilian children, from both working- and middle-class backgrounds, attending some type of child-care center before school entry (Freitas, Shelton, & Tudge, 2006).

These issues regarding within-society heterogeneity are not relevant only to countries such as Kenya and Brazil, of course. In the United States, for example, although most of the developmental

research conducted in the United States has focused on White middle-class children (Graham, 1992; Hagen & Conley, 1994; Rogoff, 2003), there are also numerous studies that have examined Black families and children living in poverty (Abell, Clawson, Washington, Bost, & Vaughn, 1996; Billingsley, 1988; Boykin & Allen, 2004; Bradley, Corwyn, McAdoo, & Coll, 2001; Chase-Lansdale, Gordon, Coley, Wakschlag, & Brooks-Gunn, 1999; Hill, 1999; Kelley, Power, & Wimbush, 1992; Luster & McAdoo, 1994; McLoyd, 1990; McLoyd, Cauce, Takeuchi, & Wilson, 2000; Taylor, Chatters, Tucker, & Lewis, 1990).

Although the comparison of middle-class Whites with Blacks in poverty is helpful to show a wide variation in experiences within the United States, research that examines the interrelated influences of both race (a proxy for culture, as we have defined it) and class may be even more useful (García Coll et al., 1996; Howes et al., 1995; Lareau, 2002; Ortner, 1998; Willie & Reddick, 2003). For example, some scholars have shown that middle-class children have far more school-relevant experiences before school than do their working-class counterparts, both White and Black (Dickinson & Tabors, 2001; Hart & Risley, 1995; Heath, 1983, 1986). It may be the case that a greater proportion of Blacks than Whites live in poverty in the United States, but this does not mean that poor Black children's experiences should be conflated with those of all Black children. Instead, greater attention needs to be given to the early experiences of Black children from middle-class or wealthy families.

Child care is just one of many important early experiences. The quality of preschool experiences, in both the United States and Brazil, clearly influences later development (Freitas et al., 2006; Howes, Phillips, & Whitebook, 1992; NICHD Early Child Care Research Network, 2001, 2003; Rossetti-Ferreira, 1998; Shonkoff & Phillips, 2000; Vasconcellos, Aquino, & Lobo, 2003). However, there is little agreement on what counts as quality child care in different cultural contexts, because different cultural groups rarely share the same values and beliefs or, if they do, they weight them differently. Although those who work in child-care settings are likely to have multiple goals, for some, high quality means above all an opportunity to play with other children and with different types of objects; for others, high quality must include opportunities for getting the types of experiences that should make the transition to school easier; and for yet others, the quality of a center should be judged by the extent to which it is a safe and caring place for children to spend the day (Brauner, Gordic, & Zigler, 2004).

There are thus two prevailing types of contrasts. One is between children from highly educated families from the industrialized world and rural non-schooled families from the majority world (much of the cross-cultural literature) and the other between middle-class White children and Black children living in poverty (most of the work on Black-White differences in the United States). Our concern is that these contrasts have a conflated cultural group with individuals having some specific types of experiences. What is needed, we think, is a more ecologically valid approach to culture, whether across different societies or within a single society (examining race or class differences, for example), an approach that explores children's everyday activities across groups that are not maximally dissimilar. We believe that our approach is ecologically valid, given the methods that we used. Having described these methods, we will provide the study hypotheses.

Methods

Participants

Participants consisted of 79 preschoolers drawn from four cultural groups from a single city in each of three societies: the United States, Kenya, and Brazil. Cities were chosen that had a wide range of occupational possibilities, cultural amenities, and educational opportunities, including at least one university. This allowed us to look at a minimum of two groups in each city: a middle-class group in which parents had a minimum of a college degree and worked at a professional occupation, and a working-class group in which parents, while educated, did not have a college degree and whose occupational status level was no higher than that of the skilled labor sector (Hollingshead, 1975).

Two of the cultural groups (one White, with 20 children, of whom 11 were girls, the other Black, with 19 children, of whom 8 were girls) were from Greensboro, NC, USA. Greensboro is a city of approximately 200,000 inhabitants, of which about 65% classify themselves as White, and slightly over 30% as Black. The city's history is heavily linked to issues of race and the civil rights movement, including the Quakers establishing a branch of the antislavery Underground Railroad and the first successful sit-in of the Civil Rights movement at the local Woolworth's. Although some areas of the city are integrated by both race and class, there is still a good deal of neighborhood segregation, with large parts of the eastern side of Greensboro, starting from the railway tracks that intersect the city, populated al-

most entirely by Blacks. The White middle-class children were recruited from a community that featured large houses with expansive lawns, whereas the White working-class children were from homes, much smaller in size and closer to their neighbors, in a community adjacent to one of the major textile mills that used to dominate the city. The Black middle- and working-class children were recruited from two neighborhoods in the eastern part of the city. This part of the city does not feature neighborhoods that are as easily distinguished by class as in the rest of the city; families classified by education and occupation criteria as middle class were mixed among those classified as working class. As in the White communities, however, the Black middle-class homes were typically larger, two-story, homes with more spacious yards, whereas the homes of the working-class families were generally smaller one-story structures (Doucet, 2000; Tudge, 2006). By including equal numbers of middle- and working-class Blacks and Whites, we were able to ascertain whether variations in children's activities were linked to culture (for which race is a proxy in this study), social class, or (as we thought more likely) the intersection of culture and class.

The third cultural group was from Kisumu, Kenya, consisting of 20 ethnic Luo children, all of whom were Black, and of whom half were girls. Kisumu also has a population of approximately 200,000, and is situated on the shores of Lake Victoria. Kisumu, originally named Port Florence, was founded in 1901, was formally designated a city to mark the century anniversary of its founding, and is now the major administrative, commercial, and industrial center for western Kenya. Agriculture is the primary industry, with textiles, sugar and molasses production, and fishing also found in the region. Although a number of different ethnic groups live in the city, the large majority are Luo. Close to Lake Victoria, the city has asphalt roads and six- or eight-story buildings, with a bustle of cars and bicycles, but in other areas the roads are gravel or dirt, and one of the main modes of transport is the bicycle taxi. Kisumu is divided into "estates," each of which are approximately one square kilometer in size, as well as some slums in which people live under very difficult circumstances. The estates are differentiated by social class, with some estates having larger and better-appointed houses or apartments and being home primarily to families with college education and professional occupations. These houses have three or four bedrooms, two or more bathrooms, a mixture of carpets and tiles on the floors, and paintings of scenic views are most likely to be found on the walls.

Other estates feature smaller and simpler residences, and are occupied by working-class families who have less privacy than their middle-class counterparts. The houses in these working-class estates typically feature a single bedroom, living room, and bathroom. Larger families often have the older children sleeping in the living room (or sometimes in the kitchen), whereas the younger ones sleep with their parents in the bedroom. The floors tend to be of cement, with no covering, and the walls feature family pictures, calendars, and sometimes cuttings from the newspapers (Odero, 1998; Tudge, 2006).

