USING NATURALISTIC OBSERVATIONS
AS A WINDOW INTO CHILDREN’S
EVERYDAY LIVES
AN ECOLOGICAL APPROACH

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ABSTRACT

In this chapter we argue that it is important to study how children spend their time,
the activities in which they engage, and their typical social partners. In part this is
because we know surprisingly little about children’s everyday lives, the worlds in
which they live and which they help to create. This type of research is important also
for theoretical reasons, as a study of “proximal process” (Bronfenbrenner 1995). If,
as Bronfenbrenner has argued, proximal processes are the “engines of develop-
ment,” the everyday activities that constitute such processes should be the focus of
attention. We therefore present an observational methodology that is designed to
assess the daily activities of young children and their social partners in the typical
settings in which they find themselves, and also discuss data, collected using this

Contemporary Perspectives on Family Research, Volume 1, pages 109-132.
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ISBN: 0-7623-0090-6

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methodology, on middle-class and working-class European-American families. Our results indicate that both engagement in and initiation of activities while the children are of preschool age relate to their teachers' perceptions of the children's academic competence in their first years of school.

INTRODUCTION

Children's experiences and concerns and the subjective meanings they attach to events in their lives have received little attention in family and child development research. In spite of growing awareness of the need to understand the world on child as well as adult terms (in line with the principles of several conceptual frameworks currently in use in family research, such as ecological, transactional models) children remain at the fringes of family research. The history of the peripheral role granted to children in research in the social sciences generally, and in family and child development research specifically, has been discussed in a companion chapter (Hogan, Etz, and Tudge, this volume). In that chapter we argue that, in light of a lengthy history of marginalizing children, there is now an urgent need for baseline information about the daily fabric of children's lives. In this chapter we expand on that proposition, and describe how naturalistic observations, based on an ecological model, can be used to study the activities that consume children's time in the course of their ordinary day-to-day routines.

CHILDREN'S USE OF TIME

How do children experience the world? One important aspect of children's experience is the way in which they spend their time and the people with whom they interact, but we have limited knowledge of these things. This is especially true of our knowledge of children's lives outside preschool settings and laboratories. We know little about how they spend their time after school and on weekends (Pellegrini 1996), or about the physical settings in which they play and those they encounter in other activities (Bloch 1989). Because researchers in the mainstream of research on children and families have tended to adhere to the quantitative, laboratory based work that is consistent with a positivist epistemology, the ordinary lives of children in western societies are extraordinary in mainstream research. Why is it important to learn more about what children do and with whom?

It is important to document how children spend their time because current assumptions about what influences child development and outcomes may be based in outdated ideas about the structure and functioning of family life. Context is not merely situational, it is also temporal (Bronfenbrenner 1989, 1993; Elder 1998), and in recent decades there have been numerous and rapid changes to the structure and functioning of daily life. The demographics of western societies are
changing, with both parents working outside the home in many two-parent families, the numbers of one-parent and step-parented families increasing (Pasley and Hinger-Tallman 1987), and the birthrate among unmarried adolescents rising (Eggebeen, Snyder, and Manning 1996). As a result, the social organization of childhood is also changing, in terms of where, how, and with whom, children spend their time (Bianchi and Robinson 1997; Shehan and Seccombe 1996).

Current information about children’s use of time is also important in terms of intervention, because some intervention strategies are built on assumptions about how children spend their time in the family. Teachers, for example, hold beliefs about the amount and nature of support provided to children by parents and other siblings for completing of assigned homework. They also have expectations about the amount of time parents spend reading to their children (Pellegrini 1996). It is clearly necessary to know about the time children spend engaged in their everyday activities to design relevant educational programs (Cole 1993). As Pellegrini (1996) has argued “There is a crucial need for good descriptions (that is, reliable and valid descriptions) of children in settings where they spend substantial portions of their time” (p. 5), that is, in and around the home.

Information about children’s activities and social partners in and around the home can lead to an understanding of relationships and roles within families, as demonstrated by the work of Dunn (1988) and others. It can shed light on how families’ work is divided along gender lines and according to birth order (Crouter, Maguire, and Helms-Erickson 1997). This information can also help us to understand how parental beliefs and values come to be translated into action, that is, whether parents actually encourage the types of behaviors they value through their interactions with children in daily life (Goodnow and Collins 1990; Luster, Roades, and Haas 1989).

TAKING THE CHILD’S PERSPECTIVE

We have argued that there is an urgent need for more information about how children experience their worlds, and in particular, about how they spend their time. This information should be framed from the vantage point of the child, rather than solely that of adults. Research on family time has tended to be filtered through an adult viewpoint. We thus know about adult perceptions of marital interactions (Gottman 1979), the problems they encounter when becoming parents (Cowan and Cowan 1992), and the tension parents feel when juggling work outside and inside the home (Hochschild 1989; Presser 1994). What we know much less about is how much of children’s own time is spent with mothers, fathers, siblings, peers, or alone, and what they do during that time. We also need more information about the amount of time children spend in various activities as this may be as important as whether or not they engage in any particular activity. We may assume, for example, that children’s engagement in play with a particular kind of object is
valuable for their cognitive development, but the frequency of play with that object is also important. Furthermore, we need to know more about children’s social partners in their everyday activities, because this can help us to understand social and cultural influences on child development, and understand the respective roles played by children and their social partners in their interactions. Rather than rely on the reports of adults, which can only provide an adult-centered perspective, the information should be derived directly, either verbally from the children themselves or by observation of children.

