

The Anthropology of Learning in Childhood

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CHAPTER ONE PUTTING LEARNING IN CONTEXT

David F. Lancy, John Bock, and Suzanne Gaskins

Few topics in the social sciences have attracted as much attention as “learning,” and that is certainly the case in anthropology—a history that will be detailed in chapter 3. However, anthropologists have not spoken with a single voice—more like the proverbial Babel of tongues. This book, for the first time, brings together in a single volume the varied perspectives of archeologists, cultural anthropologists, evolutionary anthropologists, linguists, and others who share a common bond as anthropologists. Our synthesis aims to represent these scholarly traditions and to find common denominators. In the process, we hope to provide a fresh look at learning in childhood.

The quintessential image of “learning” that some readers may retain from their undergraduate education is of a pigeon or a rat pecking or levering away for a reward in a “Skinner box.” David Lancy, in fact, “ran” just such experimental trials as an undergraduate. Anthropologists in no way deny the validity of well-established ideas such as “operant conditioning,” or more contemporary models of learning from the perspective of information processing, but do tend to see learning in more complex terms.

We began our collaboration on this book with each of us bringing a different conceptualization of learning in childhood from our own sub-disciplinary perspective. We viewed this diversity in interest as strength. David Lancy, an ethnographer, draws inductive inferences from a corpus of ethnographic data. His perspective emphasizes the individual experience of enculturation and the commonalities and differences across the

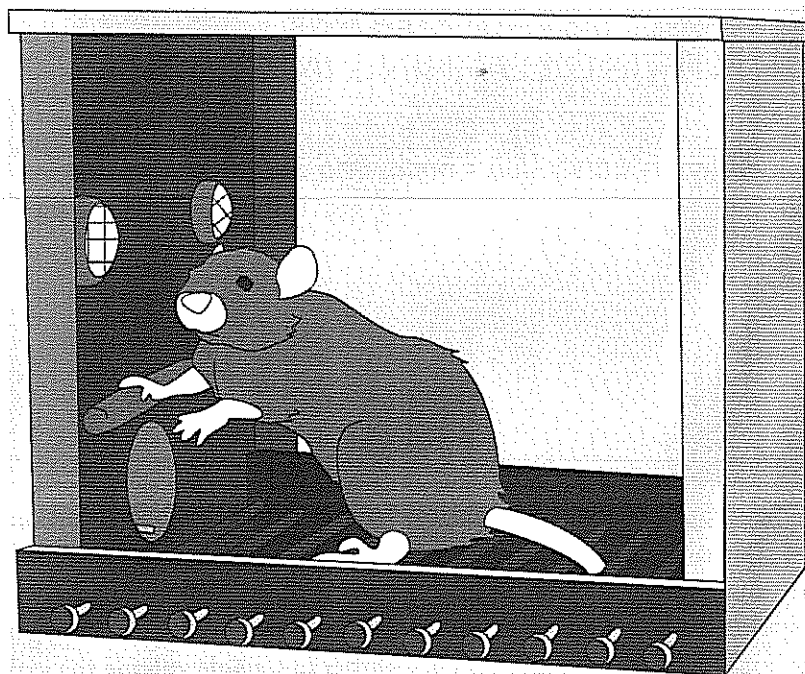


Figure 1.1. Skinner box: device used to study learning (A. Black graphic)

form and function of childhood in cultures varying in geographical and temporal dimensions. John Bock, an evolutionary anthropologist, focuses on the ways that the environment has shaped the basic human pattern, and how through the process of development individuals respond to their own social, ecological, and cultural contexts. Suzanne Gaskins, a psychological anthropologist, concentrates on the production and reproduction of culture by individuals' construction of meaning from experience.

Despite our differences, the editors are united on six general principles that we think inform the range of anthropological perspectives on learning and that have guided our editorial work on this volume. First, and most foundational, when anthropologists look at childhood through an evolutionary lens (chapter 2), they note some unique aspects, relative to other species. In particular, for humans, the *length* of the period of immaturity is elongated and this is accounted for, in some theories, by brain growth and the acquisition—via learning—of all that constitutes “culture.” The flexible and powerful capacity of individuals to learn and

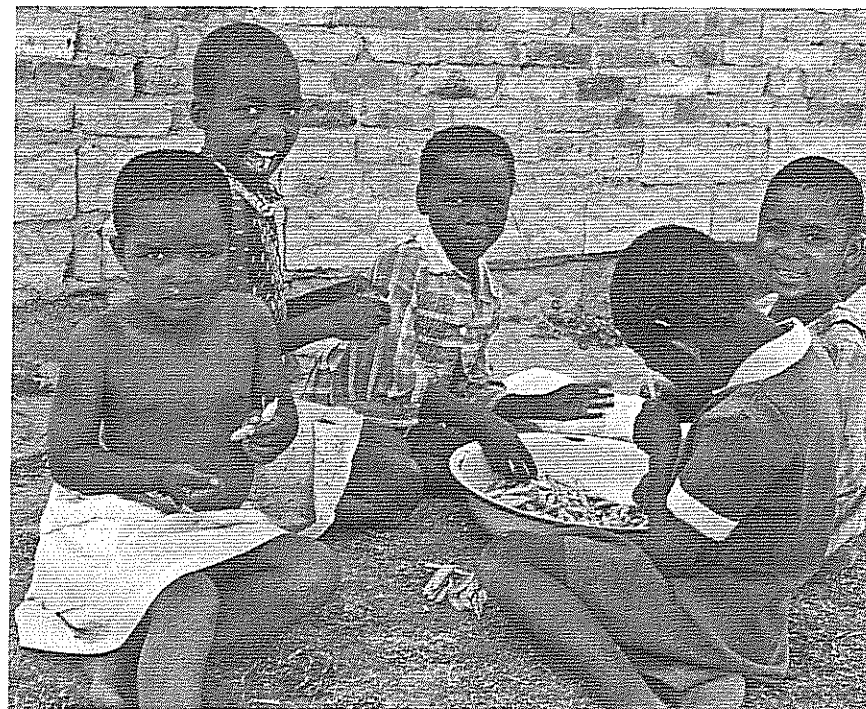


Figure 1.2. Shelling peas in Lesotho (B. Sypkerman photo)

the need for each new member to acquire a wide range of cultural knowledge are sometimes seen as two sides of the same coin, and the coin itself is unique to the human species.

The second principle is that while cultural information is universally transmitted between generations through teaching and learning, there is wide variation in the specific knowledge to be passed down. Humans are unique in that the end points of learning, “objectives” or “outcomes,” are culturally defined. As anthropologists have recorded, there is considerable variation in what production skills children must learn in pastoralist, forager, and farming communities (chapter 15). And cultures vary widely in their belief systems, cultural institutions, and social practices. Learning objectives can vary within a culture, too. For instance, in many nonindustrial societies, gender is typically a powerful mediator of what children are expected to learn (chapter 12). Morality and character are often important socialization targets (chapter 11), and language is a powerful socialization medium for transmitting cultural ideas (chapter 10).

The third principle, often referred to as *parental ethnotheory*, is that a “culture,” to support the transmission process, will always include well-established ideas on when and how the child can be expected to learn the behaviors and skills that are valued and which confer success (chapter 4). Equally important are notions about whom the child should look to for guidance and instruction—often a sibling (chapter 8). Dramatic variation exists in the ethnographic record on issues such as the age at which children become teachable or the appropriateness of corporal punishment to aid the learning process (chapter 7).

The fourth principle is that learning—at any age—is embedded in social processes that are not necessarily organized for learning. The societies that have attracted the greatest attention from anthropologists have usually lacked formal educational institutions (aside from initiation rites). To “find” learning, we have to follow children around rather than comfortably situating ourselves in a classroom. The locus for learning may be the home (chapter 16), the village, farm, or bush (chapters 13 and 14), and when we do study learning in schools (chapter 9), there is the predilection to focus on the ad hoc or socially constructed aspects of what may otherwise seem a decontextualized process.

The fifth principle is that children must take an active part in pursuing their own education. The single most important form of learning is through observation (chapter 5). Following the careful verbal instructions of a teacher, on the other hand, is rarely observed. Children are expected to negotiate a steady state in which they are learning what is expected in order to shoulder a larger and larger share of the household economy while also meeting personal needs and goals. Such a state might be achieved, for example, when a child is able to learn and/or complete chores while playing (chapter 6).

The sixth and last principle is that learning as a process is influenced by the fact that children are simultaneously being and becoming. Children can be seen as acting in the moment, behaving appropriately for their age, but also moving on a developmental trajectory toward adulthood. This duality is particularly evident when we look at children playing (chapter 6) or surviving in the streets (chapter 17). As culture is dynamic, any theory of learning in culture must address the impact of change on children as well as the potential impact on culture of children acting as agents of change. The last two chapters look at children in the midst of rapid

social change and include a survey of rural children learning in novel contexts—classrooms, in the midst of civil conflict, as immigrants to a foreign country, and in the streets of large cities.

In sum, anthropology’s perspectives suggest that learning in childhood occurs through participation in socially meaningful contexts over an extended period of immaturity. It is organized by culturally specific ideas about desirable learning outcomes and effective means to achieve them, as well as children’s individual abilities and motivations and their responses to ecological conditions. Children actively pursue learning in the present in order to be productive participants in their current everyday environments and over time in order to become fully functional adult members of their community, even as it might be undergoing cultural change or stress.

Overview of the Volume

In part I, we provide the essential background material for an understanding of anthropological research on learning in childhood. Chapter 2, by John Bock, reviews evolutionary perspectives on children’s learning. It discusses views on the possible function of childhood as a distinct stage in human development, and how natural selection has shaped childhood to respond to social, cultural, and ecological features of children’s environments. Much of the thinking on these issues is associated with a fairly new perspective in anthropology, “life history theory.” Chapter 3, by Robert L. Munroe and Mary Gauvain, traces the trajectory of scholarship in anthropology from Malinowski and Mead in the late 1920s to contemporary work on childhood among hunter-gatherers. The authors document the alteration, over time, between concern for finding universals in children’s patterns of learning and development and concern for local variants. They also reveal the continuing theoretical engagement between work in child psychology—often claiming universality of a particular phenomenon—and cross-cultural findings that undermine such claims. In chapter 4, by Sara Harkness, Charles Super, and others, we learn of the importance of cultural models and parental ethnotheories in shaping the family’s and community’s treatment of the child as a learner. While the previous chapters highlighted anthropological or scientific perspectives on children’s learning in village (and more recent studies of urban) settings, the Harkness et al. chapter counters with folk or native views on the same subject.

As we indicated above, a highlight of the anthropological study of children's learning has been to acknowledge and document the profoundly social nature of the process. In part II, *Learning as a Social Process*, we explore these processes in depth. Suzanne Gaskins and Ruth Paradise, in chapter 5, unpack an often invoked but rarely analyzed process—observational learning. Drawing on psychological theory and ethnographic accounts, they establish the basic elements that one can expect to find in any study of children's observational learning in culture. The anthropologists' initial field notes are often replete with instances of children playing and working and the interconnections between them—the subject of chapter 6, by Garry Chick. Chick shows that, despite this ubiquity, defining work and play and demonstrating how they are learned is not straightforward. But some things seem quite clear, including the consistent differentiation in play and work as a function of gender (for example, that girls transition from play to work earlier than boys). Chick also complements the chapter by Harkness and Super in discussing parental views on the value and functions of play in children's learning.

The next two chapters review work on the significant individuals who act as caretakers, role models, and teachers for children, particularly adults (chapter 7) and peers (chapter 8). In chapter 7, David Lancy and Annette Grove review research where the child's progress in learning is monitored or accelerated by watchful adults who rely on local theories of teaching and learning. These occasions include the teaching of kin terms and politeness conventions, locomotor skills, chores, craft skills, and adolescent rites of passage. In chapter 8, Ashley Maynard and Katrin Tovote contrast societies where parents are heavily involved with children's development with those in which siblings, as primary caretakers, fulfill the role of guide and teacher. Their chapter also explores the influence that schooling has on patterns of sibling interaction and instruction. The gulf between the informal teaching and learning which are characteristic of children maturing in the village and the more formal processes which are observed in schools is taken up by Leslie Moore in chapter 9. Moore notes the extensive reliance on rote memorization and learning in a second language that is characteristic of both Muslim and state-sponsored public schools. However, she expands our limited perspective on memorization, demonstrating its importance in conveying more subtle, value-laden aspects of the two modes of schooling.

The work reviewed in part III, *Learning Cultural Meanings*, falls under what has typically been referred to as socialization, defined as "the deliberate shaping of individuals to become adapted to the social environment" (Schönpflug and Bilz 2009, 213). Laura Sterponi, in chapter 10, reviews research in linguistic anthropology—in particular, studies of language socialization. She demonstrates that children's communicative competence is molded and organized by sociocultural processes and, when language refers to social relations, speaking is dependent on understanding the social system; conversely, socialization is often mediated through language. In chapter 11, Heidi Fung and Ben Smith look at the socialization of morals, values, and behavior. This chapter discusses studies of how children learn the cultural meaning of morals through everyday interactions and socialization practices such as play, teasing, and shaming. While there are a limited number of studies in this tradition, they span the history of anthropology's study of childhood and have been central to the cultural analysis of children's self-construction. In chapter 12, Heather Montgomery considers a sample of a larger corpus on this very important topic. She first looks at the ritual and customary actions associated with a newborn, revealing how much of this symbolic action is aimed at defining gender. Next she moves on to middle childhood, showing the sharp demarcation of gender roles that emerges at this time, and lastly she considers the role of initiation ceremonies in shaping gender identity.