The fourth group was from Porto Alegre, Brazil, and included 20 children of predominantly European background, nine of whom were girls. Porto Alegre is the capital city of the southern-most state in Brazil, and much larger than the other cities, with almost 1,400,000 inhabitants. As a village, it dated from 1742, but the city grew rapidly in the nineteenth century when the Brazilian government actively recruited immigrants (primarily from Germany, Italy, and Portugal) to move there. Descendants of the indigenous population are found in Porto Alegre, but they constitute an extremely small minority, and only a small minority are people who, in the United States, would be considered Black. As in Kisumu, however, the city features a wide range of contrasts. Many people are wealthy enough to frequent the large shopping centers filled with fine restaurants and boutiques with fashionable clothes. They drive to these centers in expensive cars—but encounter the poor of the city at many traffic lights, where children sometimes juggle or offer to wash windshields and then ask for money. The city is clearly divided by social class, with communities of middle-class apartment complexes (all enclosed within tall metal fences and securely locked gates, typically patrolled by security guards) situated in fairly close proximity to much poorer neighborhoods and slums (known as *vilas*), mostly with small houses in close proximity. However, Porto Alegre is situated in a region of the country that is quite economically advanced, by the standards of the rest of the country, and the differences between rich and poor in Porto Alegre are not as marked as they are in many parts of the country (Rebhun, 2005; Tudge, 2006). As was the case with the other cultural groups, we wanted to be able to judge whether the effects of social class in a Brazilian city were different from those in a Kenyan or American city, specifically on the types of settings in which children were situated and the activities in which they engaged.

The cultural groups were thus chosen to contrast "like with like" (Hallpike, 2004), using city dwellers

evenly distributed by social class. Any differences between Blacks and Whites in Greensboro cannot thus be explained by the fact that one group is living in poverty and the other group in relatively wealthy circumstances. Similarly, any differences between the American participants and those from either Kenya or Brazil cannot be due to contrasts between middle-class Americans and rural and minimally schooled families in Kenya or children living on the streets in Brazil. Instead, to the extent that group differences are found, they are likely to reflect normative cultural variations in what is deemed appropriate for young children. This is the essence of an ethnographic approach—to show the influence of cultural place on the daily activities of its inhabitants (Weisner, 1996).

In Greensboro and Kisumu, we used a community-based approach to recruitment, in which we selected communities, approximately 2 square miles in size, that were likely to be homogeneous by race (in Greensboro), ethnicity (in Kisumu), and social class background of parents. "Community" was defined as an area of the city that was separate from adjacent areas by a major road, railway line, or other fairly obvious marker of a boundary. From each community, we recruited as many as possible of the families with a child of the relevant age from those families that met our requirement of social class and ethnic/racial background. A list was generated from the birth records of all children born in that area between 2 and 4 years earlier. In Greensboro, letters were sent to all families who still appeared to be living in the area (information derived from the tel-

ephone book and/or city records), and were followed by a screening call. In Kisumu, the third author went to the homes individually. In order to participate, the family still had to be living in the area, and had to fit Hollingshead (1975) education and occupation criteria. In Kisumu, not enough families met our criteria and nine families (of which four were middle class) were recruited through contacts with the families that had agreed to participate.

The situation was different in Porto Alegre. In that city, the families were part of an ongoing longitudinal project, started before the children were born (Piccinini, Tudge, Lopes, & Sperb, 1998; Piccinini, Silva, Ribeiro, Lopes, & Tudge, 2004). Recruitment was primarily from hospitals and prenatal clinics, designed in such a way as to get families from a range of social class backgrounds. Of these families, 57 were being followed by the time their children had reached 3 years of age, at which time nine families no longer wanted to participate. Of the remaining families, approximately half were observed as described below, and the remaining families participated in a shorter observational study. Full details on the study participants are included in Table 1.

Observations

Families were asked to keep their daily routines unchanged as much as possible during the observation period. Each child was observed, wherever he or she was situated (home, child-care center, at friends' homes, in public spaces such as shops,

Table 1
Participant Characteristics

Characteristics	Greensboro White families	Greensboro Black families	Kisumu families	Porto Alegre families
Families contacted	46	50	25	56
Did not meet requirements	12	15	0	27 ^a
Declined to participate (% rejected)	14 (30.4%)	16 (32%)	5 (20%)	9 (16%)
Recruited	20	19	20	20
Middle-class participants	11	9	10	9
Age of children (<i>SD</i>)	36.6 (7.0)	38.3 (5.7)	39.3 (8.1)	37.0 (1.1)
Hollingshead, <i>M</i> (<i>SD</i>)	52.1 (8.0)	50.2 (4.3)	57.3 (4.7)	55.2 (5.4)
Working-class participants	9	10	10	11
Age of children (<i>SD</i>)	36.9 (4.5)	39.8 (6.4)	40.8 (5.5)	36.1 (5.7)
Hollingshead, <i>M</i> (<i>SD</i>)	28.9 (4.8)	28.6 (4.0)	21.6 (4.4)	24.6 (6.9)
Observed in child care	13	7	7	16
Middle class	9	2	6	8
Working class	4	5	1	8

Note. ^aA total of 25 families were chosen for the 20-h observations, of whom 5 could not be clearly placed into either middle-class or working-class categories and whose data have therefore not been used.

parks, etc.), for 20 hr over the course of 1 week. The final 2 hr were videotaped, rather than coded live, and are not included in these analyses. Observation times were set by the observer in such a way that the equivalent of one entire waking day was covered. One observation period was scheduled starting from before the child woke, another period scheduled for the end of day, and the remaining periods spread over the remaining hours. Observations were continuous in 2- to 4-hr blocks, but activities were time sampled during 30-s "windows" every 6 min, a time-allocation method similar to that used by cultural anthropologists (e.g., Johnson, 1983; Munroe, Munroe, & Michelson, 1983). A wireless microphone, attached to the child, allowed the observer to listen from afar, and the passage of time was signaled (inaudibly to people other than the observer) by an endless-loop recording. During the intervening 5½ min, observers coded the activities and wrote field notes describing the activities. This yielded a total of approximately 180 observations for each child ($M = 180.63$, $SD = 6.1$).

We observed for as long as we did, and in the way that we did, for several reasons. First, these methods fit appropriately with the theory on which the study was based (Tudge & Hogan, 2005). Second, we wanted to be within the "cultural place" (Weisner, 1996) of the children, making no attempt to alter the ongoing activities in which they were involved with their typical social partners in the settings in which they were commonly situated. Only by doing this, we believed, could we get a sense of children's normative experiences. Our assumption was that, in the communities where we collected the data, some children would spend more time in some settings

than they would in others and we were not interested in privileging one setting more than another. An ethnographic approach is one that is based on the view that cultural groups vary in the types of settings that they make available to their children as well as the activities that they encourage or discourage. It is therefore important to follow each of the children in all of the settings they frequent to get a reasonable sense of the children's typically occurring activities. We recognized that the very presence of the observer would in some ways influence what we were observing, but tried to minimize that influence by observing for long stretches of time and making no attempt to alter either the activities or the interactions the children had with others.

Children were coded as being "involved in" the activities if they were physically participating (e.g., playing a game involving shapes or looking at a book) or were observing (e.g., watching others play or listening to another child being read to). For a child to be coded as engaged in an activity, the child had to appear to be focused on that activity. For example, if a child were asked to take silverware to the table, he or she would be coded as engaged in a type of work. The activity could also be coded as engagement in an academic lesson if, for example, someone pointed out to the child that four people were going to be eating and so he or she would need four forks. A child who was playing with the silverware would be coded as being engaged in play.