How is this information to be gained? From our perspective, it is important to use research designs that do not impose artificial constraints on families. These constraints vary from the most artificial, such as when a researcher asks mothers to interact with their children in a laboratory setting, to those that allow more “naturalistic” observations, such as when a researcher asks one or both parents to be in the home while observations take place, but without the television on, without entertaining friends, using the telephone, or doing typical everyday chores. Instead, we believe that it is important to observe children in their everyday settings with as few artificial constraints imposed as possible. In this chapter, we discuss research that uses such a methodology, and the theoretical foundations on which these methods are based.

**OBSERVATION OF ACTIVITIES**

Observations of child behavior have been documented since as early as the eighteenth century, when baby biographies were compiled. Among the most famous are Charles Darwin’s report on his own son, which appeared in 1877 (Vasta 1979) and Piaget’s pioneering studies based on observation of his children when they were infants and young children (Piaget 1928, 1965). More recent examples of systematic research into children’s and families’ lives can be distinguished according to the domain of interest. One methodological approach is that taken by cultural anthropologists and some cross-cultural developmental psychologists. Building on Margaret Mead’s pioneering work (e.g., Mead 1961), many observational studies have documented the daily lives of children living in non- or semi-industrialized societies. Observations take place over many hours in the typical settings in which children are to be found in the cultural group of interest. There are a number of excellent examples of this type of work (Harkness and Super 1985, 1987; LeVine et al. 1994; Munroe, Munroe, and Michelson 1983; Rogoff 1981; Serpell 1993; Super and Harkness 1986; Tronick, Morelli, and Winn 1987; Weisner 1987; Whiting and Edwards 1988). By contrast, extraordinarily little research has been conducted using a similar methodology on children living in industrialized societies. This lack of observational studies of children led one commentator (Richards 1977) to note that we know far more about the every-
day lives of non-Western children than we do about those in the West, a point that was reemphasized a decade later by Marianne Bloch:

Despite increasing research in this area, however, we still know surprisingly little about the most common physical settings young children experience, the effect of children’s most typical physical settings on play, the typical company they keep, and the impact of the social network of people they encounter in play and other activities (1989, p. 123).

This situation exists because scholars interested in understanding children’s development in their own (predominantly Western and industrialized) societies have relied on very different methodologies.

Most North American researchers interested in young children’s activities and in adult–child interactions collect their data in the laboratory, preferring to trade the experimental control provided by a standard laboratory setting for the “messiness” of everyday life outside the lab. Others, by contrast, are more interested in gathering data in the home, in the course of structured or semi-structured observations. These observations are structured so as to ensure a minimum of interruption; they occur when the adults (typically the mother) are not intending to go shopping, cook dinner, entertain friends, clean the house, or do any of the myriad activities in which they normally engage. The implicit message communicated to them by the researchers is for them to interact with their children. They may well do so in a relatively natural way but, by restricting the possibility of “interruptions,” the researchers may be gaining a misleading sense of the extent to which and ways in which adults typically interact with their children, and of how children try to draw those around them into their activities.

For example, the work of Wilson and his colleagues (Wilson 1995; Tolson, Wilson, Hinton, Simmons, Stapes, and Askew 1995; Hinton, Wilson, Solomon, Smith, Phillip, and Boyer 1995) allows the examination of family interaction patterns during mealtimes, but under the types of constraints (all family members present at the meal, no television on, no non-family members present) that may prevent the researchers from seeing the types of mealtime interactions that typically occur in real life. Similarly, Ross (1996; Ross, Martin, Perlman, Smith, Blackmore, and Hunter 1996) has provided wonderful data on sibling conflicts in the home, but may have increased both the number and resolution of those conflicts by requiring that the two children be in the same room and requiring that the mother be no more than one room away from the children. Even scholars who have collected natural observational data on children in nonindustrialized societies may change their methodologies when they are gathering data in their own societies. Bloch (1989), for example, used direct observations of children’s activities in Senegal, but relied on mothers’ reports of what their children were doing for her comparison study in the United States. When such constraints are imposed, or methods are altered, it is not possible to determine either how much time, or in what manner, children typically interact with their parents, siblings, or
others in natural settings. Information of this kind can only be obtained by observing with the minimum of constraints (specifically the presence of the observer), in which the child is followed in the course of his or her typically occurring activities and interactions.

There are some examples of natural observations of children in the industrialized world, although they are comparatively rare. Barker and Wright (1951) were among the earliest to comprehensively document the daily activities of a child in a systematic way. Using a team of trained observers they documented the many activities experienced by one boy in the course of one day in a small U.S. town they called “Midwest.” As part of the original “Six Cultures” study, “Orchard Town” featured as the representative of the industrialized world, with data gathered in the northeastern United States in just the same way as it was in rural Kenya, Mexico, Okinawa, and the other cultures of interest (Whiting and Edwards 1988). Some cultural anthropologists have also conducted their work, using observational methods, among children and their families living in their own society. Shirley Brice Heath (1983), for example, did wonderful ethnographic work to detail different approaches to literacy in three communities in the Carolinas. Among developmental psychologists, there is the ground-breaking work of Clarke-Stewart (1973) and Carew and her colleagues (Carew 1980; Carew, Chan, and Hafter, 1976), which involved detailed and lengthy observations in both the homes and the child-care centers of 40 children from nine to 18 months old (Clarke-Stewart 1973), and 23 children between one and three years of age (Carew 1980; Carew, Chan, and Hafter 1976). More recent work, by Judy Dunn and her colleagues (Dunn, 1988; Dunn and Brown, 1991; Dunn and Wooding, 1977), is similar in that it is based on naturalistic observations of many types of social interactions, though it is based on smaller numbers of observations (two one-hour observations at three different ages between one and three years of age) of 43 children from Cambridge, England. Studies such as these are extremely rare, however, in contrast to the huge numbers of studies on children that do not rely on naturalistic observation.