Anthropology's unique value to scholarship in children's learning is particularly evident in part IV, *Learning to Make a Living*. On display in this section are rich, multifaceted reviews of learning in focused skill areas. Kerry Ossi-Lupo is a primatologist studying how juvenile monkeys learn from interacting with and observing adults. In chapter 13, she discusses research on the evolved patterns that shape the way juvenile primates develop social awareness and skills that pay off in terms of their learning to forage or learning to care for their offspring. Rebecca Zarger, in chapter 14, applies a cognitive anthropology lens to view children's learning in the natural world. The chapter discusses how children learn to name, use, and categorize natural kinds. Katharine MacDonald, in chapter 15, explores the central role hunting has played in human evolution and surveys the broad literature on children's learning to hunt. She develops a template or model of the life cycle of the successful hunter that she then applies to an analysis of fossil remains that suggest the origins

of hunting in the Palaeolithic era. Patricia Crown, in chapter 16, also draws on both ethnographic cases as well as the archeological record to analyze Puebloan children's learning the skill of pottery-making. These analyses have yielded insights into the age at which ceramic work is first essayed, the task components as they were broken down and as evidence of emerging skill, the role of adults in children's pots, and children's contributions to adult-made pottery.

Part V, *Learning in the 21st Century*, examines the lives of children during a period of rapid cultural change. In chapter 17, Jon Wolseth draws on his fieldwork and experience working with a nongovernmental organization in Santo Domingo to describe how children adapt to street culture. In particular, he shows how children move among various "careers" or niches that are open to an enterprising child. Wolseth also discusses how an applied anthropological approach to the study of street children can be critical in the development of effective intervention programs. In chapter 18, David Lancy examines the transitional state in which many children can be found today. He first reviews the perilous state of classroom learning in third world communities that leads to heightened but ultimately unfulfilled expectations. He then reviews how socialization is radically altered when parents and other adult kin are largely absent from children's lives (as is the case with street children, orphans, and child soldiers) or become less relevant (as is the case with immigrant children).

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CHAPTER TWO AN EVOLUTIONARY PERSPECTIVE ON LEARNING IN SOCIAL, CULTURAL, AND ECOLOGICAL CONTEXT

John Bock

The form and timing of human childhood (here I use the term to encompass the entire juvenile period: infancy, childhood, and adolescence) are products of evolution. That evolutionary foundation underlies both the consistency and variation we see in children's growth and development in physical and cognitive dimensions. The great behavioral flexibility and complexity children exhibit in negotiating the social, cultural, and ecological context of their lives are themselves evolved characteristics. Because childhood has been shaped by natural selection, it is not possible to fully comprehend or interpret the entirety of childhood without integrating an evolutionary perspective. Viewing childhood through an evolutionary lens leads to several insights. Features of childhood such as the long period of growth and development, post-weaning dependence, and the patterning of learning and skill acquisition are best identified and understood as products of a selective history. This selective history is the result of an accumulation of successful adaptations to the environments of our ancestors.

This chapter reviews the evolutionary ecology of childhood and discusses the ways in which that history of adaptation plays out in varied social, cultural, and ecological contexts of today. We begin with the evolved pattern of reproduction and parenting, or the life history of humans as seen as part of the order Primates. This leads to a more detailed analysis of how the maturational process in humans interacts with the evolutionary substrate of learning to produce the capacity to successfully function in varying social, cultural, and ecological contexts. We can develop a new

understanding of children's learning in context through the analysis of the ways that growth and experience interact in the development and acquisition of skills and knowledge.

Differing Costs and Benefits to Different Patterns

Imagine a being without childhood. Such a being would emerge into the world fully formed and able to function as an adult. This creature would not grow or develop in the sense that we use these terms in discussing children. Such creatures do occur in nature. Many single-cell organisms separate from a parent and immediately function as almost identical copies—there is no period of time separating emergence and adulthood, there is no growth, there is no learning, and there is no development. A system like this works in an environment that does not change, and where it is possible to imbue an offspring with everything it needs to function without a developmental stage. An offspring emerges with full adult capacity without undergoing maturational processes.

What do such organisms gain by entering the world as adults? First, they are able to reproduce right away, virtually guaranteeing some reproductive output and avoiding the possibility that the individual could die (through predation, accident, or disease) before reproducing. Another way of saying this is that all of the energy that would have been devoted to growth and development is available for reproduction. This is important because all organisms face limited energy budgets. Energy allocated to one purpose is precluded from allocation to other purposes. Second, because they start reproducing right away, they can have more offspring compared to an organism that waits before reproducing.

These benefits, however, are counterbalanced by costs. An individual who is born as an adult has no time to shape physiology, morphology, or behavior to adjust to the environment. If the risk of mortality is quite high, then it makes evolutionary sense to start reproducing right away. If mortality is a little lower, then there is less risk of dying before reproducing if an individual spends some time growing and developing. But this comes at a cost to the parent, who must devote some energy away from its own further reproduction to ensuring the survival of the growing offspring. Because natural selection works in an economical fashion, the pattern of energy allocation to growth and reproduction will represent

the optimal mix of benefits. The direction of natural selection is based on features of the environment such as the probability of mortality, so this pattern, or life history, of a taxon (a grouping of organisms such as family, genus, or species) is the best fit to the environment.

Trade-offs in Energy Allocation

In the aforementioned bacteria, an offspring buds off of a parent and emerges as a fully formed, functioning adult. In this case, any developmental period has been traded off for reproductive maturity, or current reproduction has been favored over future reproduction. But because all of the reproductive output has been put into one individual, that individual is large and fully capable. There is another trade-off that parents face, and this is between the *number* and *quality* of offspring (Stearns 1992). Here, quality is a synonym for the ability to survive to reproduce—the higher the quality, the more likely an offspring will survive to reproduce itself. Rather than putting all of her reproductive output into one or few individual offspring, it is also possible for a parent to spread reproductive output over large numbers of offspring. Because the energy available to parents is finite, however, spreading reproduction over more offspring results in having to “divide the pie” more ways. So organisms that have large broods usually have small offspring. In nature, small size equals increased vulnerability to predation and other threats, so the likelihood of surviving to reproduce is much lower in these organisms.

In an environment where mortality is high because of environmental unpredictability, there seem to be two ways to increase the likelihood that at least some will survive to reproduce themselves—have very few, high-quality offspring or have lots of low-quality offspring. Most or all of the high-quality offspring survive, but few of the low-quality offspring survive. In either case, usually enough survive to perpetuate the species, but this is because natural selection has led to the strategy that is the best fit with the environment for that taxon.

Life History Evolution

Within evolutionary ecology, we use life history theory to understand adaptation to a specific environment based on these two central trade-offs—

between current and future reproduction and between number and quality of offspring (Stearns 1992). The level of mortality within an environment and whether that mortality is more likely early or later in life are major determinants of this pattern (Charnov 1993). Features of the environment such as the number and distribution of predators, the temporal and spatial availability of food, and the physical environment all act as selective forces on life history patterns. Life history theory has been very effective in explaining the patterning of fertility, growth, reproduction, and mortality across different taxa, from the level of the family to the level of subspecies.

The Primates

If we look at the order Primates compared to other mammals, primate individuals tend to be long lived and slow growing (Charnov and Berrigan 1993). This indicates that the environment in which primates evolved had a lower level of extrinsic mortality (death due to outside forces such as predation or climate) than for other mammals. Through the primate lineage, it is clear that there has been consistent directional selection for longer life spans and slower growth (Leigh 2001). If we view the life history of an organism as having some distinct phases such as gestation, juvenility, and maturity, then it seems clear that among the primates these phases have stretched out in proportion to the longer life spans. Across the Primates order, from tiny prosimians to great apes, we see the same relative proportion of length of immaturity to life span (Charnov and Berrigan 1993).

There has clearly been another source of directional selection in the primate lineage—selection for increased brain size and behavioral complexity. The source of this selection will be more fully explored in chapter 13 by Kerry Ossi-Lupo, but there appear to be two: foraging in more complex niches and living in social groups. These two selection pressures interact because, for individuals within a social group, being able to find and extract food resources depends on the level of cooperation and competition with other members of the group (Johnson and Bock 2004). Within the Primates order, selection has acted on the benefits accrued to individuals who have more behavioral complexity and flexibility to successfully negotiate the challenges of food acquisition and sociality. In a very general sense, successive grade shifts of primates (prosimians to

monkeys to apes to hominids) have moved into successively more complex subsistence and social ecologies. Each of these grades, in general, has longer lives, longer juvenile periods, and larger brains with increased behavioral complexity and flexibility.

The Maturation Process in Humans

In relation to the two central life history trade-offs, the human pattern favors future reproduction over current reproduction—that is, growing a long time before reproductive maturity—and favors quality of offspring over number—that is, having a few offspring who have a very high likelihood of surviving and reproducing (Kaplan et al. 2000). We grow more slowly than most other primates and we are apparently unique in having a long female post-reproductive period (Hawkes et al. 1998). We also have an extreme and unique level of behavioral complexity and flexibility compared to the other primates. The human life history pattern is one of slow growth, extended juvenility, relatively few offspring, and long life span (Bogin 1999). The phases of the maturational process can be demarcated by morphological changes. Some of these vary little across individuals and are relatively insensitive to environmental cues, such as the duration of gestation. One reason for this was that selection on the specific timing of these events was so strong that variation has been eliminated. The length of gestation and the helplessness of human newborns are an example of stabilizing selection resulting from two opposing selection pressures.

One of the first traits produced by natural selection that differentiated humans from our ancestors was upright bipedal posture and locomotion. There are several hypotheses about the emergence of this trait, but it seems that, in general, bipedality was a way to move more efficiently for long distances in a more open environment. Our earliest human ancestors were very apelike in terms of their brains but much like us in their hips, legs, feet, and other parts related to walking upright on two legs.

That same environment afforded advantages in acquiring resources and negotiating social relationships to those with flexible, problem-solving behavior. Over time, brain size increased in response to selective pressure in our hominid ancestors. At some point, these two traits came into conflict. There was selection for larger brains related to enhanced behavioral complexity and flexibility, but selection for upright posture and

locomotion had drastically reshaped the pelvis. This resulted in opposing forces—the selective force to keep the pelvis the same was opposed by selection for the bigger brain.

As anyone who has experienced or witnessed childbirth knows, it's a tight fit when the baby emerges. The average baby's head is about as big as it can be and still make it through the birth canal. But natural selection has worked to maximize what can be done. Babies' heads compress as they twist their way around the bones in the pelvis in a corkscrew fashion.

This still is not enough to allow the brain to develop as much as it does in our ape relatives in utero. So humans are born with a lot of development to do outside the womb—development that occurs within the womb in our nonhuman primate relatives and many other mammals. These relatively undeveloped infants need a lot of care and can do much less for themselves than other primate newborns.

Other maturational markers such as teeth emergence have windows, sometimes overlapping, where these events occur (Bogin 1999). This may be due to underlying genetic variation coupled with some environmental sensitivity. Events such as the development of walking and language (Knudsen 2004) have sensitive windows where exposure to environmental stimuli not only paces development but, in the case of language, has a huge effect on the developmental outcome, that is, the language(s) spoken. In English, we speak of children “learning to walk” or “learning to speak,” but we can think of these as developmental processes in which the outcome (walking, talking) is the result of physical maturation coupled with experience. As many who have attempted to learn to speak a foreign language as an adult can testify, once the underlying maturational process is completed, it is difficult to forge neural connections even in the context of substantial exposure and experience listening to another language.

Some maturational markers, however, are highly responsive to environmental cues, especially post-weaning growth and reproductive maturation. Children's bodies are very sensitive to the amount of resources, such as food energy, present in the environment. The level of resources available and protection from infection, mediated by the cultural, social, family/household, and ecological context, can advance or delay growth and maturation (Bogin 1999; Panter-Brick 1997). Infection uses resources to repair damage that otherwise would be devoted to growth. Girls with access to high levels of resources tend to reach menarche substantially earlier

than girls who are in low-resource environments and/or subject to infectious disease (Eaves et al. 2004). Boys, while somewhat less responsive to the environment in terms of reproductive maturation are still highly sensitive to environmental conditions affecting growth (Eaves et al. 2004).

The Evolutionary Substrate of Learning

Of all of the body's systems such as musculoskeletal, dentition, endocrinological, and reproductive, the neurological system achieves maturity earliest (Bogin 1999). However, developmental processes continue within the brain and neurological system into adulthood. There are two major schools of thought regarding selection for increasing brain size through the hominin lineage. The complex social systems of primates may have conferred advantages in reproductive fitness (genetic representation in succeeding generations) to individuals who were better able to navigate social relationships through alliances, manipulation, and/or dominance (Joffe 1997; see chapter 13 for a thorough review). Clearly, many nonhuman primates that share ancestry with humans have dominance hierarchies, sometimes inherited through the matriline, as in many Old World monkeys. Studies have demonstrated advantages in access to resources, fertility, and the survivorship of offspring in several of these taxa (Johnson 2003; Silk 2007). It is also becoming increasingly clear that alliance formation may confer distinct advantages that translate into increased fitness (Nguyen et al. 2009). Other studies have demonstrated the capacity for manipulation and deception among nonhuman primates (Byrne and Whiten 1988).