A list of the major categories of activities (lessons, work, play, conversation, and other), some subcategories, and their definitions appears as Table 2. (For full details of the coding scheme, refer to Tudge, Sidden, & Putnam, 1990.) It was possible for a child

Table 2
Definitions of Major Activities

Lessons	Deliberate attempts to impart or elicit information relating to:
Academic	School (spelling, counting, learning shapes, comparing quantities, colors, etc.)
World	How things work, why things happen, safety
Interpersonal	Appropriate behavior with others, etiquette, etc.
Religious	Religious or spiritual matters
Work	Household activities (cooking, cleaning, repairing, etc.), shopping, etc.
Play, entertainment	Activities engaged in for their own enjoyment, including:
Academic	Play with academic object (looking at a book, playing with shapes, numbers, etc.), with no lesson involved
Pretend	Play involving evidence that a role is being assumed, whether prosaic (mother shopping), mythical (super-hero), or object (animal)
Toys	Objects designed specifically for play or manipulation by children
Other play	Objects not designed specifically for children, such as household objects, natural objects, or no object at all (rough and tumble, chase)
TV, entertainment	Watching TV, listening to radio, going to a ball-game, circus, etc.
Conversation	Talk with a sustained or focused topic about things not the current focus of engagement
Other	Activities such as sleeping, eating, bathing, etc. and those that were uncodable

to be coded as being involved in more than one activity simultaneously. All observations were conducted by individuals from the same cultural group as the participants and who were trained either in Greensboro or in Porto Alegre. Observer training involved live observations of children from families with a preschool-aged child and from videotaped observations of these children, with discussion of disagreements until agreement was reached. Reliability was assessed using videotaped observations both before and during data collection. Coders had to attain and retain a minimum κ of .75 on all codes.

Hypotheses

Four hypotheses were derived from our theory and from previous literature. First, we hypothesized that children in the different cultural groups would engage to different extents in the major categories of activities (lessons, work, play, and conversation) and that within each cultural group, there would be variations by social class. Second, we hypothesized that children in the cultural groups would engage to different extents in the sub-set of activities that we thought were most relevant to schooling (i.e., academic, interpersonal, and world lessons, pretend play and play with academic objects, and conversation with adults) and, within each group, that middle-class children would be involved in each of these activities to a greater extent than would working-class children. The third hypothesis was that children who attended child-care centers would engage in more school-relevant activities than those who did not, and that we would again find differences both by cultural group and by social class. Our fourth hypothesis focused solely on those children who attended formal child-care centers; we predicted that these children would engage in more school-relevant activities because they attended child care.

To test these hypotheses, we used standard inferential statistical analyses, and report significant (i.e., $p < .05$) findings. To account for heterogeneity of variance across our groups, we submitted our data to arcsine transformation. The transformed data were used in two separate 4 (culture: Greensboro White, Greensboro Black, Kisumu, Porto Alegre) \times 2 (class: middle class, working class) multivariate analyses of variance (MANOVA) to test the first two hypotheses of interest, regarding children's involvement in (1) the major categories of activities (lessons, work, play, and conversation) and (2) the subset of school-relevant activities. For the third hypothesis, we used a 4 (culture) \times 2 (child care: attenders, nonattenders)

MANOVA to test children's engagement in school-relevant activities as a function of attendance in formal child-care. When the relevant multivariate and univariate statistics were significant (reported in the tables), post hoc Bonferroni's tests of specific contrasts were run and only significant ($p < .05$) results reported in the text. The fourth hypothesis, focusing solely on children enrolled in child care, comparing their activities inside and outside of child care, was tested by matched t tests.

However, one should be cautious about generalizing from these groups of children to the larger populations from which they might be assumed to be drawn. The children were not selected randomly from given populations, but were chosen quite explicitly to meet certain requirements—to be city dwellers, from specific racial or ethnic groups, and to be clearly distinguishable by social class. We therefore do not wish to imply that our findings can be generalized to children living in different regions of their respective countries, to children living in rural areas, or to children from different racial or ethnic groups. On the other hand, the selection process was designed to include as many as possible of the families with children of the appropriate age from within the communities we chose, and the acceptance rates were good enough to make us reasonably confident that these groups are not unrepresentative of similar types of families living under similar circumstances elsewhere. We have thus used inferential statistics as a rough guide to those differences that are large enough to be worth discussing ("significant" differences), rather than because we wish to infer from samples to the populations from which they were randomly drawn.

Instead, we will focus more on "meaningful" differences—those likely to have a meaningful effect in the lives of the children concerned. To do this, we will generalize from our time-sampled data (90 min over the 18 hr of observation, as data were gathered only for a 30-s period every 6 min). Given this time-sampling method, there is no reason to believe that we cannot generalize the activities that we saw during times sampled to the remaining hours that we were with the child. Extrapolating in this way transforms what may appear to be relatively small differences into the types of "meaningful differences" described by Hart and Risley (1995). These differences are meaningful in a second sense, too, one that links to Bronfenbrenner's concept of proximal processes, or what individuals do on a regular basis in their everyday activities. When one group encourages its children to engage in work, it is in effect saying that this is what children need to do in order

to become successful members of that group; when another group encourages its children to prepare explicitly for school, the message is that schooling is important in order to become successful. It is for this reason that proximal processes constitute the "primary engines of development" (Bronfenbrenner & Morris, 1998, p. 996).

Results

Activities

Although we gathered, on average, 180 observations on each child, there was some variation in observations, as shown in Table 3. We have therefore expressed all the data proportionally to the number of observations. The children in each of the groups were observed most often engaging in play, and much less often in the remaining activities (lessons, work, and conversation). In this paper, we will not discuss the various types of play in which the children engaged, although it is worth mentioning that whereas children in most groups were most often observed playing with toys, in Kisumu the children were most likely to be observed playing with objects from the natural world or with objects not designed for their play. We also will not discuss the other activities, such as eating, sleeping, and being dressed,

in which they engaged as these were not the focus of our attention.

Looking first at culture-wide differences, children in Porto Alegre engaged in significantly (*i.e.*, $p < .05$) fewer lessons than did the White children from Greensboro and the children from Kisumu. Children from Kisumu were involved in significantly more work than were children from the other three groups, and Black children in Greensboro were more involved in work than were children in Porto Alegre. In terms of conversation, White children in Greensboro were significantly more likely to be observed in conversation than were their Black counterparts.

However, independent of cultural group, clear social class differences were also found in the extent to which children were involved in their various activities. For example, middle-class children were more involved in lessons than were working-class children, even in Porto Alegre where the children, in general, engaged in far fewer lessons than in the other two cities. We also found significant culture by class interactions for work and conversation, with working-class children from Kisumu observed engaging in work almost twice as frequently as were children in any other group, and White middle-class children from Greensboro engaged in conversation more often than were any other group. The first hypothesis was thus statistically supported.

Table 3
Engagement in Main Groups of Activities, Mean % of Observations and SDs

Communities	Lessons		Work		Play		Conversation		N
	M	SD	M	SD	M	SD	M	SD	
Greensboro, U.S., White	6.56	3.7	7.82	4.0	53.22	14.6	10.85	6.3	20
White (middle class)	7.52	4.5	7.49	5.3	45.52	11.4	13.50	6.9	11
White (working class)	5.38	1.9	8.24	1.9	62.64	12.7	7.61	3.6	9
Greensboro, U.S., Black	4.80	3.0	9.86	6.0	62.01	11.3	6.31	5.4	19
Black (middle class)	6.02	3.4	10.75	7.7	62.21	12.7	5.77	5.3	9
Black (working class)	3.70	2.1	9.06	4.3	61.83	10.5	6.80	5.6	10
Kisumu, Kenya	6.42	2.9	14.97	8.6	57.36	10.4	7.11	4.5	20
Kisumu (middle class)	7.33	3.3	9.11	3.4	59.28	8.2	6.00	3.8	10
Kisumu (working class)	5.50	2.2	20.83	8.2	55.44	12.4	8.22	5.1	10
Porto Alegre, Brazil	2.50	1.8	5.31	2.8	58.67	11.8	8.58	3.3	20
Porto Alegre (middle class)	3.58	1.7	5.55	3.0	55.25	10.6	9.94	3.3	9
Porto Alegre (working class)	1.62	1.5	5.10	2.6	61.47	12.5	7.47	3.0	11
Total	5.07	3.3	9.48	6.7	57.76	12.3	8.24	5.2	79

Note. MANOVA. Culture $F(12, 210) = 5.72^{***}$; SES $F(4, 68) = 7.57^{***}$; Culture \times SES $F(12, 210) = 2.89^{***}$.