Why is there this paucity of observational data on young children? There are three main reasons. The first, which we discussed at length in our companion chapter in this volume, stems from the prevailing marginalization of children in the Western psychological tradition. The second is that psychologists may view lengthy observations as too intrusive and too time-consuming, even though they are the modus vivendi of anthropologists. The third is that theoretical frameworks that require observational methods have rarely been used in developmental psychology or family studies. Such theories are to be found, however. They are theories that take a systemic and ecological approach to human development—an approach that requires that simultaneous attention be paid to the context or setting, to the individuals in that context, and to the processes that link both context and individuals and are a part of the interactions between those individuals. Two such theories are those of Lev Vygotsky and Urie Bronfenbrenner.
THEORETICAL PERSPECTIVES OF VYGOTSKY AND BRONFENBRENNER

Vygotsky argued that children acquire cultural competence in the course of interactions with others who are more skilled in the activities that are valued by the culture. Those who focus on Vygotsky’s most famous concept, the “zone of proximal development,” typically treat this as akin to an adult “scaffolding” a child, working out what the child’s needs are and providing appropriate assistance. This adult-centered view, however, conflicts with Vygotsky’s insistence that the “zone” is created in the course of interaction by the participants, both adult and child. Development, from Vygotsky’s perspective, can only be understood by examining what it is that each individual brings to an interaction, the nature of the interaction, and the broader cultural context that helps to give meaning to the interaction (Hogan and Tudge 1999; Tudge, Putnam, and Valsiner 1996; Van der Veer and Valsiner 1991, 1994; Vygotsky 1987, 1997).

A similar interweaving of individual and context is central to Bronfenbrenner’s theory. In the latest manifestations of the theory (Bronfenbrenner 1989, 1993, 1995; Bronfenbrenner and Ceci 1994; Bronfenbrenner and Morris 1998), Bronfenbrenner has called for researchers to employ a design based on a “Person-Process-Context-Time” (PPCT) model of development. Such a design involves attending to elements of the Persons who are the focus of investigation, not only the “stimulus characteristics” of age, gender, and so on, but what Bronfenbrenner has termed “developmental instigative characteristics” such as persistence, beliefs, and motivations. From the perspective of those interested in children’s development, the implication is clear—that researchers must take seriously what children bring to bear and not treat them simply as the “subjects” (or objects) of study.

The Process part of the theory also necessarily involves examining children from their own perspective, rather than relying on adult reports. Bronfenbrenner (1995) described “proximal processes” as the “engines of development” because they involve “repeated and developing interactions between an active, evolving biopsychological human organism and the persons, objects, and symbols in its immediate environment” (p. 620). Examples cited by Bronfenbrenner included parent–child and child–child activities, group or solitary play, reading, and so on. In other words, proximal processes are the essence of what occurs in the course of everyday activities. The best, if not only, way to gather data on such processes is through naturalistic observations, conducted in the settings in which the child and his or her significant others typically interact.

Bronfenbrenner (1979, 1986) is best known as a theorist who differentiated various layers of Context (the third element of the PPCT model) into microsystem, mesosystem, exosystem, and macrosystem. His argument is that we need to study development in more than a single microsystem (whether home, child-care set-
ting, or even university laboratory) and we need to draw participants in our research from at least two different macrosystems, or groups whose members share value or belief systems, access to resources, living conditions, and so on. There are two major implications. The first is that examining children under conditions that are specifically designed by the researchers is unlikely to be an adequate study of development. In fact, Bronfenbrenner (1979) criticized much of developmental psychology as practiced in the United States at that time for being "the science of the strange behavior of children in strange situations with strange adults for the briefest possible periods of time" (p. 19). The second implication is that it is not possible to study the "generic" child (white, male, and middle class), but that we need to study children from different social and cultural ecologies, whether differentiated by class, race, ethnicity, or society.

The final element of the model is that of Time, which for Bronfenbrenner constitutes a double plea, first to situate the research in its historical context and recognize that development is always influenced by the broader economic and social forces at the period during which the research is being conducted, and second to study development over time. His argument is that researchers need to study developmental continuity and change rather than rely on cross-sectional designs that at best can only infer development.

THE CULTURAL ECOLOGY OF YOUNG CHILDREN PROJECT

This project (the empirical focus of this chapter) was designed to examine the development of young children in different cultural contexts. The theoretical framework was derived from the work of Vygotsky and Bronfenbrenner, with the design incorporating a Person-Process-Context-Time model. As such, it requires attention to children as active contributors to their own development, with an observational methodology, with data gathered in more than a single context, over time.

The project is cross-cultural in design, with data collected in a single city in each of various countries (the United States, Russia, Estonia, Finland, Korea, and Kenya). The cities were chosen to be of medium size (ranging from 100,000 to 700,000 inhabitants), with similar cultural and educational amenities. In each city a minimum of two groups of families participated. Approximately half of the families featured parents who were well educated by the standards of the country (a minimum of a college degree) and who (if they worked outside the home) had an occupation that was judged to be professional. Parents in the remaining families were educated, but none had a college degree and their jobs were judged to be non-professional. For ease of discussion we term these families "middle-class" and "working-class" respectively. The same methodology was employed in each country, with observers recruited from the relevant cultural group and trained by the first author.
Some of the observational data on participants from these countries have been reported elsewhere (Odero 1998; Tudge, Hogan, Lee, Meitsas, Tammeveski, Kulakova, Snezhkova, and Putnam 1999; Tudge, Lee, and Putnam 1998; Tudge and Putnam 1997). In this chapter we are reporting data only from the city in the United States, and only from children of European-American background, because these are the only participants from whom we have complete data so far, although we also have observational data on African-American families (Doucet 1998). A total of 20 children were involved, 11 from a middle-class community and nine from a working-class community. “Community” was defined as an area of town bounded on all sides by relatively clear boundaries (such as a major road or railway line), one to two square miles, and judged to be fairly homogenous in terms of housing and racial background. A list was generated from the birth records of all children born in each community two to four years earlier, and we attempted to recruit all of the children who were still living in the communities. Our participation rates were high (64% of the middle-class children and 78% of the working-class community), given the intrusiveness of the study, which involved 20 hours of observation of each child at Wave 1. When the children reached school age, their parents were interviewed about their child-rearing values and beliefs, and their teachers and parents completed questionnaires about their social and academic competence.