Equally compelling arguments have been made for ecological competence as the major selective force on increasing brain size (Barrickman et al. 2008; Kaplan et al. 2000). Movement into increasingly complex, extractive foraging niches requires more cognitive abilities related to memory, such as the location of resources distributed patchily in space and/or time, identification of ripeness and other attributes of palatability, and extraction techniques. Hominid evolution in particular seems to have been marked by several shifts into increasing reliance on extracted and embedded resources (Kaplan et al. 2000) such as roots and tubers, nuts, and meat. Increased reliance on these sorts of resources confers fitness benefits on those with enhanced cognitive abilities related to the utilization of

these resources. Within the hominid line, intensive tool manufacture and use may be a direct outcome of selection for these abilities (see chapter 15) which appear to be related to individuals' abilities to retain images in memory, operate in multiple dimensions, and coordinate precise movements. It has been argued that these manipulative abilities are not unlike some aspects of social manipulation (Tomasello et al. 2005). Because the large brain and advanced neurological system have increased metabolic demands, there may have been a feedback system where increased cognitive abilities led to greater harvesting of high-quality resources, such as animal products, which in turn provided more fuel for brain growth in an iterative process (Aiello and Wheeler 1995).

Social and ecological context, however, do not function independently of one another (Johnson and Bock 2004). Cognitive ability or the strength necessary to extract a high-quality resource does not guarantee access to that resource. Other individuals, often from the same social group, may be competing for the same high-quality resource. We can expect that there would be strong selection for the ability to navigate social relationships to successfully compete for resources within one's social group. But the ability to navigate social relationships has additional benefits with regard to foraging. Through observation and imitation, individuals can acquire the skills to be successful at complex foraging tasks. This may be through proximity to closely related individuals, such as mother-offspring dyads in chimpanzee termite fishing (Lonsdorf 2006). Or this may occur through observation of competent individuals in a social setting (King 1999). Disentangling the contribution of social and ecological context in the selective history of increasing hominin brain size will be an ongoing project for many researchers. While it may not be clear at this point whether the selection pressure from social relationships or foraging came first, it does seem to be the case that continued interaction between these domains would jointly push brain size to increase.

The large brain and advanced neurological system that has evolved in humans allows for great behavioral complexity and flexibility (Deaner et al. 2007). The selective history of this system provides the structure of that complexity and flexibility. Children become competent in languages in which they are exposed early in life, and easily become facile in several languages whose use varies by social context (see chapter 18). Children reach high levels of competency in understanding their physical environ-

ments at a young age (see chapter 14). People are adept at understanding complex social and political relationships regardless of the cultural setting (Henrich and McElreath 2003; Patton 2005). Children quickly acquire an understanding of their own familial and social relationships (Toren 1990) and even of the political structure of their community (Bridges 2009). Children are adept at understanding the norms and values of their community (McElreath 2004; see chapter 11). All of these abilities are learning strategies shaped by natural selection (McElreath 2004). The timing of acquiring these specific abilities is also the result of natural selection on the patterning of developmental trajectories (Bock 2002a, 2005; Bock and Johnson 2002), which will be discussed further below.

These learning strategies encompass many ways that children acquire information that will be explored in this volume, including through observation (chapter 5), guidance by adults (chapter 7) and siblings (chapter 8), active teaching (chapter 9), and trial and error. It is clear that most learning takes place within a social context, and that through a variety of means children seek out and retrieve information through their own devices. Even though parents and others may manipulate children's time and activities so that they are more likely to be exposed to certain types of information (chapter 7), learning arises from within the child.

The Development of Capacity

Two areas appear to be interacting in the development of adult competency (Bock 2002a). The first area is the growth and development of the body. Children have lower levels of ability than adults in certain tasks simply because they are smaller and weaker. Second is the development of the brain and neurological system and the concomitant changes in cognitive ability. These two interacting processes affect children's abilities to evaluate and negotiate ecological, social, and cultural contexts. Because these contexts vary so widely across time and place, the ways in which these processes interact have also shown great variation. Kaplan and colleagues (1995, 2000; Kaplan and Bock 2001), integrating human capital models from economics (Becker 1993) with life history models from biology (Charnov 1993; Stearns 1992) coined the term "embodied capital" to encompass all of the physical and cognitive attributes that are related to the development of adult capacity. The punctuated development model

expanded this concept by more explicitly differentiating between attributes that increased with growth, or “growth-based embodied capital,” such as physical strength, coordination, muscle memory, and size, and those that increase with experience, or “experience-based embodied capital,” particularly cognitive functions and memory (Bock 2002a; Gurven and Kaplan 2006). Clearly, these interact at a most basic level, since experience affects growth as discussed above.

If we visualize any productive task, there is a certain amount of strength, size, coordination, and stamina, among other physical attributes, required to be successful. All of this constitutes growth-based embodied capital. At the same time, there are few activities that do not require specialized knowledge of technique or material that is gained through experience, whether learned from observation, teaching, or trial and error/practice. From the standpoint of efficiency, it makes little sense to engage in an activity unless an individual possesses the necessary combination of growth-based and experience-based embodied capital to be effective (see chapter 7).

An example is from my own fieldwork in a multiethnic community in the Okavango Delta of Botswana. About 400 people from five ethnic groups—Hambukushu, Dceriku, Wayeyi, ||anikhoe, and Bugakhoe (see Bock and Johnson 2002 for a complete ethnographic description)—live in this community, engaging in a variety of subsistence pursuits. Farming (without irrigation and often without the aid of draught animals), fishing, hunting, and herding cattle and goats are the most common economic activities, with a very few people participating in wage labor and remitting funds to their families. Historically the San-speaking ||anikhoe and Bugakhoe have been foragers, and the Bantu Hambukushu, Wayeyi, and Dceriku have been farmers, fishers, and herders, but today many families are involved in all economic pursuits to varying degrees. Still, the ||anikhoe and Bugakhoe have very few cattle and emphasize foraging over other activities. At the time of our studies, there was no school in the community, and the few children attending school were boarded in another community.

We measured individuals’ productivity at different tasks widely seen in the community as critical skills for adult competency. These included pounding grain in a mortar and pestle and processing mongongo nuts. The grain pounding and mongongo nut processing data were collected

through experiments where individuals were given a set quantity of material and asked to process the grain or mongongo nuts in the usual way. We timed individuals and measured the amount they produced over a set amount of time. Because we had a representative age distribution for both males and females, we could see how age related to the ability to perform these tasks. We could see how long it took for children to achieve adult competency. Girls, who spend substantial amounts of time *pretending* to pound grain and observing adult women pound grain, achieved adult levels at about 14 years old. Boys, who did not have the same experiences,

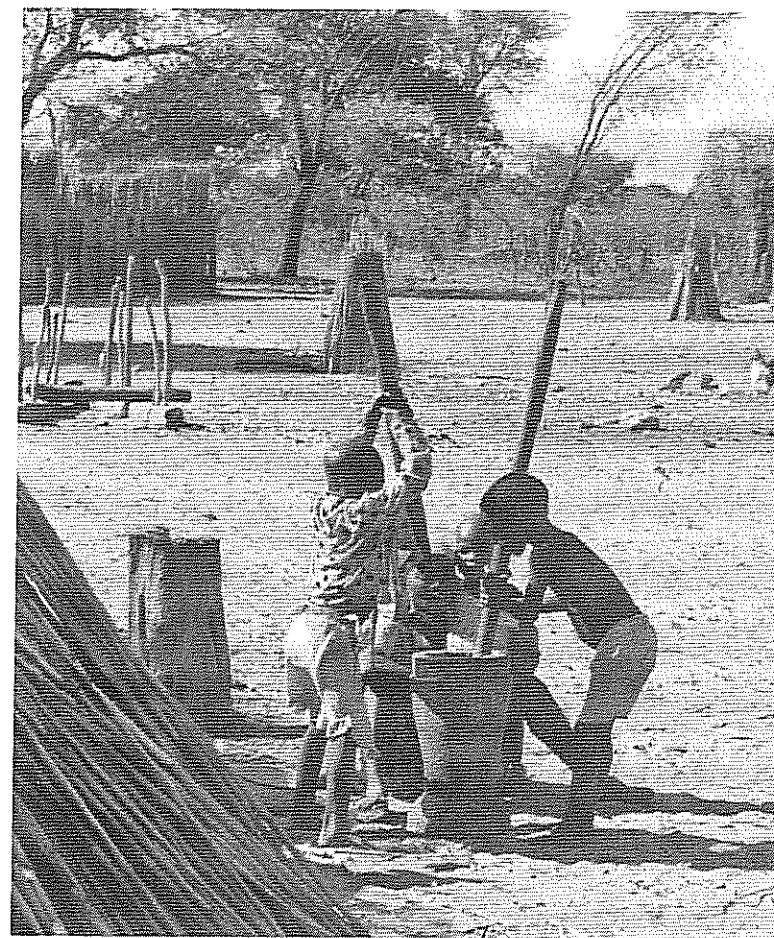


Figure 2.1. Two girls process grain while their grandmother and a younger girl look on (S. E. Johnson photo)

never reached adult women's capability. We can conclude, then, that it takes until about age 14 to have both the necessary physical characteristics such as strength and coordination and the necessary experience to become a competent grain processor. A 14-year-old boy in this community might have equal or even greater strength and body size compared with a 14-year-old girl, yet because his experience has been different, he doesn't become competent. So we can say that it takes until about age 14 to learn to process grain (Bock 2002a).

Mongongo nut processing is another economically important activity for many families in this community. These wild nuts are collected by people of all ages, usually girls and women, and are usually processed by women. The processing consists of two stages—removing a very hard outer shell and then removing a softer inner shell. The goal in processing is to remove this hard outer shell leaving the inner shell intact, so that the nut stays protected but in an easy-to-use form. Removing the outer shell is done with an upward-facing axe held between the legs. A nut is placed on the axe blade and broken upward with a sharp downward blow with a piece of metal or wood. Community members explained that this is a hazardous job and is not appropriate for very young children. Most people agreed that about 10 years old was an appropriate age for girls to begin learning this task. In order to understand how long it took to become an effective processor, we asked males and females 10 years and older to participate. We found that women did not peak in their abilities until they were in their mid-30s. Men never reached women's capacities. Using the same logic as we used for the grain processing example, we concluded that mongongo nut processing was an extremely difficult activity that took over 20 years to master (Bock 2002a), considerably longer than the 10 years to learn effective grain processing.

In an efficient system, we would expect experience-based embodied capital to track growth-based embodied capital. In other words, it doesn't pay to acquire knowledge about how to do something too much before one has sufficient physical attributes to be successful. This is because the amount of time anyone can devote to all the activities he or she participates in is finite. Spending time on one activity means it can't be spent on another. Therefore, there is a cost to learning a skill without an immediate benefit. If that time could be spent learning a skill for which there is an immediate payoff, then it is more efficient to learn the skill with the

present benefit. This is especially true if there will be further opportunities in the future to learn the aforementioned skill with future benefits. Of course, in reality there are delayed benefits to acquiring many skills, which will be discussed below. So it makes sense that the relationship between growth-based and experience-based embodied capital is one of incremental change in that one leads to incremental change in the other. One can visualize this as a series of steps. An increase in physical ability provides an opportunity to apply knowledge, with this pattern repeated until adult competency is achieved.

In our evolutionary history, the action of natural selection should have been operating on the timing of these "steps" so that sensitive windows for acquiring certain cognitive skills follow certain biological markers of maturation. The punctuated development model predicts the timing of these sensitive windows (Bock 2002a; Gurven and Kaplan 2006; see chapter 15). Since Piaget, there has been significant attention on the 5- to 7-year-old period, or middle childhood. Based on models from nonhuman primates, paleoanthropological data, and ethnographic descriptions of living foraging peoples, weaning seems to have occurred at 3–4 years old during our evolutionary history. The switch to post-weaning foods is accompanied by a plateau in growth. During this growth plateau, children take on a more independent role in their cultures (see Lancy and Grove 2009 for a complete review of changes in children's cultural roles related to maturational stages) and display rapid brain growth (Somsen et al. 1997). Another period of rapid cognitive development and brain growth occurs after the adolescent growth spurt at the onset of puberty (Sowell et al. 2001).

In some ecological contexts, the distribution and abundance of resources and the simplicity of the food production technology allows young children to function at near adult competence (Lancy 1983). There are subsistence ecologies that do not rely heavily on complex tasks, such as some forms of farming (Kramer 2005). Bliege Bird and Bird (2002) found that Merriam Island children reached adult competency at very young ages in gathering marine resources such as shellfish. In subsistence ecologies that rely more heavily on skills that take long periods of time to acquire—the case in many foraging societies—children do not become competent food procurers until late in childhood or even into adulthood (Bock 2002a; also see chapters 14 and 15). Among Ache foragers in

Paraguay, hunting ability, as measured by returns, does not peak for men until the late 30s (Gurven et al. 2006; Walker et al. 2002). This is an indicator that, even after the body stops growing, men are acquiring knowledge and skills that improve their ability. While the ability to shoot a projectile accurately can be acquired relatively quickly (Blurton-Jones and Marlowe 2002), the cognitive abilities related to tracking are extremely complex and take many years to develop (Liebenberg 1990). Hunting is not unique in these characteristics. Our study of mongongo nut processing (Bock 2002a), demonstrated that other tasks in foraging societies have these intense cognitive demands. The selective force that has driven the human pattern of development is, in a larger sense, *ecological* competence. Industrial society may represent an extreme case, where most information is hidden and difficult to access and many activities require mastery of a complex sequence of skills.

Children's ability to navigate social contexts also is the result of the interaction of growth and experience. Small body size may limit an individual's abilities to act in many social situations, and greater cognitive development allows more complex and flexible responses to social context (Flinn and Ward 2005; Locke and Bogin 2006). Variation in social complexity also affects the age at which the child can reach adult competency. It is common in many societies for ability at productive tasks to be used as a marker of social status (Henrich and McElreath 2003; also see chapter 7).