Significant Univariate Statistics.

Lessons: Culture $F(3, 71) = 8.31^{***}$; SES $F(1, 71) = 10.7^{**}$.

Work: Culture $F(3, 71) = 13.10^{***}$; SES $F(1, 71) = 5.18^*$; Culture \times SES $F(3, 71) = 7.50^{***}$.

Conversation: Culture $F(3, 71) = 2.98^*$; Culture \times SES $F(3, 71) = 2.85^*$.

* $p < .05$, ** $p < .01$, *** $p < .001$.

How meaningful are these differences? The most striking difference was the amount of work in which the working-class children in Kisumu were involved, either as an active participant or closely observing someone else working, compared with their counterparts in all other groups. On average, they were observed in work in almost 21% of the observations (a total of 37.5 observations during the 90 time-sampled minutes). A typical example is that of Brendah Aketch (a pseudonym, as are all subsequent names), a girl from a working-class family, *who is watching one of her older sisters chopping vegetables to prepare a meal. Brendah asks if she can help, and is given a blunt bread-knife so that she can participate in the chopping. Later on Brendah is watching her mother clean the house when the latter asks Brendah if she would like to help, and sends her to get the dirty clothes, which Brendah first rinses and then brings to her mother for them to be hung* (Field Note 1402). The middle-class Kisumu children were also involved in work, but to no greater extent than children in any of the other cultural groups, a meaningful finding of "no difference" given the prevailing literature.

It is also meaningful that the middle-class White children from Greensboro were twice as likely to engage in lessons as were their working-class Black counterparts (7.5% vs. 3.7%). The difference between 7.5 and 3.7 may appear minimal, but these percentages translate to 13.5 versus 6.7 lessons every 90 min. Assuming that 3-year-olds are awake for 14 hr a day, this would mean 121 lessons for one group of children, 60 for another group, over the course of one day, a substantial difference. It is essential to point out, however, that the middle-class Black children from Greensboro did not engage in significantly fewer lessons than did their White counterparts, again demonstrating that the experiences of one subculture should not, implicitly or explicitly, be conflated with those of the entire cultural group.

The same argument can be made in the case of conversation, which we defined as talking about things that were not part of the ongoing activity, but more sophisticated language referring to the past or future. Middle-class White children in Greensboro were more involved in conversation than were children from any other group. *Andy, a middle-class White boy, is watching the news on TV with his father. The news is showing images of the first US-Iraq Gulf war. His mother, shortly after, is helping him brush his teeth and talking to him about what he's seen on TV, and how he's learning about what's happening in the world. When they're done, they go into his bedroom where he starts playing with one of his "ninja turtles," and he*

explains to his mother about how the turtles use swords to hurt "the bad guys" (Field Note 0101). The middle-class White children were seen conversing with someone else more than 24 times during the 90 min of total observation, the equivalent of 218 times during a 14-hr day. Extrapolating similarly, the working-class White children, by contrast, engaged in conversation 123 times, middle-class Black children 93 times, and working-class Black children 110 times. As Hart and Risley (1995) demonstrated, such a difference in extent of conversation between the middle-class Whites and the other three groups is likely to be meaningful for the children's development.

School-Relevant Activities

Our second hypothesis focused on those activities that we believed might be particularly relevant for school, namely their lessons, their pretend play, their play with academic objects, and their engagement in conversation that featured adults (see Table 4). Across all groups, the children engaged in one or other of these activities in approximately 19% of our observations.

Looking first at the four cultural groups, the children in Kisumu engaged in significantly more academic lessons than did White children in Greensboro and the children in Porto Alegre, White children in Greensboro were involved in significantly more interpersonal lessons than were children in any other group, and the children in Porto Alegre were involved in significantly fewer such lessons than were children in any other group. Children from Kisumu were significantly more likely to be observed playing with academic objects than were those from Porto Alegre, and White children from Greensboro were significantly more likely to be involved in conversation with adults than were their counterparts in the Black community of Greensboro and in Kisumu. Our hypothesis about variations across cultural groups was thus supported for these activities, but not for lessons about the world or pretend play.

As hypothesized, across all cultural groups, middle-class children were significantly more likely than their working-class peers to be involved in academic lessons and play with academic objects. The mean differences do not appear large, but once the time-sampled data are extrapolated across the entire day, one sees differences that are likely to be meaningful in the children's lives. In the case of academic lessons, for example, the Luo middle-class children could be expected to participate in over 70 such

Table 4
Engagement in School-Relevant Activities, Mean % of Observations and SDs

	Academic lessons		Interpersonal lessons		World lessons		Pretend play		Academic play		Converse with adults		N
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	
Communities													
Greensboro white	1.51	2.2	2.88	1.3	2.17	1.6	3.48	3.0	4.84	4.1	10.08	5.7	20
Middle class	2.19	2.7	2.68	1.0	2.66	1.9	3.71	3.1	5.26	3.9	12.51	6.4	11
Working class	0.68	0.9	3.12	1.6	1.57	0.8	3.20	3.0	4.33	4.5	7.11	2.9	9
Greensboro Black	1.58	1.7	1.50	1.2	1.63	1.5	1.58	2.0	3.94	4.2	5.28	4.2	19
Middle class	1.99	1.9	1.72	1.3	2.19	1.8	1.86	2.4	4.21	4.1	5.30	5.4	9
Working class	1.20	1.4	1.31	1.0	1.13	0.9	1.33	1.6	3.69	4.4	5.26	2.9	10
Kisumu	3.11	2.7	1.89	1.0	1.42	1.1	3.08	3.6	5.00	3.8	4.92	4.0	20
Middle class	4.50	2.7	2.17	1.0	0.67	0.7	4.17	4.1	6.67	3.1	4.06	2.4	10
Working class	1.72	2.1	1.61	1.0	2.17	1.0	2.0	2.8	3.33	3.9	5.78	5.2	10
Porto Alegre	0.67	0.8	0.39	0.4	1.44	1.4	3.39	3.9	1.75	2.9	7.56	3.0	20
Middle class	0.99	1.0	0.61	0.4	1.98	1.6	3.46	2.9	3.52	3.6	8.89	2.7	9
Working class	0.40	0.6	0.20	0.4	1.01	1.0	3.33	4.8	0.30	0.7	6.46	2.9	11
Total	1.72	2.1	1.67	1.4	1.67	1.4	2.90	3.3	3.88	3.9	6.98	4.7	79

Note. MANOVA: Culture $F(18, 204) = 4.85^{***}$; SES $F(6, 66) = 2.83^*$; Culture \times SES $F(18, 204) = 1.76^*$.

Academic lessons: Culture $F(3, 71) = 6.0^{***}$; SES $F(1, 71) = 11.47^{***}$.

Interpersonal lessons: Culture $F(3, 71) = 19.68^{***}$.

Lessons about the world: Culture \times SES $F(3, 71) = 4.58^{**}$.