During the four years of the study, two families moved out of the city (one to the other side of the country), although we were able to retain both families. However, some attrition did occur and some families and some teachers chose not to participate for one or both of the subsequent waves of data collection. We have complete data on 10 of the middle class children and seven of the working class children at Wave 2 (when the children were mostly in kindergarten and Grade 1, approximately six and seven years of age) and on eight of the middle-class and eight of the working-class children at Wave 3 (when the children were one year older).

**METHODOLOGY**

Naturalistic spot observations were used to code children’s activities, partners, respective roles, and so on. The coding scheme was developed by the first author and his colleagues (Tudge, Sidden, and Putnam 1990). Families were asked to keep to their daily routines as much as possible while coding was taking place. Following a habituation period during which time the target child could become accustomed to the presence of the investigator, the focal child was followed for 20 hours in two- and four-hour blocks to cover the equivalent of a complete day during the course of a single week. (The final two hours were videotaped rather than coded live, and therefore do not feature in these analyses.) Activities were coded during 30-second “windows” that occurred every six minutes. The data gatherer
was signaled as to the timing of the windows by means of an endless loop tape recording, audible only to her. Children were followed wherever they went during the observation time, and they wore a wireless microphone (audible only to the researcher) to allow conversations to be overheard while a reasonable distance was maintained from the child (to avoid intrusiveness). The observer’s job was to watch carefully during each 30-second window and then, after the window closed, to write the codes and the field notes for all activities, roles, partners, etc., while trying to be alert to the initiation of any new activities. This took approximately two minutes. The remaining time leading up to the opening of the next window was to allow the observer to keep track of the initiation of activities and the child’s involvement in those activities and to allow an understanding of the context of the activities that were ongoing at the opening of the next window. Participants were unaware of the timing of the windows.

Coding of Activities

Activities were coded as “available” to the focal child if they occurred within easy ear- or eye-shot of the child. If children were physically participating or were watching closely they were coded as being “involved” in the activities. The following activities were identified and coded: lessons (four categories); work (five categories); play (10 categories); conversation (three categories); and “other” (six categories). In this chapter, we report only on activities in which the children were involved.

Activities were categorized as follows: Lessons were defined as deliberate efforts to impart or elicit information. They were coded under four categories; academic (spelling, counting, etc.); interpersonal (teaching “good” behavior); skill-nature (how things work, why things happen); and religious activities. Work activities were defined as those “that either have economic importance or contribute to the maintenance of life” (Tudge, Sidden, and Putnam 1990). Work involved such things as housework, work in the yard, repairing objects, shopping, and preparing and serving food. Play included activities engaged in for fun and having no apparent curriculum or not having any apparent economic importance attached. Play included exploration and entertainment and types included pretend/role-play, play with an academic object (such as a book), play with child-centered objects, play with adult objects, other types of play (such as chase), and watching TV. Conversation was defined as “talk that was not related to the ongoing activity and had a sustained or focused topic.” (Tudge, Sidden, and Putnam 1990). Talk was not coded as conversation if it accompanied and was concerned with the ongoing work, play, or a lesson. Other activities included sleeping, eating and other bodily functions, being idle, and activities that were “uncodable” (for example, if the child was lost from sight).

As well as observing which activities were available and the child became involved in, we also coded how children became involved in activities, how activities were initiated, and by whom. Two types of initiation were coded. First, a child
Using Naturalistic Observations

<table>
<thead>
<tr>
<th>Time/Activity</th>
<th>Lessons</th>
<th>Work</th>
<th>Play</th>
<th>Conv.</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child's role</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Init. of activ.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Init. of invol.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner #1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner's role</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Similar spaces for partners 2-5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age and number of available partners</td>
<td>Field notes here</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother in locale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father in locale</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Figure 1.** A Shortened Version of the Coding Sheet Used in the Cultural Ecology of Young Children Project

was coded as initiating an activity if he or she, alone or with a partner, began a new activity. If the child was not involved in initiating the activity, it was coded as other-initiated. Second, a child was coded as initiating his or her own involvement in an activity, if he or she, alone or with a partner, joined in an ongoing activity. If someone else got the child involved then involvement was coded as other-initiated.

We were able to code a maximum of five partners in each activity, their roles in the activity (e.g., participating, observing, facilitating, avoiding), and whether their full attention was being devoted to the activity. In addition, we coded the number and ages of the other people in the immediate vicinity of the child (potential partners), whether the child’s mother and father were present in the locale, and the location of the activities. The observer also wrote brief “field notes” to describe the activities that had taken place in the “window” that had just closed, as well as the coded forms of the activities, partners, roles, etc. A shortened version of the coding sheet is provided in Figure 1.

Training involved live observations of children in families with a child of the appropriate age as well as use of videotaped footage of the children. Disagreements were discussed until agreement was reached. Reliability was assessed before and after data collection, using videotaped footage of children. Coders had to attain (and retain) a minimum of 75 percent agreement (the range for activities, initiation of activities, partners, and roles was from 78% to 90%, with a mean of 85.4%).