Trade-offs between Skill Acquisition and Productivity

The extended juvenile period in humans—the period prior to reproductive maturity—may be the result of two separate selection pressures, selection for a long life and selection for greater behavioral complexity and flexibility (Kaplan et al. 2000). It may be that these two selection pressures have been interacting in a synergistic fashion, so that longer life allows for greater behavioral complexity and flexibility that in turn are used to increase the life span (Kaplan et al. 2000). This long juvenile period is characterized by dependence on other individuals. Part of this is due to the smaller body size of juveniles (Janson and van Schaik 1993) and part of this is due to the lower level of skill that juveniles exhibit in obtaining food (Johnson and Bock 2004). This period of dependence is

characterized by its own set of trade-offs that will be explored below and in more detail in chapters 6, 13, and 15. One of the most important is the trade-off between immediate productivity and preparation for the future (Bock 2002a). When children invest time acquiring new skills, as opposed to practicing well-learned skills, they are *not* producing food and other resources or producing at a lower level (Bock 2002a). This deficit must be compensated for by other individuals (Kaplan 1994). In essence, parents or others must finance the development of children's competencies. In different ecological contexts, people have responded to this in many different ways, including biparental care or *allocare* and other forms of cooperative parenting (Hrdy 2009).

Examples of this trade-off can be seen in our Botswana studies. An activity we called “play pounding” was one of the most common activities of girls under 10 years old. This consisted of pretending to process grain, usually using sticks and sand as stand-ins for the real things. We found that girls peaked at the amount of time per day spent at this activity at about 8 years old, after which age they spent increasing amounts of time per day at actually processing grain. Our supposition is that the play-pounding activity helped girls acquire the skills necessary to be a successful grain processor, and at about age 8 they were ready to move into working with the actual tools and grain. Prior to that age, parents actively discouraged children from using the pounding material and grain to avoid loss or damage. In this example, we see a trade-off between productivity and skill acquisition. When girls are acquiring the skills, they cannot be productive, but as they become more skillful, they are able to increase their productivity (Bock 2002a; see also chapter 6).

Since most families rely on processing grain and mongongo nuts to meet their nutritional requirements, there is substantial incentive to efficiently allocate labor in the household. At first glance, it seems that the best thing to do is to have younger girls process grain so that women can process mongongo nuts. However, doing so means that young girls will never get the experience necessary to become a competent mongongo nut processor. Parents and other household decision-makers face a trade-off—use girls' labor now and have more resources available immediately, or have girls spend some of their time learning mongongo nut processing so that there will be a future benefit. By pursuing the latter course, productivity in the present is sacrificed for increased productivity in the

future. Of course, reality is more complex than this example, which focuses on only two of the many possible activities that girls participate in. These trade-offs exist in multiple dimensions across many activities and many individuals. Further complicating the issue is that parents and children do not necessarily have the same interests. Immediate productivity gives parents and households resources to use in the present, while acquiring skills provides the child with resources in the future which may or may not come to benefit the parents and household.

In a continuum from collectivism to individualism, as a culture emphasizes individual attainment more, we can expect this conflict to become more apparent (Caldwell 2004). An example of this comes from our Botswana studies. First-born girls were far more likely to be spending their time in household chores than attending school. The more older sisters and other girls living in a household, the more likely that the youngest girls would attend school (Bock 2002b). While older girls might have benefited just as much from schooling as the younger girls, their own formal education was traded-off, or sacrificed, because their parents wanted the proceeds of their labor. These proceeds were used to finance further reproduction by the parents (Kramer 2005) and the formal education of younger girls in the household. One can imagine the parents receiving benefits in the future from having some children with formal education. Rather than parents acting to make sure that each child's future is the best for that particular child, the pattern of investment and time allocation is based on the parents' interests. This pattern is certainly not unique—19th-century American children were involved in forms of wage labor highly detrimental to their own interests, as are many children in the developing world today. And it is common for older children in immigrant families in the United States to work in the family business or at wage labor so that their younger siblings can acquire an education. As seen in the examples above, these trade-offs can affect one gender preferentially depending on social, cultural, and ecological conditions (see chapter 12 for an extensive review).

These trade-offs have been seen in other cultures as well. Kaplan and colleagues (2000) found that among the Ache foragers of Paraguay, the Machiguenga of Peru, and Hiwi of Venezuela (forager/horticulturists) males did not begin to meet their own nutritional needs until their late teens to mid-20s. For females, this period of dependence was even longer because productivity was traded-off for child care. Among the Hadza of

Tanzania, who are foragers, this period of dependence is shorter because their subsistence ecology offers more opportunity for high productivity among females. And through the collection of easy to obtain and process baobab fruits, children can make a substantial contribution to their own provisioning (Blurton-Jones and Marlowe 2002). Kramer found that among Yucatec Maya, who are horticulturists, this period of dependence is shorter for both genders because, in their subsistence system, people can be highly productive at younger ages. The clear implication is that the types of resources people use in a specific time and place affect the duration of skill acquisition. Where resources are easy to extract, either because they are highly abundant or because a relatively low level of skill is necessary, children become competent at earlier ages and there is a shorter period of provisioning. Conversely, when resources are difficult to extract because of scarcity or a hazardous environment, or because high levels of skill are necessary, the period of learning is much longer, requiring consequently a longer period of provisioning. In industrial societies, it seems that this period of dependence can be quite long because the duration of skill acquisition is so extended (see chapter 18). In fact, borrowing against future returns is the most common form of financing a college education in the United States (Chapman 2006).

Cultural Transmission

Culture is often cited as a distinguishing characteristic of humans (Boyd and Richerson 2005), but the term "culture" is nebulously defined and there is far from universal agreement on what constitutes culture. Children are variously described as already culturally competent and active *agents*, as sponges soaking up the cultural information necessary to be competent adults, or as vessels into which culture is poured during *child-rearing*. This seeming paradox actually makes sense when we think of children as both "being" and "becoming." Even with their small body size and developing cognition, children must navigate their current cultural, social, and ecological contexts, and we should expect natural selection to have acted to shape brains and behavior to be successful at learning how to navigate successfully. At the same time, they are acquiring information that may not be of current use but will be important when they reach adult physical and cognitive capacity.

It is difficult to conceive of nonhuman primates as having culture, especially when culture includes attributes like meaning, norms, and values. However, we can gain some insight into the selective history of our adaptation of culture acquisition from the spread and maintenance of "traditions" among nonhuman primates. Perhaps the most widely known example is that of fruit washing among Japanese macaques (Nakamichi et al. 1998). In one troop of these animals, one individual began "washing" fruit prior to eating it, and over a period of time, other individuals began to adopt this behavior. Washing gradually became established among all of the monkeys in this particular group and was transmitted between generations. Although there is no obvious function to the washing behavior, it became part of the behavioral repertoire of that group of individuals and survived beyond the lifetime of the individual who initiated the practice. Similar kinds of practices have been documented among capuchin monkeys. Researchers have noted the emergence and horizontal (within a generation) and vertical (between generations) transmission of these behaviors (Perry 2008). For instance, capuchins engage in a behavior called "eyeball poking." A pair of individuals sit facing one another while one pushes its fingers into the eye sockets of the other individual. There is no obvious physical function to this activity, yet in one group of capuchins it became common. It may be that this is a way of establishing trust within a social relationship, and for that reason it became a regular part of that groups' behaviors (Perry 2008). Many other traditions have been documented among our closer relatives, the chimpanzees, including using specific materials for tools and employing differing techniques for resource extraction and processing (McGrew 1998). These examples illuminate the possibility that the selective history that shaped humans' adaptation to culture predates the emergence of the hominids. It may be that as humans became adapted to increasingly complex social systems and ecological niches, what we view as culture expanded from the kinds of traditions seen in nonhuman primates to include the elements common to human cultures today.

Culturally transmitted information, whether it consists of traditions, roles, values, and/or meaning, is a very effective way of communicating about what "works" in specific social and ecological contexts (Boyd and Richerson 2005). As our ancestors adapted to more complex social and ecological conditions, the amount of information needed to live contin-

ued to grow. We can imagine that the elements of information stored in a specific culture built up over a long period of time. At some point, the benefits of storing this information outside the brain and developing the necessary cognitive mechanisms to use and transmit this information among individuals outweighed the costs. Transmitting information this way is especially effective in stable environments, where current social and ecological conditions remain similar across generations. It may be much more effective to develop specific strategies for storing and transmitting information than letting each new learner flounder around with trial and error. Trial and error is an especially costly form of learning, especially in complex contexts where there is much information to acquire. On the other hand, if social and ecological conditions are in flux, the cost of relying on culturally transmitted information may be higher than the cost of trial and error. The stability of a specific environment (social and physical) should be a major influence on the mix of information obtained firsthand through trial and error and information obtained through cultural transmission (Bock 1999). In very unstable environments (see chapters 17 and 18), information obtained through cultural transmission between generations may not be useful, and since people are having to discover many new coping strategies in unprecedented environmental conditions, horizontal transmission becomes much more important. Since our ancestors evolved in environments marked by periods of environmental instability (Potts 1998), humans have the capacity to effectively respond to both stability and instability by drawing on cultural information or developing new information that can be transmitted to other individuals.

Learning in Context

The set of characteristics that comprise the human capacity to learn about and navigate social, cultural, and ecological contexts is the result of natural selection in our ancestors. Our physical maturation and cognitive development are interactively responsive to social, cultural, and ecological influences. This interaction has consistent effects on the pace of skill acquisition and learning. The environment simultaneously shapes the pattern of learning and provides the opportunities to apply that learning for either immediate or delayed benefits. The form and patterning of childhood are the direct result of that shaping, and as such, childhood

and learning are inextricably linked. Rather than establishing a set of rigid universal characteristics of learning, our selective history has led to learning in childhood that is broadly patterned but highly responsive to children's environments.

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CHAPTER THREE

THE CROSS-CULTURAL STUDY OF CHILDREN'S LEARNING AND SOCIALIZATION: A SHORT HISTORY

Robert L. Munroe and Mary Gauvain

[T]he habit of comparison leads to generalization.

—Charles Darwin, *The Voyage of the Beagle*

There are great sources of error in the comparative method.

—William James, *The Principles of Psychology*

In the epigraphs above, two eminent thinkers were positing opposite views about the scientific value of comparison. One saw the promise, the other the pitfalls—and both men, we believe, were right. Darwin's point was conceptual: There is power, even scientific necessity, in investigating similarities and differences, in comparing *to* and comparing *with*. James, in the quoted passage, was concerned about methodology, and about the consequent difficulty of interpretation if several dimensions of comparison were treated at once. This was decidedly true of the early 20th-century investigators who studied children in non-Western settings, for they not only were trying to trace the trajectory from child to adult but were doing so in cultural contexts markedly different from their own. It did not diminish their hope that comparative evidence would support or rebut generalizations that were being based on the study of Western peoples alone. Ultimately, though, as the century went on and a variety of methodological controls was introduced, the grand goal of understanding socialization¹ (or enculturation) was seen for the immense undertaking that it was, and aspirations

became more modest. In the present chapter, we will try to trace the main projects and traditions in this important subdiscipline.²

At the outset, we need to make a distinction between child training practices and the processes of learning. The two are obviously intertwined, but for a long time, cross-cultural researchers tended to assume that the acquisition of culture was an unproblematic matter of detecting and describing the rearing of children, and that the outcomes were ultimately adults of the same makeup as those who were carrying out the child training. This did not mean that those who raised children were believed to understand the full consequences of their actions—to the contrary, in many cases—but it did indicate, as we shall see, that early investigators were making assumptions about the nature of children and childhood that only later were brought under scrutiny.

Pioneers: Margaret Mead and Bronislaw Malinowski

Fragmentary information about childhood could often be found in the cultural descriptions of 19th- and early 20th-century ethnographers, but seldom was there any focus on the pre-adult life phases. Then, during the 1920s, two influential anthropologists took issue with certain ambitious statements about human development that were common among social scientists. In Polynesia, Margaret Mead (1928/1973) failed to find the *Sturm und Drang* that American psychologist G. Stanley Hall (1904) had claimed was typical of adolescent life. She located the Samoan adolescent girl's innocuous, little-troubled existence in an atmosphere of diffuse affective life, which was rooted, she thought, in the early experience of repeated exposure to many caretakers both in the extended household and beyond. Probably stretching a point, Mead declared that "a baby whose mother has gone inland to work on the plantation is passed from hand to hand for the length of the village" (23). (One of the present authors participated in a much later study of infants in Mead's Samoan village and saw no such behavior [Munroe and Munroe 1984].) Around the same time, Bronislaw Malinowski (1927/1955, 1929) argued that the Oedipal conflict, which was central to Freud's theorizing about the "natural" course of human development, was a culture-bound phenomenon resting not on father-son sexual conflict but on a family structure in which the father was the disciplinarian, or authority figure. Looking to

his matrilineal Trobrianders of New Guinea, Malinowski concluded that there, the authority of the mother's brother—not that of the father, who was without power over his son—was what generated a boy's hostility. Unfortunately for Malinowski's hypothesis, the Trobriander boy did not begin to come under his uncle's authority until about age six, and by this time, according to orthodox Freudian theory, the Oedipal conflict would have been resolved (Hall and Lindzey 1957). Yet, in attacking the Oedipal construct, Malinowski may have identified a particularly weak point in Freudian thought (Sears 1951), and in Mead's case, the idea of general adolescent stress in America has not held up well against the long-term empirical evidence (Steinberg 1996). As LeVine (2007) points out, these studies launched anthropology as the cultural critic of developmental ideas introduced by psychologists and based largely on Western samples.