Play with academic objects: Culture $F(3, 71) = 2.90^*$; SES $F(1, 71) = 5.75^*$.

Conversation: Culture $F(3, 71) = 5.93^{***}$; Culture \times SES $F(3, 71) = 2.73^*$.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 5
Observations in Different Settings, Mean % of Observations and SDs

Communities	In and around home		In others' home		Formal child care		Public space		N
	M	SD	M	SD	M	SD	M	SD	
Greensboro, white	66.80	17.1	6.86	12.6	17.53	17.6	8.81	8.9	20
Middle class	66.38	15.4	4.71	6.8	20.37	16.3	8.53	9.3	11
Working class	67.31	19.9	9.49	17.5	14.06	19.4	9.14	8.9	9
Greensboro, Black	49.68	22.6	21.25	25.1	14.44	20.6	11.11	9.6	19
Middle class	56.91	22.3	17.87	23.1	10.73	21.3	11.17	11.4	9
Working class	43.17	21.9	24.29	27.6	17.77	20.5	11.05	8.4	10
Kisumu	78.64	14.4	9.31	11.2	7.42	10.5	4.56	6.3	20
Middle class	74.56	16.6	9.50	13.5	12.61	11.1	3.33	5.4	10
Working class	82.72	11.0	9.11	8.9	2.22	7.0	5.78	7.2	10
Porto Alegre	60.94	20.9	3.14	8.6	31.78	21.1	7.17	8.1	20
Middle class	56.11	17.5	1.60	4.2	37.96	18.3	4.32	6.6	9
Working class	64.90	23.3	4.39	11.0	26.72	22.6	4.49	4.5	11
Total	64.20	21.3	10.0	16.7	17.83	19.7	7.17	8.1	79

lessons, compared with 28 for their working-class counterparts. In Greensboro, the equivalent numbers for middle-class Whites (35) and middle-class Blacks (32), while much lower than those for the Luo middle-class children, are far higher than those for their working-class counterparts in Greensboro (11 and 19). The middle-class children in Porto Alegre could be expected to engage in only 16 academic lessons, but this is still far more than the 6.5 such lessons of their working-class peers. An even larger difference was found for the Porto Alegre children in terms of playing with academic objects, with extrapolated figures of 57 for the middle-class children, and only 5 for the working-class children.

Our hypothesis about class differences was not supported in the case of the remaining activities, however, although one culture by class interaction was significant. Whereas middle-class children in both Greensboro groups and in Porto Alegre were more likely to be involved in lessons about the world than were their working-class counterparts, the situation was reversed in Kisumu, with working-class children far more likely to be involved in such lessons than were the children from middle-class homes.

Attendance in Child Care

Our third hypothesis had to do with the extent to which the children's activities were related to whether or not the children attended a formal child care. On average, the children were in and around

the home in 30% of our observations, more than in child care (17%), someone else's home (10%), or in a public space (7%). However, as shown in Table 5, there was a good deal of within- and between-group variability. The children in Kisumu spent more time around the home than did those in Porto Alegre and the Black children in Greensboro, and White children also spent more time around the home than did their Black counterparts. Black children in Greensboro, by contrast, were more likely to spend time at someone else's house than did their White counterparts or children from Porto Alegre, and the latter were almost twice as likely to have been observed in child care (32% of the observations) than were children from any other group.

The children were not evenly distributed by attendance in child care (see Table 1), and only one working-class child from Kisumu and two middle-class Black children from Greensboro were observed in a formal center. We therefore collapsed the social-class data for the analyses reported next. As can be seen in Table 6, those children who attended a formal child-care setting were significantly more likely than those who did not to engage in academic lessons, in interpersonal lessons, and play with academic objects. However, although children in the other three cultural groups who spent time in child care were a good deal more likely than their counterparts who did not to be involved in this type of lesson, children in Porto Alegre who spent time in child care were somewhat less likely (although not significantly) to engage in academic lessons than those who did not. Our third hypothesis was thus only partially supported.

Table 6
 Engagement in Activities, Not Attending Versus Attending Child Care (CC), Mean % of Observations and SDs

Communities	Academic lessons		Interpersonal lessons		World lessons		Pretend play		Academic play		Conversation with adults		N
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	
White nonattenders	0.39	0.3	2.23	1.6	1.75	0.8	3.38	3.2	3.33	4.2	8.15	4.6	7
White attend CC	2.11	2.5	3.22	1.0	2.40	1.9	3.53	2.9	5.65	4.0	11.12	6.1	13
Black nonattenders	1.32	1.8	1.30	1.2	1.46	1.6	1.36	1.7	2.76	2.1	4.19	2.2	12
Black attend CC	2.02	1.3	1.85	1.0	1.94	1.4	1.97	2.6	5.94	6.1	7.15	6.1	7
Kisumu nonattend	1.37	1.1	1.54	0.9	1.75	1.2	2.48	3.4	3.89	3.8	5.38	4.7	13
Kisumu attend CC	6.35	1.5	2.54	0.8	0.79	0.7	4.21	4.1	7.06	3.1	4.05	2.6	7
POA nonattenders	0.83	0.7	0.14	0.3	1.39	0.7	0.97	1.1	0.83	1.7	6.67	2.4	4
POA attend CC	0.62	0.9	0.45	0.5	1.46	1.5	3.99	4.2	1.98	3.1	7.78	3.1	16
Total nonattenders	1.10	1.3	1.44	1.2	1.61	1.2	2.11	2.7	3.07	3.3	5.67	3.9	36
Total attend CC	2.23	2.6	1.86	1.4	1.71	1.6	3.56	3.5	4.56	4.4	8.08	5.1	43

Note. MANOVA: Culture $F(18, 204) = 5.57^{***}$; Attend Child Care $F(6, 66) = 6.45^{***}$; Culture \times Attend $F(18, 204) = 1.75^*$.

[†]Significant Univariate Statistics for Attending Child care and Culture \times Attending Child care.

Academic lessons: Attend child care $F(1, 71) = 22.39^{***}$; Culture \times Attend $F(3, 71) = 8.99^{***}$.

Interpersonal lessons: Attend child care $F(1, 71) = 8.59^{**}$.

Play with academic objects: Attend child care $F(1, 71) = 7.30^{**}$.

* $p < .05$, ** $p < .01$, *** $p < .001$.

The meaning of attending a formal child-care center appears to be different in each of the cities. In Greensboro, both the Black and White children who attended formal child-care were significantly more likely to be involved in academic lessons, interpersonal lessons, to play with academic materials, and to engage in conversation with adults than children who did not attend. The differences in engagement between attenders and nonattenders do not appear large. However, if we extrapolate these numbers across a 14-hr waking day, these numbers translate to approximately 180 times during a single day being involved in some type of lesson or conversation for children who attended child care compared with only 100 such types of interaction for nonattenders. Similarly, over a single day, the Black children who attended child care would be expected to play with a school-relevant object, including looking at books, almost 100 times, compared with only 45 times for nonattenders. The White children who attended child care would be involved, similarly extrapolated, in 266 such interactions, compared with 174 for those who did not attend, and would engage with an academic object over 90 times, compared with only 54 times.