**PURPOSE OF THE RESEARCH**

One purpose was to gain an understanding of how children spend their time in daily life through documenting naturally occurring activities. We wished to gather
information about the kinds of activities in which children were involved, and the persons with whom they interacted in the course of daily life. We focused on a single child in each family, and on what went on around them, in an effort to capture the focal child’s, rather than an adult’s, perspective. In particular, we were interested to know the extent to which children initiated their own activities, as opposed to becoming involved in activities that others had started. We were also interested in how children’s daily routines were similar or different across social contexts.

A second aim was to conduct this research within a theoretical framework that lends itself to examining research participants, including children, as central and to observe their world insofar as is possible through their eyes. Bronfenbrenner’s theory is quite explicit in this regard, requiring researchers to attend to what each participant brings to bear in any setting. His focus on the person, as one of the elements of the PPCT model, encourages researchers to examine, as we do, how children themselves initiate the activities in which they become involved. Proximal processes, or the everyday interactions between children and those around them, can only be studied via observations. Bronfenbrenner has also argued that, to understand development, the research design must involve “a contrast between at least two macrosystems most relevant to the developmental phenomenon under investigation” (1993, p. 39). A macrosystem is made up of any group whose members share a system of values, beliefs, access to resources, living conditions, and so on. In this chapter we discuss the findings from our comparisons of children from a middle-class community and a working-class community within the United States. The final element of the PPCT model, time, we included by examining the perceptions of the children’s teachers, once the children had gone to school, linking those perceptions to the earlier activities in which the children had been engaged as preschoolers.

ANALYSES AND FINDINGS

It is important to note that the two cultural communities from which the 20 families were drawn were not intended to be representative samples of broader populations. These two groups of families were not selected at random from certain known populations, but rather were intended to be the populations of interest. For that reason, we gathered data from all of the families within the two communities with children of the relevant age, who had lived in the communities since the children were born, and who were willing to participate (64% for the middle-class community and 78% for the working-class community). As such, any observed differences between the two groups are real differences. In this chapter we therefore have not used inferential statistics (that is, statistics that allow inferences to be made from randomly drawn samples to the broader populations from which those samples are drawn). Instead, we present children’s activities and partners


**Table 1.** Children’s Settings, by Social Class

<table>
<thead>
<tr>
<th>Setting</th>
<th>Middle Class</th>
<th>Working Class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n = 11)</td>
<td>(n = 9)</td>
</tr>
<tr>
<td>Home</td>
<td>118.18 (26.6)</td>
<td>119.44 (12.6)</td>
</tr>
<tr>
<td>Formal Child Care</td>
<td>36.36 (29.7)</td>
<td>25.00 (34.5)</td>
</tr>
<tr>
<td>Others’ Private Space</td>
<td>8.64 (12.6)</td>
<td>16.89 (31.2)</td>
</tr>
<tr>
<td>Public Space</td>
<td>15.45 (17.3)</td>
<td>16.44 (16.3)</td>
</tr>
<tr>
<td>Total Observations</td>
<td>178.64 (10.7)</td>
<td>177.78 (4.3)</td>
</tr>
</tbody>
</table>

using descriptive statistics to illustrate the information that can be obtained about children’s use of time with this method. However, these data should not be thought of as specific only to these two communities; similar results were obtained in other cities from other countries where data were gathered (Tudge et al. 1999). In other words, although our intention is not to generalize, there is some reason to believe that children’s experiences in other medium-sized cities in other parts of the world may be not unlike those that we report here.

A total of 3,584 observations were recorded, 1,967 of the middle-class group (11 children, *Mean* = 178.64, *SD* = 10.67) and 1,617 of the working-class group (9 children, *Mean* = 177.78, *SD* = 4.26). Because more than one activity could be going on during the “window” of observation, and because we coded all activities going on in the vicinity of the child (irrespective of the child’s involvement), a total of 5,799 activities were coded, 2,676 for the working-class group and 3,123 for the middle-class group. Observations took place in a broad range of settings because we followed the child wherever he or she went. For most children, however, the majority of observations took place in and around the home. The remaining observations took place either in a child-care setting (including preschool, child-care center, or family child-care in another person’s home), or in another type of setting (such as friends’ or relatives’ houses, or public spaces such as shops or parks). The mean scores were similar for children across the two social groups, but the individual variability was substantial, as can be seen in Table 1.

Our observations showed that, by far, the most common activity in which children were involved, regardless of social class, was play. Working-class children were engaged in somewhat more play overall (*Mean* = 111.00, *SD* = 20.8) than were middle-class children (*Mean* = 81.09, *SD* = 20.5), as Table 2 illustrates. Of the different types of play in which children were engaged, play with toys (and other child-oriented objects) was the most common for both groups, while other play (such as chase and rough-and-tumble) was the second highest category, followed by watching TV. The second most common activity after play for middle-class children was conversation (*Mean* = 24.73, *SD* = 13.6), and conversation with adults made up a large proportion of this. For working-class children, conversation was important, too (*Mean* = 13.56, *SD* = 6.5), but they spent more time involved in work activities (*Mean* = 14.47, *SD* = 3.5). For both groups, the activ-
Table 2. Engagement in Activities, by Social Class