In questioning Western-based theory, Mead and Malinowski were early formulators of an anthropological perspective concerning the enormous plasticity of human beings. Their work also helped lay to rest the 19th-century parallelisms that had been drawn among "primitive" peoples, children, the mentally ill, and even animals, views that reflected the Social Darwinism of the time. As late as 1939, however, Irving Hallowell (1939/1955) found it necessary to refute the argument that "aboriginal peoples that still survived represented arrested stages of cultural development that the more advanced races had passed through" (15). Bateson and Mead (1942; Mead 1930/1973, 1932; Mead and Macgregor 1951), in trips to New Guinea and Indonesia, went on to consider other generalizations about human development, and these efforts always resulted in one conclusion about the causes of human behavior: "It's not human nature, but . . . our culture" (as phrased by Singer 1961, 17). Child-rearing was given a favored place in this scheme by Mead and others, but only in the sense that it was the initial phase of a persisting, self-replicating system that underlies human personality and behavior, including their organization and motive forces. Reflecting in later years on her ideas, Mead (1930/1973) conceded, "We knew very little—in 1930—about differences in upbringing among different peoples; we knew still less about the importance of character formation . . . in terms of the precise learning experiences of the infant and the young child" (6). The assessment is accurate, but it was her own and Malinowski's contributions that were the first to depict in rich ethnographic detail the settings and experiences of children in non-Western cultures.

Early Descriptive Approaches

As of the 1930s, thorough accounts of children in non-Western societies started to appear with some regularity (e.g., Dennis 1940; Firth 1936; Fortes 1938/1970; Hogbin 1931, 1943, 1946; Leighton and Kluckhohn 1947; Little 1951; Raum 1940; Richards 1932, 1956; Wedgwood 1938; J. Whiting 1941). These ethnographies represented a broad range of cultural settings geographically and in terms of social structure and community size. For the most part, the "theory-testing" mode of Mead and Malinowski was eschewed; the focus was instead on detailed descriptions of socialization practices and child behavior. These descriptions made clear the diversity of child-rearing and children's experiences around the world. From a society in sub-Saharan Africa, we give an example that implicitly illustrates the difference between Western child-rearing and the situation in a typical rural village:

Nothing in the universe of adult behaviour is hidden from [Tallensi] children or barred to them. They are actively and responsibly part of the social structure, of the economic system, the ritual and ideological system. . . . Hence the children need not be coerced to take a share in economic and social activities. They are eager to do so. (Fortes 1938/1970, 18-19).

Of the many reports, some were full-fledged ethnographies of childhood; some constituted one element in a general ethnographic study; still others took up specific aspects of child experience such as task responsibilities, play activities, status and behavioral changes with age, "bush" schooling, and initiation ceremonies. Little attempt was made to delineate the learning process itself, aside from the assumption that child training practices led to successful outcomes. However, there were suggestions of explicit efforts in some cultures to convey important lessons to children, such as accounts of putting young adolescent boys in settings with men so that they would learn behaviors expected of them (e.g., Hogbin 1970). Distinctively, these researchers were working prior to the very great changes soon introduced almost everywhere by formal schooling and other forces of modernization, including the prolonged absence of many adult males due to extensive migratory wage labor. The early work also helped to establish socialization, education, and the life cycle as standard topics

for ethnography, and these continued to appear throughout the remainder of the 20th century (for coverage of socialization research through the 1960s, see Draper 1974 and Williams 1972; for case studies of education and the life cycle, see volumes in the Holt, Rinehart, and Winston series edited by George Spindler and Louise Spindler, e.g., Huntington and Hostetler 1971; Williams 1969).

One exception to the generally atheoretical orientation of the early descriptive approaches was the work of neo-Freudian Abram Kardiner (1939, 1945). In association with anthropologist Ralph Linton, Kardiner produced a series of ethnographic vignettes—for example, on the Native American Comanche and the Marquesans, a Polynesian island culture—and interpreted the varying sets of child training practices as generating *basic personality structures*, which were then said to be projected, as "secondary institutions" (meaning outside the person), onto folklore, magico-religious observances, and value systems. Anthropologist Cora Du Bois participated in Kardiner and Linton's seminars at Columbia University, absorbed the Kardinerian model, and then applied it in her Indonesian fieldwork. In a landmark study (Du Bois 1944), she portrayed the level of basic-need satisfaction given to Alorese children, even neonates, as very low and irregular, and she related this to a widespread pattern of lengthy temper tantrums and rages among 2- to 5-year-olds. Indeed, in Alorese folklore, a common motif was, fittingly, frustration engendered by the parents. The neglect and inconsistency in children's treatment led, according to Du Bois, to an adult personality rife with suspicion, mistrust, and deception. Du Bois brought to her analysis extensive life-history interviews, Rorschach protocols, and children's drawings, which represented a broadening of methods beyond observational techniques.

Holocultural or Whole-World Research

In the early 1950s, John W. M. Whiting and colleague Irvin L. Child (1953) made a new and bold attempt to investigate the long-term effects on personality of early experiences, especially those revolving around the Freudian oral, anal, and genito-phallic systems. This approach helped reignite a focus on theory testing. Others (e.g., Erikson 1950; Spiro 1958) were also basing their research on Freud's psychosexual stages, but what made Whiting and Child's study unique was its use of an archived ethnographic

survey, the Human Relations Area Files (then the Cross-Cultural Survey; Ember and Ember 2001a; Murdock et al. 2000; see also chapter 7, this volume). Whiting and Child compiled and analyzed the (usually meager) child-rearing information available from a world sample of 75 societies, each culture being considered as a unit. This innovative technique, termed *holocultural*, helped prompt a small industry of similarly oriented "childhood determinism" research that continues today (Ember and Ember 2001b), though most of these studies were carried out by about 1975. The dependent variables ranged across aggression (Allen 1972), drunkenness (Bacon et al. 1965), explanations for illness (Whiting and Child 1953), types of games (Roberts and Sutton-Smith 1962), and initiation ceremonies (Brown 1963; Whiting, Kluckhohn, and Anthony 1958).

In a review of this research genre, Levinson and Malone (1980, 189) concluded, "Many of the holocultural studies of . . . the effects of child rearing practices on adult personality . . . are not direct tests of the hypotheses they claim to test [emphasis in original]. . . . The [hypothesized] cause and effect are measured, the mediating variable [e.g., fixation] is not." Still, successful examples of this type of research can be given. In research on games, John Roberts and colleagues (Roberts, Arth, and Bush 1959; Roberts and Sutton-Smith 1962) found that socially complex societies (high political integration, social stratification) practiced frequent games of strategy. Roberts reasoned that societies with games of strategy would emphasize obedience training in their socialization, and this proved correct. Such emphasis, he thought, probably contributed to the learning of command, management, and the giving and taking of orders necessary to the functioning of any complex society. Another strong finding in relation to socialization was that societies with frequent games of physical skill emphasized achievement training for children. Then Roberts, in a significant extension of these results, showed that (a) on a worldwide basis, girls were given more consistent obedience training, and boys higher levels of achievement training; that (b) "these differences in socialization correspond to the general differences between male and female roles over the world" (Roberts and Sutton-Smith 1962); and that (c) in a sample ($N = 1900$) of American children, game preferences followed the gendered pattern of cross-cultural results, with girls favoring games of strategy (e.g., checkers) and boys favoring games of physical skill (e.g., bowling).

Holocultural inquiry was most successful when it avoided trying to specify adult outcomes and simply surveyed socialization practices and childhood experiences in the large.³ Weisner and Gallimore (1977), tabulating holocultural ratings for socialization (Barry and Paxson 1971) on more than 150 small-scale societies, found that care of infants exclusively by the mother occurred in just 3 percent of the cases, dropping to zero for older children—a finding directly contradictory to the Western assumption that exclusive care by the biological mother is essential. Although the specific consequences of these varying patterns of child care are not known,⁴ it seems clear that children can be successfully raised via a multiplicity of caretaking options in small-scale as well as complex societies such as India (Seymour 2004).

Holocultural surveys have also established that food accumulators (agriculturalists with heavy stock-raising) are much more likely to set tasks for young children than are food collectors (hunter-gatherers, fishers) (Barry, Bacon, and Child 1967; Barry, Child, and Bacon 1959). These tasks, including housekeeping chores, errands, food preparation, subsistence activities, and care of young siblings, typically begin at about age 3 and grow thereafter in frequency, intensity, and complexity (Rogoff et al. 1975). The lower level of tasks among hunter-gatherer children is probably due to their smaller store of material goods (thus minimal maintenance activities and related chores) and to subsistence techniques that require near-adult strength and endurance. The difference in task loads between children in the two types of societies implies varying interests and levels of skill, but these have not been looked into. Nor is it known whether adults in food-accumulating societies are directly training children in anticipation of psychological styles and economic patterns (Barry et al. 1959), or whether, on the basis of current need, they are inducting children into the economy at an early age (Whiting and Whiting 1971).

The Whitings' Comparative Field Projects

John Whiting's experience in trying to construct valid measures from the unstandardized reportage in the ethnographic archive left him convinced that new fieldwork, directed toward specific goals and organized around the study of human development, was appropriate for his next large research

project. Together with colleagues Child and Lambert, he launched, in the mid-1950s, the Six Cultures Study of Socialization (SCS), the largest comparative field study of child-rearing and child behavior that had been undertaken in anthropology. With six field teams spread over four continents and a clearinghouse at Harvard University led by Beatrice Whiting, the project eventually was to publish a methodological guide for developmental inquiry (Whiting, Child, and Lambert 1966), monographs on each culture with detailed descriptions of socialization practices (B. Whiting 1963), an analysis of standardized mother interviews (Minturn and Lambert 1964), and a volume on the relations between sociocultural contexts and children's behavior in daily settings (Whiting and Whiting 1975). A later work by Beatrice Whiting and Carolyn Edwards, *Children of Different Worlds* (1988), incorporated data from the SCS and added comparable materials from seven additional culture groups.

The SCS and related research can be discussed in terms of theoretical orientation, methodology, and a few of the main findings. The original plan, as described in the Field Guide (Whiting et al. 1966), was to test hypotheses derived from both psychoanalytic and behaviorist psychology, and to use child tests and interviews,⁵ but these techniques proved difficult to apply and were abandoned, as were the accompanying hypotheses. But the project led the way in illuminating the broader contexts (techno-economic, social-organizational) within which development occurs, and concomitantly, the effects of those contexts on children's social behavior. The Whitings' emphasis on documenting the varied environments in which culture is learned has been taken up broadly in developmental psychology and can be seen in such concepts as the developmental niche (Super and Harkness 1986), ecocultural theory (Weisner 1997), and bioecocultural models (Worthman in press).

Methodologically, the repeated observational protocols gathered on the 3- to 11-year-old children proved the most significant feature of the SCS (Whiting and Whiting 1975). These running narratives, which were transcribed by the anthropologists as they followed the children ($n = 24$ per community) in their daily activities, generated a set of 12 "summary act categories" (e.g., seeking help, reprimanding, assaulting) that occurred commonly but with differential frequency across the communities. Offering quantitative comparability both within and among cultures, the method, or a kindred technique, was taken up by many

others (Borgerhoff, Mulder, and Caro 1985; Ember 1973; Harkness and Super 1985; Hewlett 1991; LeVine et al. 1994; Nerlove et al. 1974; Rogoff 1981a; Seymour 1983; Weisner 1979). One drawback of this approach, an absence of interobserver reliability, was overcome with "spot observations" (Munroe and Munroe 1971; Rogoff 1978), which focus on the recording of a targeted individual's activity at the initial moment of observer-participant contact.⁶

The great majority of the culture groups studied via Whiting-style observations were subsistence-level agricultural communities. Unlike both urban-industrial peoples and technologically simple foragers, these mid-level societies tend to assign their children numerous tasks, all the way from passive sibling care to intensive subsistence activities (Johnson 1980). Generalizing about social styles among children in such societies, Beatrice Whiting (1980) argued that "the habits of interpersonal behavior that one learns and practices in the most frequented settings may be overlearned and may generalize [transfer] to other settings" (103). In a four-culture study involving 3- to 9-year-old children, Ruth Munroe and colleagues (Munroe, Munroe, and Shimmin 1984) found a pattern supportive of Whiting's statement. Those children who worked frequently, even when not engaged in tasks, were involved in a pattern of interaction that itself seemed worklike. They made responsible suggestions and reprimanded others who broke the rules: "The picture [was] one of businesslike, purposeful social behavior" (375). But among those who did relatively little or no work, "there was almost a sense of 'fooling around,' of playfulness" (375). These children engaged in frequent horseplay and attention-seeking behavior, and they appeared to treat interaction as an end in itself. Yet even the children who worked at high levels, approaching half of their daylight hours, found time for leisure activities. As Lancy (2007) has indicated, "Children are observed playing in every society studied by anthropologists" (274). This proposition is consistent with Whiting and Edwards's characterization of their naturalistic behavioral observations on "yard children": "healthy 4- and 5-year-olds in all cultures are always on the move. They are characterized by a high level of activity and by an intense interest in the physical and social environments" (1988, 203).

Building further on the SCS, Whiting and Edwards (1988) noted a widespread same-sex preference in children's play. Developmentalist Eleanor Maccoby (1998) described the tendency as a "strong bias in every

society for children to be drawn toward members of their own sex" (29). Such a pervasive pattern would obviously afford opportunities for the learning of appropriate sex-role behaviors and attitudes (see also chapter 12, this volume). How much, if any, of this regularity might be located in biologically predisposed responses was even-handedly discussed but not answered by these researchers (see also Draper 1975).