Many of the children in Greensboro, particularly those from the Black communities, spent their time with a grandmother, or were in the company of a paid child-minder who typically looked after several children (family day-care), an option that some Black parents may have considered more beneficial for the child and/or more affordable. For example, *Andrea, a Black working-class child, spent a good deal of her time (almost half of the 18 hr that we observed her) in a child-minder's home, generally with her 2-year-old sister and two or three other young children. The children spent most of their time playing with the blocks and other toys that were available, eating snacks, and watching the television, which was set to the daytime soap opera the first afternoon we observed Andrea and to cartoons the following morning. The main lessons that the children got were on the importance of sharing the toys and not hurting one another. Benjamin, a middle-class Black boy, was at his regular baby-sitter's house the first morning that we observed him. He was alone with her, until one of her adult friends arrived, and spent his time playing with some cars and a puzzle, while watching cartoons on TV* (Field Notes 0405 and 0307).

These differences in the White and Black children's experiences as a function of attendance in child care in Greensboro pale, however, by comparison with those of the Kisumu children. Those who attended child care could be expected, extrapolating from the 90 time-sampled minutes, to have over 100

academic lessons and to play with academic objects over 114 times during a single day, compared with 22 academic lessons and 63 times playing with academic objects for those who did not attend. Expressed another way, the Luo children were involved in either an academic lesson or were observed playing with an academic object in no fewer than 35% of our observations of them in child care, and in a further 8% of the observations in this setting were involved in an interpersonal lesson. *Fredah, a middle-class Luo girl, is in her preschool class one Friday morning a little after 8. The teacher finishes writing some letters on the board, and gets the children to say their names. The alphabet gradually appears, and the children have to repeat it. Fredah does so, while playing with her fingers for a while, but also watching two other children playing with each other's hands, all the while going over the alphabet. The teacher continues with the lesson for almost an hour, occasionally admonishing the children for not sitting straight. The children continue to repeat letters, but also play with things that are available to them—one child with his shirt, Fredah waving her hands in the air, looking out of the window from time to time, and toward the end of the hour telling one of her class-mates to take his feet from her chair* (Field Note 1304). Interestingly, Gesila, the only working-class child to spend time in a child-care center, engaged in the same proportion of academic lessons and playing with academic objects as did her middle-class peers.

In Porto Alegre, the situation was completely different; attending formal child-care had very little impact on school-relevant activities, which did not feature heavily in these Brazilian children's lives. Again extrapolating from the 90 time-sampled minutes, children who attended child care would be expected to engage in just 10 academic lessons (41 lessons of all types) and play with academic objects 32 times. They would be more likely, however, to engage in pretend play (65 times over the course of a day) and converse with adults (126 times). There were no meaningful differences for those who did not attend child care in the total number of lessons one could expect over the course of a day (38, of which 13 were academic lessons), although they would be less likely to play with academic objects (13 times over the day), engage in pretend play (16 times), and converse with adults (108 times) over a full day.

A typical example is that of Mariana, a working-class girl from Porto Alegre, observed at her child-care center one afternoon. *At the start of the observational period, one of her teachers is reading a story that the children are asked to illustrate as she reads. Mariana continues to do that for 10 min. However, her time is*

occupied during the remainder of the observation in dancing to music, playing outside on a slide, in a doll's house, on a spinning wheel with two other children, with a little stove, and in the sand, where she and another little girl pretend to be cooking. After using the toilet, Mariana plays with a toy telephone, pretending to call people, and then with some keys, as well as making bubbles with soapy water. She continues playing with these various things until she goes to the bathroom to wash her hands. Two other children are talking there, and she joins their conversation, while one of the teachers gives the children water to drink (Field Note 16106).

Impact of Attendance in Child Care

It would be premature, however, to conclude that it is necessarily the setting that makes the difference in the extent to which the children (at least in Greensboro and Kisumu) were involved in academic and interpersonal lessons and play with academic objects. It could be the case that those children who asked more questions about school-related issues were more likely to be placed into child care (if their parents believed that they were ready for a child-care experience) or that those parents who provided more school-relevant objects for their children were also more likely to place their children into child care. If, on the other hand, it is the setting that makes the difference, it should be possible to see that children spend a greater proportion of their time in these school-relevant activities when they are in child care than they do when they are outside of child care.

We therefore dropped from the analyses those children who did not spend time in child care, and examined the extent to which the remaining children were involved in the activities of interest within and outside of child care. Because children spent different amounts of time in child care, we have expressed the data for each activity in proportional terms, first as a percentage of observations in child care and second as a percentage of observations outside of child care (see Table 7). Paired *t* tests revealed that, across all groups, children were significantly more likely to be involved in academic lessons and interpersonal lessons, and tended to be more likely to be involved in play with academic objects within child care than outside of child care. On the other hand, children were significantly more likely to be involved in conversation, including conversations with other children as well as with adults, outside of child care than inside. Our final hypothesis was thus only supported in the case of three of the six activities, and the data were in the opposite direction than we had predicted in the case of one activity.

Once we begin to look at the data separately by each cultural group (see Table 7), the group sizes become very small, of course, but it is still possible to see that setting made a difference to at least some of the experiences of children in both groups in Greensboro and to those in Kisumu, but not to the children in Porto Alegre. For example, the White children in Greensboro who attended child care were far more likely to be involved in conversation in settings other than child care, $t(12) = -5.23, p < .001$, but were somewhat more likely to engage in both academic lessons, $t(12) = 1.96, p < .08$, and interpersonal lessons, $t(12) = 2.05, p < .07$, when they were in child care than in their other settings. As for the Black children in Greensboro, the situation was rather different. They, like their White counterparts, were more likely to receive lessons in child care than when they were not in child care, but only in the case of interpersonal lessons, $t(6) = 4.29, p = .005$. Kisumu children were far more likely to be involved in both academic lessons, $t(6) = 4.32, p = .005$, and in interpersonal lessons, $t(6) = 3.59, p < .02$, when in child care, but engaged in significantly less conversation, $t(6) = -3.03, p < .03$, and somewhat less pretend play, $t(6) = -2.38, p < .06$, in that setting.

It is worth considering the intersection of culture and class as it relates to the Greensboro children's experiences within and outside of child care, although these considerations need to be viewed very cautiously, given the number of children involved. The child-care centers attended by the middle-class Black children did not stress academic lessons (the two who attended had barely more than the seven who did not attend a center), but were far more likely to allow the children the possibility to engage with academic objects; the children who attended were involved with books or with other school-relevant objects twice as frequently as those who did not attend. By contrast, the five working-class Black children who attended were involved in as many academic lessons as where their middle-class counterparts, and four times as many as their working-class peers who did not attend.

By contrast, in the White community, social class background played a different role, helping the nine middle-class children get five times as many academic lessons if they attended than the two who did not; the four working-class children who attended were involved in fewer than half the academic lessons than the middle-class attenders, but still received three times as many as the five working-class children who did not attend. This latter group, on average, was involved in almost no academic lessons during the entire 90 min, an equivalent to only five

Table 7
 Engagement in Activities for Those Children who Attended Child Care (CC), in Child Care Versus Outside Child Care, Mean % of Observations in each Setting SDs

Communities	Academic lessons		Interpersonal lessons		World lessons		Pretend play		Academic play		Converse with adults	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
White not in CC	1.49	2.2	2.82	1.2	2.93	2.5	3.23	3.3	5.42	4.1	14.53	6.8
White in CC	6.05	8.8	4.44	2.8	1.53	2.5	4.77	5.2	6.12	8.1	5.85	6.6
Black not in CC	1.35	1.2	0.36	0.6	2.54	2.1	2.10	2.7	5.61	6.0	8.58	5.5
Black in CC	3.27	4.2	3.91	2.3	1.67	2.7	1.47	1.6	6.91	7.7	5.69	8.3
Kisumu not in CC	2.98	1.9	1.31	1.2	0.70	0.6	5.35	5.3	4.78	5.3	7.53	3.7
Kisumu in CC	19.43	8.8	8.2	4.5	1.07	2.0	0.36	0.9	14.99	9.8	3.02	4.0
POA not in CC	0.44	0.5	0.37	0.6	1.60	1.9	3.70	4.7	1.89	2.9	9.61	3.8
POA in CC	1.14	2.1	0.54	1.0	1.32	1.4	4.08	4.2	2.27	3.9	8.0	6.6
Total not in CC	1.32	1.7	1.26	1.4	2.01	2.1	3.57	4.1	4.03	4.5	10.59	5.7
Total in CC	5.95	8.8	3.52	3.7	1.40	2.0	3.26	4.2	6.26	8.2	6.16	6.6