<table>
<thead>
<tr>
<th>Activities</th>
<th>Middle Class (n = 11)</th>
<th>Working Class (n = 9)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>Academic Lessons</td>
<td>3.73 (4.4)</td>
<td>1.22 (1.6)</td>
</tr>
<tr>
<td>Skill/Nature Lessons</td>
<td>4.64 (3.1)</td>
<td>2.78 (1.5)</td>
</tr>
<tr>
<td>Interpersonal Lessons</td>
<td>4.73 (1.7)</td>
<td>5.56 (2.9)</td>
</tr>
<tr>
<td>Total Lessons</td>
<td>13.09 (6.7)</td>
<td>9.56 (3.2)</td>
</tr>
<tr>
<td>Work</td>
<td>13.27 (9.3)</td>
<td>14.67 (3.5)</td>
</tr>
<tr>
<td>Pretend Play</td>
<td>6.55 (5.3)</td>
<td>5.67 (5.2)</td>
</tr>
<tr>
<td>Play w/ Academic Obj.</td>
<td>9.45 (7.4)</td>
<td>6.36 (6.2)</td>
</tr>
<tr>
<td>Play with Toys</td>
<td>32.27 (17.2)</td>
<td>49.22 (16.3)</td>
</tr>
<tr>
<td>Other Play</td>
<td>16.18 (4.1)</td>
<td>25.16 (8.3)</td>
</tr>
<tr>
<td>Entertainment (TV)</td>
<td>14.64 (8.6)</td>
<td>23.11 (14.0)</td>
</tr>
<tr>
<td>Entertainment (non-TV)</td>
<td>1.82 (2.6)</td>
<td>0.67 (1.3)</td>
</tr>
<tr>
<td>Total Play</td>
<td>81.09 (20.5)</td>
<td>111.00 (20.8)</td>
</tr>
<tr>
<td>Child Conversation</td>
<td>1.73 (2.0)</td>
<td>0.89 (1.5)</td>
</tr>
<tr>
<td>Adult Conversation</td>
<td>23.00 (10.7)</td>
<td>12.67 (5.2)</td>
</tr>
<tr>
<td>Total Conversation</td>
<td>24.73 (13.6)</td>
<td>13.56 (6.3)</td>
</tr>
</tbody>
</table>

Table 3. Mothers’ and Fathers’ Involvement in Activities with their Children, by Social Class

<table>
<thead>
<tr>
<th>Parent</th>
<th>Middle Class (n = 11)</th>
<th>Working Class (n = 9)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>Mothers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mothers' Availability</td>
<td>128.82 (35.6)</td>
<td>125.00 (44.2)</td>
</tr>
<tr>
<td>Partner in Lessons</td>
<td>7.09 (5.7)</td>
<td>5.11 (2.2)</td>
</tr>
<tr>
<td>Partner in Work</td>
<td>5.64 (5.7)</td>
<td>6.89 (2.6)</td>
</tr>
<tr>
<td>Partner in Play</td>
<td>13.38 (5.8)</td>
<td>76.67 (71.5)</td>
</tr>
<tr>
<td>Partner in Conversation</td>
<td>15.73 (7.3)</td>
<td>7.33 (5.4)</td>
</tr>
<tr>
<td>Fathers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fathers' Availability</td>
<td>55.82 (19.1)</td>
<td>78.89 (41.5)</td>
</tr>
<tr>
<td>Partner in Lessons</td>
<td>1.09 (1.4)</td>
<td>1.44 (2.0)</td>
</tr>
<tr>
<td>Partner in Work</td>
<td>2.77 (2.7)</td>
<td>3.00 (2.4)</td>
</tr>
<tr>
<td>Partner in Play</td>
<td>2.82 (3.7)</td>
<td>9.33 (6.9)</td>
</tr>
<tr>
<td>Partner in Conversation</td>
<td>3.64 (2.5)</td>
<td>3.00 (3.5)</td>
</tr>
</tbody>
</table>
both social groups spent substantially more time with their mothers than they did with their fathers, in that mothers were more often physically available to children. There was little difference overall between the two groups in mothers’ availability (middle class, Mean = 128.82, SD = 35.6; working class, Mean = 125.00, SD = 44.2). There was however, a notable difference in the availability of fathers to children in the middle- and working-class groups, with working-class fathers available more often (middle class Mean = 55.82, SD = 19.1; working class, Mean = 78.89, SD = 41.3).

To qualify as a partner, parents (like any other partner) could not simply be in the vicinity of the child (that is, “available”), but had to play a role in the activity. This role could vary from being quite active (such as managing, participating in, or facilitating the activity) or could be more passive (such as observing). In both social class groups, mothers were more likely than fathers to be partners in their children’s activities; this was true whether expressed as raw numbers or as a proportion of availability. It is interesting to note, moreover, that working-class mothers were twice as likely as middle-class mothers to be involved in play with their children, and middle-class mothers twice as likely as working-class mothers to be involved in conversation. Working-class fathers were more likely to play with their children than to engage in other activities, and they did so three times more than did middle-class fathers.

Why do children become involved in the activities in which they engage? From a unidirectional, adult-centered viewpoint, they might be expected to become involved because those around them, particularly their parents, encourage them to do so and provide them with relevant opportunities. However, by focusing on the child as the center of observations, we were able to examine the extent to which the children both initiated the activities themselves and, if someone else had initiated an activity, how they had become involved in it. Examined from this perspective, it is clear that children were highly active in initiating activities and their own involvement in activities. As shown in Table 4, children were more likely to initiate play than any other activity, which is not surprising, given that this is the activity in which they were most often engaged. Working-class children initiated more play that did middle-class children, but middle-class children initiated more conversations, work, and lessons, respectively. Perhaps of more significance, middle-class children initiated more than two-thirds of their play, half of their

<table>
<thead>
<tr>
<th>Activities</th>
<th>Middle Class (n = 11)</th>
<th>Working Class (n = 9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lessons</td>
<td>3.36 (2.5)</td>
<td>0.89 (1.1)</td>
</tr>
<tr>
<td>Work</td>
<td>4.36 (4.6)</td>
<td>1.89 (1.1)</td>
</tr>
<tr>
<td>Play</td>
<td>57.73 (10.5)</td>
<td>62.67 (24.7)</td>
</tr>
<tr>
<td>Conversation</td>
<td>12.73 (8.9)</td>
<td>5.67 (2.7)</td>
</tr>
</tbody>
</table>
Table 5. Child's Initiation of Involvement in Activities, by Social Class