Aware that the SCS, for all its influence, had been short on both the overall number of culture groups and the within-group sample sizes, the Whitings imaginatively tried to greatly expand their project (J. Whiting 1970). In the event, a more modest effort led to the establishment of research headquarters in Kenya, another briefly in Nigeria. Basic data were collected on some 13 communities and reported on in numerous individual studies.⁷ While much was still to learn, the Whitings' explicitly comparative approach set the standard for the following decades of cross-cultural fieldwork in child study.

Childhood among Hunter-Gatherers: Lessons from Human Evolution?

Realizing that viable hunter-gatherer societies would not be sequestered from modernizing forces for much longer, anthropologists began in the late 1960s to study the few remaining groups. Foraging groups were seen as important for more than their scarcity: Their subsistence style had characterized the adaptive life pattern of every human society until the emergence of agriculture about 10,000 years ago, and they therefore promised insight into long-term evolutionary processes. The hunter-gatherer research teams were the first to bring neo-Darwinian ideas into cultural anthropology (Lee and DeVore 1968), and they tested the degree to which an understanding of human behavior was enhanced by concepts like "prepared responses," "reproductive success," and "fitness enhancing strategies" (Draper and Harpending 1982; Hawkes, O'Connell, and Blurton-Jones 1997; Konner 1977b). Theorists also tried to probe the applicability of evolutionary paradigms to children's learning (Hewlett and Cavalli-Sforza 1986; LeVine 1982). But Darwinian ideas were seen by most anthropologists as threatening the central tenet that culture should be studied autonomously, without resort to biological concepts (Caton 1990; Sahlins 1976). For the greater part, this antireductionist paradigm

held sway. The evolutionary perspective, however, continues to make progress, taking seriously the critiques leveled at its claims (see chapter 2, this volume). Human behavioral ecology has become a specialized sub-field of anthropology with growing importance in child study. We now turn to that body of work.

The small number of intensively studied foragers, about 10 culture groups altogether, have displayed some notable variability in their child socialization practices, but they can nonetheless be said to exhibit a distinctive style. Breastfeeding by women besides the child's mother occurs among many hunter-gatherers, but such a practice is seldom found in other types of societies (Hewlett and Lamb 2005; Tronick, Morelli, and Winn 1987). And almost universally, the unweaned hunter-gatherer child receives a higher level of indulgent care—whether from mothers or others—than is to be found elsewhere (Hewlett and Lamb 2005). Also, hunter-gatherer fathers tend to participate in infant care somewhat more frequently than do fathers in either urban-industrial or agricultural groups (Fouts 2008; Katz and Konner 1981), though this generalization requires careful qualification. For one specific hunter-gatherer society, the Central African Aka, Hewlett (1992) found that fathers were within reaching distance of their infants 50 percent of the time, and they held their babies "at least five times more than fathers in [all] other human populations" (153). Hewlett interpreted the finding as reflective not of "parental effort" per se but as part of a pattern in which Aka fathers and mothers help each other in a host of different contexts. Aside from the Aka, Konner's (1977a) statement about fathers continues to hold: "In all known human cultures, males exhibit an extremely minor role in relation to small children and especially to infants, and human hunter-gatherers may be included in this generalization" (95–96). It is worth noting, too, that even in the Aka infant case, the level of the father's caretaking does not match that of the mother.

From a Western perspective, a pattern of care characterized by extensive physical contact and proximity might suggest a notable degree of play with infants. This would be especially true of fathers in the urban-industrial world; as Lamb (1987) phrased it, "[North American] fathers are behaviorally defined as playmates" (10). But hunter-gatherer fathers, and other adult caretakers, do little or no playing with children (Fouts 2008; Lancy 2009, personal communication). Altogether, the style of

hunter-gatherer child-rearing is best seen as one of physical protection, unhurried pace, and lack of urgency in "training." There seems to be little emphasis on "facilitating or speeding up skills" (Hewlett and Lamb 2005, 415). This generalization is consistent with what has been found on the basis of holocultural research, wherein food collectors (hunter-gatherers) do not involve their children in work as frequently as do food accumulators. Importantly also, the hunter-gatherer research teams have documented their findings via the same systematic observational techniques as were introduced by the Whiting teams during the Six Cultures Study of Socialization (above).

The anthropologists and other social scientists undertaking intensive research with these hunter-gatherer peoples over the final decades of the 20th century accumulated an inventory of materials that will permanently enrich the ethnographic record. They continue to work with these foraging peoples who, though increasingly encroached upon, often retain central patterns that illuminate a style of adaptation which was once worldwide in its distribution.

Cognitive Studies

Beginning in the 1960s, inspired both by the "cognitive revolution" in psychology and by Jean Piaget's (1970) description of universal stages of intellectual development,⁸ behavioral scientists began to look carefully at children's cognitive performance in cross-cultural settings (Cole et al. 1971; Cole and Scribner 1974; Dasen 1977; Dasen et al. 1978; Greenfield 1966, 1974; Irwin and McLaughlin 1970; Price-Williams 1962). Some of this research was motivated by the need for deeper understanding of learning in the hope that it could help explain the increasing and increasingly worrisome issue of school failure in Western and Western-type schools (Gay and Cole 1967; Serpell 1979; Stevenson et al. 1978; Wagner 1978). Up to that time, as we have seen, most inquiry had focused on children's behavior (play, skills, social interaction, and work contribution) and their socioemotional development. It was quickly found that children in traditional societies did not perform as well as those in urban-industrial environments. The differences appeared on a wide variety of tests, including Piagetian "stage" attainment, logical reasoning, level of moral reasoning, memory, and even on nonverbal, hypothetically culture-free tests (for

a discussion of these results, see Dasen 1974; Edwards 1981; Goodnow 1976; Lloyd 1972; Scribner 1979; Wagner 1981).

The many reasons advanced for the poorer performance included unfamiliarity with test materials, emphasis on rote learning, low tolerance of questioning of authority figures (i.e., adults), inferior educational levels, inexperience with the forms of discourse and modes of representation associated with formal schooling, nonliteracy, and different understandings of the meaning of an activity, how to solve a particular problem, and even what a good solution entails (Rogoff, Gauvain, and Ellis 1984). Attempts to compensate or control for the discrepancies often involved a complex series of adjustments (types of tests and methods of testing) that, in the end, did not abolish many differences in performance (e.g., Cole et al. 1971; Lancy 1983). As cultural study of learning and cognition advanced, a comparative approach seemed, for many, far less interesting than delving deeper into the specific cognitive competencies expressed in particular cultural contexts. This research not only resulted in better descriptions and appreciation of human cognition in its various forms but also helped lead anthropologists and psychologists alike to the realization that cognition itself is a contextualized process.

Traditional peoples were observed to possess unusual cognitive skills and to use elegant reasoning (Gladwin 1970; Hutchins 1983; Lave 1977; Scribner 1976). As well, children in non-Western settings were found to have impressive expertise reflective of their everyday experiences, such as relational and spatial knowledge, classification systems, number and measurement concepts, and pattern representation, and their expertise sometimes surpassed similar behaviors observed among children in Western communities (e.g., see Greenfield and Childs 1977; Kelly 1977; Saxe 1981; Serpell 1979). Among both Western and traditional samples, a common theme emerged: cognitive performance is better on the activities and skills that are practiced and valued in a culture, and the more an assessment or test deviates from the familiar context, the poorer is the performance. This observation introduced new ways of thinking about learning and cognition, specifically as a highly contextualized or situated set of practices. But now an age-old question in psychology about transfer, or comparable performance on similar tasks, became paramount. That is, although these everyday cognition studies, as they were called, demonstrated that children both in traditional and Western societies

could display high levels of functioning, such competence was not easily transferrable to classroom performance or to Western-style testing situations. For instance, children in Brazil who sell candy and fruit on the streets engage in complicated mathematical calculations while trading their wares, yet when these same children are asked to perform similar calculations in a schoollike form, they do quite poorly (Carragher, Carragher, and Schliemann 1985). Findings such as these led to closer examination of how formal schooling contributes to cognitive development (Rogoff 1981b), and whether schooling itself is a specialized form of cognitive training with its own benefits and limitations (Lancy 1983; Lave 1988; Saxe 1991; Serpell 1993).

Despite extensive research, the exact relation between cultural values and practices and children's learning and cognitive development remains unknown. As stated, not all cultural variation in cognitive performance is explained by differences in societal institutions such as schooling. Even when schooling is taken into account, the cognitive consequences of this experience vary significantly across cultures (Stevenson and Stigler 1992). The original aim to discover universal features of cognitive development has yet to be achieved, and whether this aim is valid continues to be debated. As Michael Cole (1989) wrote: "an approach that begins its analysis with everyday human practices in their cultural-historical contexts experiences great difficulty in arriving at global characteristics of our mental lives that generalize broadly across contexts" (329). Yet this research, for all its limitations, was the first tradition to try to specify some of the processes of learning that define and support cultural socialization.

The Learning of Language: Acquisition and Socialization

Noam Chomsky (1957, 1959, 1965) has been charged both with accelerating (Bowerman 1981) and retarding (Mohanty and Perregaux 1997) the cross-cultural study of language acquisition in children. Whichever the case, his fundamental claims—too complex to be more than limned here—were that the human brain contains an innate ability, or language instinct, entailing the specific knowledge needed to learn any language; that children are born with this capability; and that a universal grammar underlies the vast differences in specific languages, meaning that "all

languages are basically the same, though they differ in many superficial characteristics" (Macaulay 2006, 54). In the 1960s, early cross-linguistic data indicated, as Chomsky had predicted, that all "normal" children begin to speak before the age of 2. Children seemed also to acquire language in patterned (rule-governed) ways, even to spontaneously produce comprehensible but unusual utterances they wouldn't have heard before (e.g., in English, "Him have glasses on him eyeball"). With the emphasis on commonalities across languages, Chomsky's ideas echo Piaget's views on the universality of mental functions.

For Chomsky, such regularities were supportive of his fundamental assumption that structures in the brain underlay the comprehension and production of all languages. Certain other expected regularities, however, failed to appear in some languages (Everett 2005), and a number of researchers—using inductively derived arguments—began to ask whether children's speech productions could be analyzed adequately using Chomsky's general ideas. The cross-cultural study of children's language thus began to change direction, heading into what may be called a post-Chomskyan era⁹ (Bowerman 1981). For a brief period, a "cognition-first" hypothesis was entertained. Prior to their ability to express something verbally, children could often convey understanding of a concept by nonlinguistic means. However, the proposition that cognitive growth preceded language development, and even was relatively independent of the acquisition of language, was a strong position that did not robustly withstand all critiques,¹⁰ and the empirical evidence was mixed. In some languages, the linguistic devices for encoding a given meaning were difficult and therefore slow to develop (e.g., expressing location by means of prepositions), and in others the development was more rapid (expressing location with suffixes), the difference being due to children's general propensity to attend to the ends of words (Slobin 1973). In these cases, one could perhaps see the primacy of a cognitive prerequisite. But then, in a Mayan (Central American) language, Tzeltal Maya, a highly specific set of verbs about location seemed to influence children's ideas about the kinds of spatial meanings those verbs could have, and here we had an apparent instance of the opposite, with the linguistic categories affecting cognition (Brown and Levinson 1993). Also, in a comparative study, Lucy and Gaskins (2001) showed that differences between English and Yucatec Maya in the use of plural and numeral classifiers—that is, in use of certain

linguistic categories—affected cognition beginning in middle childhood, long after children had mastered the rules of their language.

Because language differences as well as possible universals were now being explored, a major feature of the newer research was its close attention to language-specific patterns of development. What this meant in practice was that language-acquisition studies were looking at the varying sociocultural contexts of language learning, including the communicative practices that parents and others engaged in with young children (Blount 1981). Probably the most salient result of these studies, considered together, was the discovery of immense cultural variety: in rates of language acquisition, in children's agency in learning, in the degree to which more mature individuals "teach" language to young children, in the use (or non-use) of special baby talk or motherese, and in the explicit pressure applied to the learning of culturally appropriate usage (Schieffelin and Ochs 1986; Watson-Gegeo and Gegeo 1986). Moreover, realization of the centrality of language acquisition to all socialization meant that subsequent work on children's learning would require not only competent but also subtle language command by the researcher. What was now demonstrated, in other words, was a need to study both "socialization to use language" and "socialization through the use of language" (Schieffelin and Ochs 1986, 163)¹¹ (see also chapter 10, this volume).

Conclusion

We have seen that through much of the 20th century, there were considerable shifts of focus as a variety of interests in children's learning arose and then subsided. But there was also a pattern to the changes. Early on, in the 1920s, Margaret Mead and Bronislaw Malinowski asked questions concerning the validity of certain generalizations about children's development. This was followed by a flourishing period of careful descriptive work, without much regard to theoretical issues.¹² Then, beginning in the 1950s, a number of research cycles—holocultural inquiry, the Whitings' comparative projects, the hunter-gatherer studies, cognitive research programs, language-learning studies—all followed a common trajectory: After an initial phase in which principles or strong regularities were sought, and were sometimes found, each of these mini-traditions tended either to experience a downturn of interest or to find a different emphasis. Yet,

in the process of uncovering the complexities of their special problems, they consistently evoked a theoretically informed appreciation of the great cultural range of adaptive paths in childhood learning.