Note. Paired-sample *t* tests.
 Academic lessons: $t(42) = 3.65^{****}$
 Interpersonal lessons: $t(42) = 4.12^{****}$
 Play with academic objects: $t(42) = 1.86†$.
 Conversation: $t(42) = -4.32^{****}$
 † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

such lessons over the entire day. By contrast, their middle-class peers who attended a child care could be expected to engage in over 40 per day. In other words, being in a formal child-care center helped the Black working-class children experience as many academic lessons as their middle-class peers, whereas for the White children, attendance in a child-care center gave the greatest advantage, in terms of academic lessons, to the middle-class children.

It is also worth noting that neither middle-class nor working-class children in Porto Alegre were involved in many lessons within child care (less than 1% of our observations in both groups), but middle-class children who attended child care were far more likely than their working-class peers who attended to be observed involved with school-related objects (3.5% vs. 0.4% of the observations), the equivalent of daily rates of 56 vs. 7, a fairly striking difference.

Discussion

The focus of this issue of *Child Development* is on normative development in context, and we have adopted a cultural approach to this issue, in part because cultures differ in what they view as normative. However, the situation is complex because culture can be treated at the level both of society and of groups that differ by race or ethnicity within society (Betancourt & Lopez, 1993; García Coll et al., 1996). Thus, American culture is clearly different from Kenyan or Brazilian culture, because of these societies' different histories, access to resources, sense of identity, values, beliefs, and practices. Furthermore, within each of these societies, racial or ethnic groups have their own different histories, access to resources, sense of identity, values, beliefs, and practices. For this reason, we chose to study four cultural groups, ethnically and racially homogeneous, from each of three societies—Luo families from Kenya, families of European descent in southern Brazil, and two groups from the United States, Whites of European descent and Blacks of African descent. Believing that we could obtain a clearer sense of how culture is implicated in young children's activities by holding constant some relevant aspects of life, we observed equal numbers of middle- and working-class children from a single city in each society.

Because of the way in which we gathered our data, we believe that we have a good sense of the typical activities in which the children were involved, and thus a sense of what is normative in these children's lives. We were with them long

enough for them to be accustomed to our presence, and given our time-sampling method we have no reason to believe that the activities in which they engaged during the 30-s observational windows were any different from those during the rest of the 18 hr we were with them. We are thus confident that we would have seen the same activities during the remaining times, and that extrapolating across the entire day gives a good indication of the extent of engagement.

Although the research described in this paper does not involve longitudinal data, and thus does not allow us to describe development per se, our focus is on the types of typically occurring everyday activities that drive development. It is, after all, in the course of engaging in the activities that the culture makes available that children learn the very things that helps them to become competent in the ways of the group. We believe that children's developmental processes operate differently in different ecological contexts, both those involving the specific settings in which children are situated and the broader socio-cultural contexts (e.g., society, social class, race/ethnicity) of which those settings are a part.

Our most important finding is that great care needs to be exercised when trying to interpret cultural variations in young children's daily activities. Cultural groups are far from homogeneous, even when drawn from single cities, and almost every meaningful difference that we identified needed to be examined in terms of the intersection of culture and social class. The problem of ignoring social class may be judged by our finding that, at the level of culture, the children in Kisumu worked more than did the others, those in Porto Alegre had fewer lessons, and the White children in Greensboro engaged in more conversation than did their Black counterparts. However, the importance of examining carefully the intersection of culture and social class is seen in the fact that in Kisumu only the working-class children engaged in more work than did children from the other groups; their middle-class peers were no more likely to be observed in work than were children from any other group. Similarly, only the middle-class White children in Greensboro engaged in significantly more conversation; their working-class White counterparts and the Black children from both social classes were indistinguishable in terms of their likelihood to engage in conversation.

The importance of examining the intersection of culture and class was also apparent when we examined the activities that we felt might be most relevant to schooling. In each culture, children from

middle-class families were more likely than their working-class peers to be involved in academic lessons and were more likely to play with academic objects. Perhaps not surprisingly, children whose parents were well educated seemed to provide more opportunities for their children to engage in activities that might be helpful to them in their transition to school than did working-class parents. In Kisumu, however, unlike the situation in the other cities, children in working-class families were more likely than their middle-class counterparts to get lessons in skills, about nature, and about safety, perhaps helping them on a trajectory more to do with the world of work than the world of school. In other words, to be from a working-class background in Kisumu has a very different meaning than it does in either Greensboro or Porto Alegre.

One explanation for these patterns necessarily invokes cultural variation in settings. Cultures are indeed providers of settings, but culture is also implicated in variations within and across these settings. Child care is a good example of this. In none of the cultural groups from which we gathered data are children required to attend, and there is limited availability. Availability is influenced partly by resources, for relatively wealthy parents can select from a wider range of centers than can relatively poor parents, but also by both alternative opportunities and ideas about how young children could or should spend their time. The primary reason for middle-class children from Kisumu being involved in so many academic lessons and play with academic objects is that 6 of the 10 attended child care, compared with only a single child (Gesila) from a working-class family. As was portrayed in the selection from Fredah's field notes, Kisumu child care centers are places in which children are provided with considerable school-relevant content.

This makes sense, given that the function of preschools in Kenyan society is to prepare children to pass the "school-readiness" tests required for entry into the more prestigious schools. The main difference between the center that Gesila attended and those of her peers is that the latter's parents were able to pay for them to attend relatively well-equipped private centers, whereas the local community ran Gesila's child care, in which the toys were mostly cast-offs or had been made from locally available materials (e.g., a doll made from banana leaves or a car from fruit juice cans with bottle tops as wheels). Instead of attending child care, the remaining working-class children spent most of their time at home with older siblings (which often involved helping in the siblings' chores), playing with

other children close to home, or in the company of their mothers, all of whose work involved selling vegetables, fruits, charcoal, or small baked goods. It is not surprising that they were so heavily involved in work, and also why they were more likely to have lessons involving skills or safety.

Child care appeared to play an entirely different role for the children in Porto Alegre, however, where 16 of the 20 children attended formal child-care centers, and none were in family child-care, something that is rare in Brazil (Rosemberg, 1993). The children who attended child care did not engage in significantly more of the activities we thought might be relevant to school than did their peers who did not attend. When looking only at the children who attended, comparing their activities within child care and outside, the differences were also minimal. Interestingly, although the middle-class children were more likely to play with academic objects than were their working-class counterparts, they did so outside of child care, not within.