<table>
<thead>
<tr>
<th>Activities</th>
<th>Middle Class ($n = 11$)</th>
<th>Working Class ($n = 9$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lessons</td>
<td>7.27 (4.6)</td>
<td>2.56 (2.4)</td>
</tr>
<tr>
<td>Work</td>
<td>10.73 (9.2)</td>
<td>11.78 (4.4)</td>
</tr>
<tr>
<td>Play</td>
<td>72.09 (17.5)</td>
<td>102.44 (25.1)</td>
</tr>
<tr>
<td>Conversation</td>
<td>20.73 (11.1)</td>
<td>9.33 (4.4)</td>
</tr>
</tbody>
</table>

conversations, almost one-third of the work in which they were involved, and
one-quarter of their lessons. Working-class children initiated three-quarters of
their play, 40 percent of the conversations in which they were involved, and
approximately 10 percent of their work and lessons.

These patterns were repeated in children's initiation of their involvement in
activities, as can be seen in Table 5. However, both groups of children were far
more likely to initiate their own involvement in activities, regardless of who had
initiated them. For example, someone other than the child was most likely to ini-
tiate the work in which the children became involved; however, the children did
not become involved because the other person asked them to, but under their own
steam in 80 percent of all cases.

What are the implications for children of their engagement in, initiation of, and
initiation of involvement in this range of activities? One of the ways in which we
have explored this question elsewhere is to look at the relation between these
activities and teachers' later perceptions of academic competence (Tudge, Ordero,
Hogan, and Etz under review). We examined a set of activities that we
had predicted would most likely be related to subsequent competence in school
(academic and skill/nature lessons, play with academic objects, and conversations
with adults), and found that middle-class children were more likely than their
working-class counterparts to engage in them. As discussed earlier, the expecta-
tion might be that the children became involved in these activities because their
parents valued them and so gave their children lessons, initiated conversations
with them, and so on. To a certain extent this was true. However, it was also true
that the children started many of the lessons themselves by asking questions, or by
drawing their parents or other adults into conversation. Middle-class children
were more likely than their working-class counterparts to initiate these activities
themselves and to initiate their own involvement in them. As we expected, chil-
dren who both initiated and engaged in more of these activities were more likely
to be viewed as academically competent by their teachers in the first years of
school. Even more interesting was the fact that within each social class group the
same relationship was found (middle class, $r = .48$; working class, $r = .72$) (Tudge
et al., under review).
DISCUSSION

In this chapter we have argued for the need to obtain baseline information about how children use their time, and the value of using naturalistic observations of activities to do so.

Descriptive data have been presented which indicate how preschool children in two different social contexts within a western society spend a typical day. The method provides a rich description of the multitude of activities and persons children encounter in and around the family home in the course of a waking day. The importance of this method goes far beyond the descriptive, however. If researchers are to take seriously ecological and contextual theories, such as those of Vygotsky and Bronfenbrenner, it is essential to have a means of operationalizing the concepts, such as those involved in a Person-Process-Context-Time model. The method that we used allowed us to put a PPCT design into effect, with a focus on children's imitation of activities (an expression of self-directedness, an attribute of the person), children's activities in their natural environments in conjunction with their typical social partners (process), and different social contexts, here expressed as social class, over time. This method, by focusing on the child, also provides a means of taking young children seriously, and examining their world in terms of what they choose to do, with whom they choose to do it.

The importance of the methodology cannot be overemphasized. Some types of data can be gathered effectively in carefully designed laboratory studies. However, it must be recognized that the laboratory is but one specific context, and we know little about how children's behavior in this context relates to their behaviors in the contexts in which they typically find themselves. Naturalistic observational studies are, we believe, a clear improvement on laboratory-based studies. However, they too have their limitations if the context is constrained by the desires of the researcher for "cleaner" studies of family interactions, by constraining the types of activities that are allowed to take place, the people who can be in the context, and the specific contexts themselves. By encouraging a mother to play with her child in a single room in the home, researchers may well get a good sense of how mother–child play occurs under observational conditions. It provides no understanding, however, of the extent to which such play occurs under other, more typical, conditions.

Observational methodology is particularly useful in research with young children who do not possess the language skills necessary to convey information on how they typically spend their time, or indeed on their subjective perceptions of events. Although it has been found that even very young children can give accurate accounts of experiences, there are developmental limitations on what children can tell us about their experiences (Garbarino and Stott 1992). In interview situations, children may reveal less information about how they experience daily life within their families, particularly in socio-cultural contexts where such matters are not discussed openly, and especially not between adults and children. Inter-
views may also raise the possibility that children alter their accounts of experiences because of preconceived ideas of what adults want to hear. This is not to argue that children should not be interviewed about their experiences, but rather to point out that the process potentially has limitations, and that other methods can be used as an alternative, or in addition to, asking children to report to adults. A further advantage of observational methods, shared with child interview methods, is that parents are not asked to validate the child’s report, which is often a problem in the validation of survey instruments (Hodges 1993). Observational methods are also well suited to research on use of time, because the researcher is present to document the numerous activities, social partners, roles, conversations, and so on, that take even short periods of time, and that would be difficult to document accurately using parental reports of how their children spend their time, even if one accepted the marginalization of children ensured by reliance on parental reports.

There are also particular benefits attached to using an activities framework in observational research with children. It allows for investigation of nonverbal behavior, and it helps to counterbalance the mainstream bias toward the study of verbal communications in social interaction. Furthermore, a focus on naturally occurring activities can provide a means to focus simultaneously on multiple tasks, whereas most laboratory-based studies tend to focus on children engaged in a single task or activity (Brice-Heath 1993).