The Euro-American model of human development has been based on a program of so much depth and wealth of reportage that cross-cultural studies have almost necessarily played off some aspect of it.¹³ In effect, then, as noted in our introduction, every cross-cultural investigation of children's learning was, and is, comparative. When carried out well, such studies have served as indispensable complements to the developmentalist's emphasis on laboratory-based research. Naturalistic studies can also capture changes over time, as when recent research has involved revisits to field sites, and even decades-long dedication to the continuing study of culture groups (e.g., Gaskins 2003; Greenfield 2004; LeVine et al. 1994; Seymour 1999). Along with this have come new technologies providing researchers with a suite of methodological and measurement-related improvements in data collection.¹⁴

In both historical and contemporary cross-cultural research on children's learning and socialization, a tension exists between two competing views of children and childhood. Theory suggests that children are active and constructive agents in their own development. However, learning and socialization are often studied in ways that depict children as passive in these processes, as recipients of culture rather than as contributing and vital forces in both individual and cultural development. Rarely do we see the child's own perspective taken into account: for example, adults, principally caregivers, are asked about children (how they rear children, what they think and believe about them), and child interviews, when they occur, are often based on the scientist's views of what is important about childhood. A more child-centered approach would describe the full scope of children's learning and socialization. Important questions include what children choose to learn in the myriad socialization efforts presented to them by adults and cultural institutions, and how children themselves, both individually and with other children, shape these learning and socialization experiences to meet their own needs and goals and, thereby, change culture.

In ending, we may reconsider our epigraphs and the opposed statements of James and Darwin. We should always keep in mind James's claim about the likelihood of error when the classical experimental

method is not adopted. To remember this is to aid in the reduction of error, an accomplishment that has been slowly but increasingly achieved in comparative child research. On the other side, Darwin's "habit of comparison" has indeed led to generalizations, though many of them have been weak and others unfulfilled. Still, we continue to search for them, as the chapters in the present volume show. And it is probably not too much to hope that the cultural paths to successful human development, while various and plentiful, are not without limit and can ultimately be understood.

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Notes

1. The term *socialization* is used broadly here to refer to cultural transmissions during childhood, and thus, depending on context, may indicate either child training practices or cultural-acquisition processes.
2. A chapter that is historical should avoid the temptation to update the field by citing current literature. Although we have not been entirely successful in this regard, our 21st-century references amount to fewer than 10 percent of all citations.
3. Ronald Rohner (1975) showed a holocultural connection between what he termed "parental acceptance-rejection" and adult outcomes (degree of emotional stability and responsiveness). He and colleagues have since followed up with a large number of intracultural studies, and as he has summarized the results, early negative treatment tends to have long-lasting deleterious effects (Rohner 2004). For the opposite pole, parental acceptance, it is likely that positive treatment interacts with numerous processes, including many that occur after childhood, and acceptance is therefore associated with a variety of developmental outcomes.
4. How do the Indonesian Alorese, described above as neglectful and inconsistent in their treatment of children, fit into this picture? Retrospectively, LeVine (2007, 252) sees the ethnography of Du Bois (1944) as having a "judgmental cast" and as "psychiatrically inspired," but the fact is that Du Bois made detailed documentation of both the irregular care given Alorese children and their rages, which were "so consistent, so widespread, and of such long duration that they

were one of [her] first and most striking observations" (51). This apparently low level of care is quite different from the concept of multiple caretaking.

5. Interviews with the mothers about child-rearing practices provided a separate set of results which, though published (Minturn and Lambert 1964), were only tangentially integrated into subsequent analyses (Whiting and Whiting 1975).

6. But the specificity of the spot-observation technique, while facilitating adequate reliability and enabling a profile of activities and social behavior to be built up through repeated sampling, virtually disallows the measurement of ongoing sequences of behavior. Although the use of both approaches would be optimal, the needed resources in research time and effort have seldom been available.

7. For a list of the names of the primary Kenyan and American participants in the University of Nairobi's Child Development Research Unit, see John Whiting (1994, 40). Numerous doctoral dissertations by Americans came out of the program. Several Kenyan students received their master's degrees or doctorates from Harvard.

8. Piaget (1974) revised his position in later writing to acknowledge that the highest stage of his theory, that of "formal operations" (or the logic of scientific reasoning without the aid of any concrete content), might apply only to individuals in societies with complex systems of technology and science and even in these settings in particular contexts.

9. Chomsky himself began to insist on the importance of his universal grammar for "the investigation of the structure and predispositions of the human mind" (Lyons 1970, 91). In a trenchant critique, Macaulay (2006; see appendix) discusses how Chomsky has promulgated an ever evolving model for which "[t]here is no direct evidence" (199). This has led Chomsky, and those who continue to follow him, outside the realm of ordinary science, which depends on evidence to evaluate competing hypotheses.

10. Bowerman (1981) discussed the evidence and several of the problems associated with this position.

11. The surge of overseas applicants to anthropology departments in the United States in recent years will help meet this need for high competence in languages other than English.

12. As noted above in the text, after this period and since, there have always been some cultural anthropologists whose interests were never theoretical but whose monographs contributed to a growing ethnographic record on child life and learning.

13. This reliance has occurred despite the fact that the Western model has been changing over time—Freudian, behaviorist, social learning, cognitivist (LeVine 2007).

14. At the same time, the accelerating pace of change, particularly the near global adoption of new technologies, has posed some novel challenges to our understanding of how children are learning their cultures.

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CHAPTER FOUR
PARENTAL ETHNOTHEORIES
OF CHILDREN'S LEARNING

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Picture yourself, for a moment, as an American visitor who has the privilege of spending a morning in a pleasant middle-class Dutch home observing the normal routine of a mother and her 6-month-old baby. The mother made sure you got there by 8:30 to witness the morning bath, an opportunity for playful interaction with the baby. The baby has been dressed in cozy warm clothes, her hair brushed and styled with a tiny curlicue atop her head. The mother has given her the mid-morning bottle, then sung to her and played patty-cake for a few minutes before placing her in the playpen to entertain herself with a mobile while the mother attends to other things nearby. Now, about half an hour later, the baby is beginning to get fussy. The mother watches her for a minute, then offers a toy and turns away again. Soon, the baby again begins to fuss. "Seems bored and in need of attention," you think. But the mother looks at the baby sympathetically and in a soft voice says, "Oh, are you tired?" Without further ado, she picks up the baby, carries her upstairs, tucks her into her crib, and pulls down the shades. To your surprise, the baby fusses for a few more moments and then is quiet. The mother looks serene. "She needs plenty of sleep in order to grow," she explains. "When she doesn't have her nap or go to bed on time, we can always tell the difference—she's not so happy and playful."

This scenario—based on an actual observation—illustrates how parents' cultural beliefs, or "parental ethnotheories," are expressed in the daily lives of families. The Dutch mother we observed interpreted her child's behavior in the context of culturally shared beliefs about the nature of infants

(perhaps you, for your part, interpreted the baby's fussiness in an American cultural framework). In the Dutch case, some of these ethnotheories have been encoded as the "three R's" of good parenting, a set of beliefs passed down through generations of parents and formalized in guidelines by the national health care system (Super, Harkness, et al. 1996).

We discovered the "three R's" of Dutch child-rearing—*rust* (rest), *regelmaat* (regularity), and *reinheid* (cleanliness)—while doing research on how Dutch parents in a typical mid-sized town think about the development of their infants and children, and how these ideas guide the way they organize children's lives from day to day. We found that the "three R's" were powerfully represented in differences in the amount that babies slept, as well as how they were cared for while awake. At 6 months, the Dutch babies were sleeping more than a comparison group of American babies—a total of 15 hours per day versus 13 hours for the Americans. While awake at home, the Dutch babies were more often left to play quietly in their playpens or infant seats. A daily ride in the baby carriage provided time for the baby to look around at the passing scene or to doze peacefully. If the mother needed to go out for a time without the baby, she could leave it alone in bed for a short time, or time her outing with the baby's nap time and ask a neighbor to monitor with a "baby phone." Many families also had grandparents or grown siblings nearby who would be glad to baby-sit. The important thing was to protect the baby's regular schedule, especially time for sleeping.

Understanding parents' ethnotheories about their children is key to understanding the strategies parents use to help their children grow up to become successful members of their communities. In particular, parental ethnotheories about children as learners provide a foundation for the ways that parents think about children's environments for learning. These ideas, in turn, are related to parental ethnotheories of children's intelligence and personality, a topic that Harkness and Super first studied in a rural Kipsigis community of western Kenya in the 1970s (Harkness and Super 1992; Harkness, Super, et al. 2009; Super 1983). Mothers in this community identified six different groupings of words used to describe children. The first group referred to children's helpfulness and obedience, and it included phrases denoting a child who is respectful, polite, hospitable to visitors, and responsible. Particularly interesting in this group was the term *kaseit*, derived from the verb *kase*, to understand, describing a

child who understands quickly what needs to be done—and does it. The second group referred specifically to cognitive qualities, including *ng'om* (intelligent), *utat* (clever, or wise and unselfish), and *kwelat* (sharp, clever, sometimes devious). The word *ng'om* was used only in describing children and was typically used to describe intelligent behavior at home. As one mother said:

For a girl who is *ng'om*, after eating she sweeps the house because she knows it should be done. Then she washes dishes, looks for vegetables [in the garden], and takes good care of the baby. When you come home, you feel pleased and say: "This child is *ng'om*." Another girl may not even clean her own dishes, but just go out and play, leaving the baby to cry. For a boy, if he is *ng'om*, he will watch the cows, and take them to the river without being told. He knows to separate the calves from the cows and he will fix the thorn fence when it is broken. The other boy will let the cows into the maize field and will be found playing while they eat the maize.

As the Kokwet mothers explained further, the term *ng'om* could also be applied to academic intelligence. However, they stressed that being intelligent in school and at home were two different things: a child might do well in school despite often forgetting to be responsible and helpful at home. In summary, the Kokwet parents' concept of intelligence highlighted aspects of social competence, including responsibility and helpfulness, that have been documented throughout traditional cultures in sub-Saharan Africa (Serpell and Jere-Folotiya 2008), and that have tended to be overlooked in Western formal theories of children's intelligence (Nsamenang and Lamb 1993; Sternberg et al. 1981).

Parental Ethnotheories and the Developmental Niche

As illustrated in these examples, parental ethnotheories are cultural models that parents hold regarding children, families, and themselves as parents. The term *cultural model*, drawn from cognitive anthropology, indicates an organized set of ideas that are shared by members of a cultural group (D'Andrade and Strauss 1992; Quinn and Holland 1987). Like other cultural models related to the self, parental ethnotheories are often implicit,

taken-for-granted ideas about the "natural" or "right" way to think or act, and they have strong motivational properties for parents.

Parental ethnotheories are related to each other both across domains and in hierarchical fashion. The top of the hierarchy contains implicit, linked models of child, family, and parent; further down the hierarchy we find more specific and consciously held ideas about particular aspects of child development, parenting, and family life. These ideas inform parents' perceptions of their own children, as well as providing a basis for evaluating oneself and others as parents. Mediating the relationship between parents' cultural beliefs and behavior are other factors such as the child's own individual characteristics, competing cultural ideas, and situational factors such as parents' work and the composition of the family.

Parental ethnotheories are closely related to other aspects of the child's culturally constructed environment. This environment is not a random collection of unrelated social customs, aesthetic values, interpersonal interactions, physical situations, and beliefs about the world (Harkness and Super 2005). Rather, the various components of the child's environment together constitute a developmental niche (Super and Harkness 1986, 2002), which is conceptualized as three interactive subsystems. First, the physical and social settings provide places and people that constitute the child's learning environment. Second, customs and practices of care offer opportunities to acquire various competencies, from reading to self-regulation, from playing baseball to caring for an infant sibling. Finally, the psychology of the caretakers, particularly parents' ethnotheories of the child and of development, shape the choices that parents make in relation to the settings that their children inhabit and the competencies they acquire; parents' ethnotheories are also evident in parent-child interactions.

Parental Ethnotheories of Infants' Learning and Development

Cultural learning starts early in life, as the universal strands of the infant's developmental agenda are interwoven with the cultural agenda for normative development communicated by the infant's developmental niche (Super and Harkness 2009, see also chapter 12, this volume). A study of parental ethnotheories in five cultures (Harkness, Super, et al. 2007) indicated that mothers' ideas and practices related to infant development

vary substantially, even among middle-class, post-industrial Western communities. The samples for the study were drawn from the International Baby Study (IBS), a longitudinal study of caretaking ideas and practices for infants from the prenatal period to 2 years of age in the United States and the Netherlands, augmented with partial replications in Spain, Italy, and Korea. Study sites in each country were chosen to be broadly representative of a local middle-class population in a city or region. The goal of the study was not to establish national profiles, much less capture intracultural variability within increasingly multicultural populations, but rather to identify shared parental ideas and their relationship to parenting practices and child outcomes within somewhat homogeneous groups in each cultural site.

Semistructured interviews with the mothers when their infants were 2 months old indicated that parental ethnotheories of infant care and development were characterized by a relatively small number of themes and associated practices. Based on detailed coding of the transcribed interviews, a "salience index" of themes and practices was derived for each of the five samples. Cultural variability in the occurrence of these themes and practices suggests that infants in each place were learning distinctive sets of skills.

The themes of cognitive processing and stimulation of cognitive development, for example, were emphasized most by the U.S. mothers. When asked what they thought their baby's most important development need was at this time, the U.S. parents tended overwhelmingly to mention stimulation. As one mother said:

I think he needs to be warm, to be fed, to be clean, dry, that kind of thing, but I also think he definitely needs some stimulation. There are times when he is in a chair and we're not paying attention to him or, you know . . . he needs some stimulation, something of interest to look at, something to, you know, just for him to play with.

These mothers had plenty of resources that could be incorporated into the baby's settings of daily life in order to provide stimulation, as one mother described:

Somebody got us a video. It's Baby Einstein. It works a lot with colors and music and just stimulating, so we play that for him. Not every day, but almost every day. Just, there's a whole different range of things. One of

them is colors. One is language. The other one is just, you know, shapes and . . . it's stimulating to him. We try to stimulate him in some way.