To make sense of these patterns, again it is necessary to refer to the society at large. Until the last decade, few systematic attempts were made in Brazil to collect data about the number of children enrolled in various types of child care, or about the background and/or training of the teachers (Corsino, Nunes, & Kramer, 2003; Freitas et al., 2006). Anyone could open a private child-care center in Porto Alegre, as in the rest of Brazil (Rosemberg, 1993) and there was no attempt to relate the quality of the center to the training of teachers. Parents are likely to choose a private center, assuming they have the resources to do so, on two grounds—the safety of their children, and the appearance of the school. Publicly funded child-care centers, for the children of poorer parents, have been established primarily as a means to help parents work by providing a safe environment for the children, rather than as a setting that will prepare their children for school. Particularly in the latter type of center, it is not assumed that the teachers will have had much if any professional training, and their salaries are very low. Only since 1996 has there been any stipulation of a minimum requirement (a high school class in early childhood education) to teach in a child-care center, but even this minimum is not enforced (Freitas et al.). In Porto Alegre, there is little evidence from our observations that either parents or teachers believe that preschool education serves as a means to prepare children to succeed in school. As in Greensboro, middle-class parents in Porto Alegre try to ensure the quality of later schooling either by living in the appropriate neighborhood (in the case of public schools) or by

spending money (in the case of private schools); unlike in Kisumu, children are not required to pass entrance exams to get into good schools.

In Greensboro, the role of child care appeared different in the two cultural groups, although, as we often found, it is the intersection of culture and class that is most striking. Among White children who attended child care, middle-class children were far more likely to engage in academic lessons than were their working-class peers. Among the Black children, however, working-class children received as many as their middle-class counterparts, and four times more than working-class Black children who did not attend. The greater number of such lessons for the working-class Black children may be explained by their teachers being part of a society that makes an effort to provide academic assistance for children viewed "at risk" for failure, as is often assumed to be the case for poor Black children (Billingsley, 1992). It is also noteworthy that the Black children who attended child care received significantly more interpersonal lessons there than they did elsewhere; their teachers appeared to focus as much on the children's behavior as on their academic competence.

It is thus clear that child care has a different meaning in each of the cultural groups we studied. In Kisumu, it is a setting populated far more by children from middle-class than working-class backgrounds, and seems designed to help children attain the school-relevant skills that will allow them to move into the more prestigious schools. In Porto Alegre, by contrast, equal numbers of middle-class and working-class children attend child care, but although the centers that cater to wealthier or poorer families differ in terms of their amenities the goal in both types is far more to provide children with a safe place in which to play than to prepare children explicitly for school. In Greensboro, the situation is different yet again, and varies not only from the situation in the other two cities, but by both race/ethnicity and social class. If, as we believe, meaningful variations in the amount of different types of activities in which children are encouraged to engage is a measure of how children are being prepared for their respective futures, the developmental trajectories of White and Black children from middle- and working-class backgrounds are quite different.

Conclusions

We have thus shown how adopting a cultural approach to young children's activities, observing what typically occurs in their everyday lives, has helped to make sense of the different patterns that we found.

There are, however, drawbacks to our approach. The first is the issue of time. We believe that it is important to observe for as long as we do, and for lengthy blocks of time, so that to the greatest extent possible our participants ignore the observer's presence and do what they would normally do. Similarly, we place no restrictions on where the children are going to be observed, instead following them to whichever setting they are in, in order to have a sense of the places in which the children spend their days. This approach is time-consuming by comparison with lab-based studies, interviews with parents, or the type of short-lived observations typically conducted within the home or child-care center.

A related drawback is the fact that the number of participants in the study is small and nonrandom. Rather than trying to select our participants randomly from some known population, we chose to select (at least in the case of Greensboro and Kisumu) all of the children of the relevant age and cultural group from within a specified community. The fact that a minimum of 67% of the eligible participants chose to participate makes us less concerned that the children we observed were in some important ways different from others in their community. However, by choosing our participants in these ways we clearly had no control over such issues as whether the children spent any time in child care. Our position is that if more children in one cultural group than another attend a formal child-care center, or engage in a specific type of activity, then that is simply the reality for that cultural group.

A third drawback of this study is that we did not try to obtain any formal assessment of the quality of the centers that the children attended, either using state-wide criteria, as would have been possible in Greensboro (Cassidy, Hestenes, Hestenes, & Mims, 2004), or by interviewing the children's parents or teachers. Our focus, rather, was on the specific activities in which the children participated both while attending a center and in their other settings; regardless of whether a center is considered high quality or not, it is helpful to know the types of activities in which children engage while attending. Variations in the extent to which children engage in different activities within a formal center gives us a sense of what may be considered appropriate for young children (Tobin, Wu, & Davidson, 1989).

A further drawback is that our focus was on *what* the children experienced (their daily activities) and not on *how* they experienced them. Similarly, we did not try to understand how our Luo children felt about being Luo in a society in which Kikuyu hold

many of the more important positions of power, or the Black children's experiences of racism or racial socialization in Greensboro.

We believe, however, that the advantages to our approach outweigh these disadvantages. Our theoretically derived approach has helped us to focus more appropriately on cultural variations both across societies and within the United States. Research that has compared poor and rural Kenyan children with middle-class children from the industrialized world has not done a good job of examining the considerable within-society differences that are to be found, typically conflating the experiences of rural Kenyan children with all Kenyan children. The same situation is found within the United States, where too often the experiences of Black children living in poverty have been compared, either explicitly or implicitly, with those of middle-class White children. As we have shown repeatedly, children's experiences do not vary simply by their cultural group or by their social class; instead, it is necessary to examine the intersection of culture and class.

Our data thus serve to extend the literature on children's experiences in Kenya that has highlighted the extent to which young children engage in work. It seems clear that children's relatively heavy involvement in work is something found primarily in working-class families. Similarly, the literature on Brazilian children has often focused on street children. Although a reality of Brazilian society, these children hardly represent the norm in a society in which 95% of children 14 and under attend school and almost 50% of preschoolers are in formal child care. The Brazilian 3-year-olds in our study engaged in a similar constellation of activities as did children in the other groups, although the function of child care seems different in Porto Alegre than in either of the other cities. Our data also show clearly that different cultural groups have different expectations for the types of activities that should go on in child care.

It is also necessary to examine within-society variation in the United States, where we also found that variations in children's engagement in activities were related both to cultural group (race) and to social class. However, the implications for engaging more in certain types of activities are different for cultural or social-class groups within the same society than they are when considering such groups across different societies. In any given society, members of different racial or ethnic groups are members of at least two cultures—one related to their race or ethnicity and one to the society at large. In any society in which the members of one group have a dominant role, and in effect set the rules for what sorts of behaviors or ac-

tivities are to count as appropriate, groups within that society that encourage different activities (or the same activities to a different extent) are likely to be at a disadvantage. By contrast, there are no such difficulties for members of other societies who have established different sets of norms for what is to count as appropriate behavior for preschoolers. White middle-class children engaged in more lessons than did Black working-class children and children from Porto Alegre, and more conversation with adults than did Black working-class children and children from Kisumu. However, the developmental consequences are likely to be quite different for children in the United States, which views these activities as helpful for development, than for children in Brazil, where providing early explicit lessons to children apparently is not seen as necessary for development, or Kenya, where adults do not tend to view children as appropriate conversational partners.

We thus believe that our observational ethnographic approach allows us to provide a more ecologically valid understanding of the links between culture, setting, and children's activities than would be possible with other approaches, whether those that rely on controlling the setting to see how people behave in certain situations or those that rely on parental reports to learn about children's activities. We also believe that studies of culture can be significantly enhanced by not simply focusing on comparisons of groups that are maximally dissimilar, whether within or across societies. Our understanding of children's development can only be increased by more research into the normative experiences of children from cultures that are different by virtue of history, access to resources, values, beliefs, and practices but that nonetheless share similarities in terms of education, occupational experiences, and urban living.

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