Any observational study imposes some limitations and constraints, the major constraint being that at least one additional person is present in the context, solely for the purposes of observing. It is difficult, if not impossible, to determine the effects of observation on behavior. However, this is a problem that attaches to virtually all research involving humans. Another limitation is that observations alone give limited access to children’s subjective views and feelings, other than those that are expressed spontaneously during the course of activities and interactions. Children may suppress or disguise some feelings in the presence of an observer, while some feelings may simply be nonverbalized. Another limitation is that harmful behavior of others towards children or of children towards one another is likely to be curtailed in the presence of an observer.

In the case of our research, observing everyday activities over lengthy periods during the course of a week minimizes at least some of the potential limitations, we believe. The types of things we were interested in were the behaviors that are typical in any family and that are unlikely to be affected by the presence of an observer—meals need to be prepared and eaten, the child must be woken, taken to a child-care center, or shopping, parents or siblings have to deal with one another, the child must be put to bed. Life, in other words, must go on, even when someone is there to observe.

We accept that the adults around the children who were the focus of our research might have been constrained by the observer’s presence to engage more often than normal in those practices they believed were the “best” and to minimize behaviors they thought the observer might disapprove of. What counts as
best is dependent on values, however, and accordingly we believe that our data may inadvertently show even clearer behaviors related to the parents' values. The children were too young at 30–48 months to self-monitor and alter their own behavior dramatically in the presence of an observer; however, they would have been perfectly capable, no doubt, of noticing unusual behavior on the part of their mothers or fathers. That the children expressed no surprise at the behavior of the adults around them provides further evidence that the adults' behaviors may not have changed markedly. Each child was, of course, interested in the observer and tried, initially, to draw her into their own activities. The observer was able to prevent this by allowing some time for interaction prior to the start of the coding period. Moreover, the fact that the observer was often writing codes or field notes, and had an earphone in both ears (one connected to the receiver from the wireless microphone the child was wearing, and the other connected to the endless loop tape that kept her informed of the passage of time), made the observer considerably less available as a social partner.

We accept also that a reliance on observational methods privileges the observer or the designer of the codes used in the observation. The definitions of the activities in which the children and their partners are involved are defined by the researchers rather than by the children themselves. Nonetheless, it seems to us that this limitation cannot be avoided with children of preschool age, who are too young to be able to reflect on their own activities. The solution of choice for most scholars interested in families with preschoolers has been to use parental reports. Our solution, in common with that adopted by cultural anthropologists, was to focus our observations on what the children were doing, how those activities were initiated, and how the children became involved in them.

As might be expected of children of this age in an industrialised society, children mainly spent their time engaged in play. They mostly played with toys, but watching TV also featured strongly in how they spent their playtime, while play with academic objects also took up considerable amounts of their time relative to other types of play. Conversation, particularly with adults, also featured strongly in the breakdown of their time, and here within-society differences in daily life are clear. Middle-class children were almost twice as likely to engage in conversation with adults, perhaps reflecting a different set of cultural values and beliefs about the nature of parent–child relationships in these two settings.

As we have reported elsewhere, middle-class parents in this study were more likely to value independence in their children, while working-class parents were more likely to value obedience and conformity (Hogan 1996; Tudge et al., 1999). This difference might have led to variations in parents in the two communities valuing certain types of activities and thus providing more opportunities for their children to engage in them. However, we have shown that this is an overly simple explanation, for the children in each community clearly played an active role in creating their environments by initiating activities (either alone or jointly) or by joining in an ongoing activity. This provides an illustration of how the theoretical
concept of child agency can be operationalized, leading to needed information about the processes by which they participate in the co-construction of their own development and of their environments. As such, the value of this method lies not only in helping us to understand what children encounter in daily life, but also how their experiences in their families and broader social contexts have meaning.

The data presented here also illustrate how naturalistic observations of activities can provide needed information on children’s social partners. As expected, mothers were more available to their children than were fathers (six of the middle-class mothers and one of the working-class mothers did not have paid employment outside the home). We found that, across the two communities, mothers’ availability to their children was similar, but working-class mothers were more likely to play with their children, whereas middle-class mothers were more likely to hold conversations with their children. It was interesting to note that, perhaps contrary to common conceptions that middle-class parents are more child-centered than working-class parents, the working-class fathers were more likely to be available to their children than were the middle-class fathers and, proportionate to their availability, working-class mothers and fathers were also more likely than their middle-class counterparts to engage with their children in play.

Although play was the activity dominating the daily routines of children in both communities, their experiences of other activities, especially conversations and lessons, and the persons with whom they typically engaged, pointed to different, culturally organized, daily lives. By observing children’s activities, and the roles and actions of their social partners, we can reach an understanding of the ways in which culturally held beliefs and values about child-rearing are translated into everyday behaviors, where some actions are encouraged and others are discouraged. It is true that observations alone cannot provide us with an insight into children’s subjective perspectives on the makeup of their daily lives, but they can provide us with the necessary descriptive information about the contexts in which children develop and the roles they, and others, play in creating those contexts.

This observational method allows us to create a window, if only briefly, into the ordinary lives of children. It may lead to the discovery that in the home, the natural setting of family life, children’s interactions and activities are quite different that those suggested by extant literature based on research conducted in laboratories or based on information that has been mediated through parents’ reports. It is time to bring children’s lives in their families away from the periphery to become the center of our attention.

ACKNOWLEDGMENT

We are extremely grateful to the families who participated in this research, and to Sarah Putnam and Judy Siddon who collected the observational data. Data collection was assisted by funds provided by Human Environmental Sciences Foundation and by the award of Fac-
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utility Research Grants (both of the University of North Carolina at Greensboro) to the first author, and preparation of this chapter was facilitated by a grant provided by the Spencer Foundation.

REFERENCES


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