The mothers also had strong direction from professional, "expert" sources of advice about the importance of stimulation, as one mother commented:

You hear about studies of brain development and having the brain make certain connections at certain points so early on, and if they're not exposed to music or things like that, that certain parts of their brain won't develop as well . . . things in my baby magazines that they give you in the OB/GYN office, books that you buy that tell you how to raise your kids. Experts, I guess.

The Korean mothers were also concerned about stimulating their babies' cognitive development, and they approached this task in terms of early academic training. As one mother said:

I play music to her or I play tapes with a recorded story so she can listen to them. The stories are recorded in Korean and in English. The earlier she starts the better.

Like the U.S. mothers, the Korean mothers also added special sources of stimulation to the baby's settings of daily life; as one mother observed:

My baby looks at new things very intensively for a long time. I think he recognizes things and he is thinking . . . I like it. It is his brain development. I would like to show him lots of things to help and encourage his brain development. . . . I put some pictures on the wall to show him things. . . . I would like to do more for him.

In contrast to both the U.S. and Korean mothers, the Italian mothers spoke about stimulation more in terms of social relationships and socio-emotional intelligence, both related to the theme of emotional closeness. In response to the interviewer's question about stimulating the baby, one mother responded:

Yes, we stimulate him. . . . Actually, my husband makes him jump, he is the "baby skier," the "baby pilot." His father makes him do all these

things and he is crazy about that, I mean he seems to understand, it sounds impossible, but he really gets crazy, as soon as he sees his dad he really brightens up. He smiles at me when I talk to him, if he hears my voice or I stand in front of him and say "Marco!" then he smiles.

For these Italian mothers, the most important opportunities for the baby's learning and development seemed to be through social interaction with others:

In my opinion he is a demanding little boy, I mean he wants to see, to do things. I don't think he likes being alone, at least now, maybe because he gets bored . . . and also because he is used to having me or other people around talking to him: aunt, grandpa or this woman who takes care of my father. There's always somebody talking to him, perhaps he's more used to seeing faces than to playing. . . . He has so much fun when somebody talks to him, puts him on the couch, plays with him, or on his bed. . . . When he's in the mood, he has more fun than with his toys!

Among the Spanish mothers, the themes of socio-emotional closeness and social intelligence were also frequently expressed. For these mothers, stimulation was described as available from the wider social and physical environment:

I believe that it is important for the baby to go out to get some fresh air and sunshine and . . . so that she relates to her environment. . . . There are some things that she doesn't see in the house. The trees, the branches, she looks at them and she likes looking at the children in the street. . . . All these are different kinds of stimulation that she doesn't see in the house.

Finally, the Dutch mothers were unique in their emphasis on the importance of rest and regularity of routines as a necessary foundation for all aspects of development. Taking the baby out for a walk in the carriage, for example, could either stimulate or calm the baby, as one mother described:

Now, I have the idea that it's healthy to be outside and he really likes it . . . also when he's restless like yesterday evening . . . and then I just go about a block with him . . . and then often he just goes to sleep.

In contrast to their concern with the baby's healthy development through rest and regularity, two cornerstones of the traditional Dutch "three R's of child-rearing" (see Super, Harkness, et al. 1996), these mothers had relatively low expectations for stimulating early cognitive development, instead emphasizing the importance of maintaining a calm, positive state of arousal in the baby. As one mother responded to a question about what activities or experiences she wanted her baby to have:

It's not that I take him to baby swimming lessons [a typical activity in this community], but we have little outings with my husband, the three of us go out and have a nice time. When he's had his bath, I give him a little massage with lotion. You know, I do what he enjoys. Or I read books with him, or he likes pictures, showing him pictures, that kind of thing. . . . You notice that he likes it, and it makes him calm.

As these examples suggest, the mothers in our five samples viewed the development of their young infants through distinctively different cultural lenses. Their ethnotheories of early care and development assigned differential importance to the acquisition of various kinds of competence, including cognitive competence, socio-emotional intelligence, and self-regulation of state of arousal. "Learning" according to these mothers could be accomplished through various different means; this in turn implied different roles for mothers.

For the U.S. mothers in our study, "stimulation" was considered the basis for learning, and it could be provided through objects in the environment, including the latest video technology. The mother's role, according to this implicit parental ethnotheory, was primarily to provide "stimulation" by making sure that the infant's immediate environment included plenty of interesting objects that would stimulate the baby's "brain development," thus equipping him for a successful transition to school and beyond.

The Korean mothers were also concerned about their babies' early brain development but they assigned themselves a more proximal role in providing stimulation. This is evident in the quotes: "*I play music to her or I play tapes with a recorded story*" and "*I would like to show him lots of things to help and encourage his brain development.*" The mothers' proximal role was also evident in the ways that they set up the baby's

environment: for example, in one home, pictures for the baby to look at were put on the wall over the sofa, where the baby could only see them while being held by the mother or other caretaker.

The Italian mothers also saw themselves as direct providers of stimulation for the baby. But in their implicit model, "stimulation" meant social interaction, not providing interesting objects or instructional materials. Speaking within the framework of this model, the mother points to social expressiveness—a smile—as evidence that the baby "understands" (exactly what he understands is not made explicit). According to this ethnotheory, it would appear that no amount of social stimulation is too much—the baby is accustomed to having people around talking to him all the time, and thrives on it.

Similarly for the Spanish mothers, the baby was perceived as an essentially social creature who demanded attention and interaction. Taking the baby outside to "the street," as it was often expressed, was a way to vary the baby's environment, thus providing various kinds of stimulation—sensory, visual, auditory, as well as social. The importance of the daily walk was emphasized by doctors, relatives—"everyone" (as one mother said)—as beneficial to both baby and mother.

Finally, the Dutch mothers' talk about their babies recalls the emphasis on rest and regularity seen in our opening vignette. We have dubbed this ethnotheory, with its focus on maintaining health and well-being through a regular and restful routine, the "horticultural model" of child-rearing, in an allusion to the flower bulb fields surrounding this community. Just provide the right conditions and monitor the child's state carefully, according to this model, and the child will develop nicely and learn what she needs along the way. Showing pictures to the baby, in this framework, was an activity intended to calm, not to educate.

Thematicity in Parental Ethnotheories of the Child

As the above examples illustrate, parental ethnotheories about their children are apparent from early on in the ways that parents talk about their infants. Indeed, some parental ethnotheories are already in evidence during pregnancy: as one American mother recounted to us, "Of course, I read to him before he was born." A striking aspect of these ethnotheories

is their consistency across domains as well as across developmental time. As with cultural models more generally (Quinn and Holland 1987), it appears that parental ethnotheories are characterized by a small number of themes that can be used for many different purposes. This quality of thematicity is captured by a study of parents' descriptions of their children, a component of the International Study of Parents, Children, and Schools (ISPCS) (Harkness, Blom, et al. 2007; Harkness and Super 2005). In each of the seven cultural sites for this study, researchers recruited a sample of 60 families with target children divided evenly into five age groups balanced for birth order and sex: 6 months, 18 months, 3 years, 4.5 years, and 7–8 years. The sample families again were broadly middle-class, with one or both parents employed and no major health problems; most of them were nuclear families with both parents present in the home; and parents in each sample were all native-born to that culture. The study sites were located in communities in Sweden, Poland, the Netherlands, Italy, Spain, Australia, and the United States. The samples of children did not overlap with those of the later International Baby Study; in addition, they were older. Nevertheless, there is remarkable continuity in the cultural themes expressed by parents from the same cultural communities that were represented in both studies (Spain, Italy, the Netherlands, and the United States).

Parents' descriptions of their children were elicited in the semi-structured interviews carried out in the ISPCS; in addition, the parents' perceptions of their children's characteristics were interwoven throughout the interviews. As we listened to these accounts, we came to recognize them as not only individual perceptions but also cultural constructions that framed parents' experiences of their own child. In these constructions, we could see evidence for a cultural model of "the child," to which a particular child was implicitly compared. Although such cultural models are by definition as unique as the culture to which they belong, they can be indexed by patterns of descriptive words or phrases found to varying extents in parents' descriptions in various settings. Parents from all six samples described their children as sociable, loving, active, and strong willed: frequencies of each of these descriptors varied from at least 5 percent to over 14 percent of all descriptors and were among the top 10 most frequently used. Beyond this common core of parental perceptions

of young children, however, group differences emerged in the particular kinds of qualities that engaged parents' attention.

Among the American parents, the attention to cognitive abilities seen in the IBS was typical: the highest frequency American descriptors included "intelligent" and "cognitively advanced" as well as "asks questions." Along with these qualities, the American parents described their children as "independent" and even "rebellious." At the opposite extreme were the Italian parents, who rarely described their children as intelligent and never characterized them as cognitively advanced. Instead, these parents talked about their children as being even tempered, well balanced, and *simpatico*—a group of characteristics suggesting social and emotional competence further supported by the characterization "asks questions," which for these families was an aspect of being sociable and communicative (see also chapter 10, this volume). The Italian parents also described their children as "knowing what they want," a less aggressive version of strong will than the American "rebellious." Like the Italian parents, the Dutch parents also focused more on their children's social qualities, describing them as "agreeable" and "enjoying life." The attribution of having a "long attention span" is a high-frequency descriptor only for the Dutch parents, as is being "regular"—not surprisingly given these parents' concern with rest and regularity and its benefits. For the Dutch parents, the descriptor "asks questions" may be linked with "seeks attention," two aspects of dependent behavior. The profile of descriptors for these parents, then, indicates a child who is positive in mood, regular in habits, and able to entertain himself for periods of time although needing attention every so often. The Swedish parents were similar to the Dutch parents in describing their children as "persistent," a quality closely related to having a long attention span. However, the most frequently used descriptors of the Swedish parents—agreeable, well balanced, even tempered, secure, and (most frequently of all) happy—indicated what may be a cultural ideal for these parents. The Spanish parents' descriptions again focus on social qualities, indexed by terms for social maturity and "good character"; these descriptions suggest a cultural model of the child centered on an ideal of the good citizen and family member. This conceptual cluster of attributes was balanced by attention to the child's cognitive abilities as expressed by the descriptors "intelligent" and "alert."

The Australian parents appeared similar to the U.S. parents in their focus on cognitive competence as indicated by the descriptors "intelligent" and "asks questions." For these parents, "happy" was also a frequent descriptor. Unlike all other samples, however, the Australian parents seemed to focus more on the child's emotional state and reactivity, as suggested by the descriptors "calm" and "sensitive."

In summary, the patterns of both cross-cultural similarity and difference in parents' descriptions of their own children suggest that these descriptions are culturally constructed in the sense that there are locally shared ideas about what child qualities are most important, most worthy of note. Comparing across the six cultural samples, there is evidence of commonality in the group of descriptors that were among the most frequent in all of the samples. At the same time, the particular ways that these are combined with other, more culture-specific profiles of descriptors suggests that each community has its own unique perspective on the nature of the child. Within the four cultural communities that were sampled for both the ISPCS and the IBS, there is evident continuity of themes: from a focus on cognitive stimulation through toys and videos to "remarkable" intelligence in the U.S. samples, from social stimulation to socio-emotional competence in the Italian studies, from the "three R's" of rest, regularity, and good hygiene to the calm, happy and well-regulated child in the Dutch studies, and from social creature to good citizen in the Spanish studies.

Parental Ethnotheories and Children's Learning: Three Challenges

The developmental niche framework makes evident the kind of systematic regularity that culture provides—environmental organization that emphasizes repeatedly or with singular salience the culture's core "messages." As Super and Harkness have suggested elsewhere (Super and Harkness 1999), it is through such cultural thematicity that the environment works its most profound influences on development. This quality of "contemporary redundancy" is important for the acquisition of skills and competencies, as it offers multiple opportunities for learning the same thing, whether that "thing" is reading, sibling caretaking, or the communication of emotions. Similarly, the elaboration of themes across

stages, over the course of developmental time, reinforces lessons learned earlier and recasts them in a more adequate format for meeting the challenges of increasing maturity.

Despite its qualities of redundancy and thematicity across development, however, parental ethnotheories are not always easily translated into action. Other factors mediate the relationship between ideas and behavior and contribute to the challenges of parenting in any culture. One frequent dilemma for American parents, for example, is the issue of competing cultural models related to family time and time for children's activities. In one such situation, the two senior authors of this paper were confronted with their daughter's invitation to join a prestigious indoor soccer team. There was only one drawback—the team would practice on Saturday evenings from 6:00 to 8:00 p.m., exactly the time when the family would otherwise be sitting down to dinner together. Fortunately for the parents, the issue was easily settled since the family was about to leave for a period of research in the Netherlands. More typically, however, parents must prioritize the importance of various cultural models, often derived from different sources, as they choose which one to instantiate.

Individual qualities of the child also may alter the ways that parental ethnotheories are used in practice. Research about parents' perceptions of their children's temperaments in the seven cultural samples of the ISPCS, however, suggests that even this adaptation to individual variability is culturally structured (Super, Axia, et al. 2007). Parents of children aged 3 years, 4.5 years, and 7–8 years in each of the seven cultural samples filled out the Behavioral Style Questionnaire (McDevitt and Carey 1978) to assess their children's temperaments in the framework of the nine-dimensional model developed by Thomas and Chess (Thomas and Chess 1977). They also made a global rating of their child's overall "difficultness." Although parents in most of the cultural samples tended to associate difficultness with low adaptability and negative mood, there were important exceptions. The Italian parents, for example, did not associate negative mood with difficultness; on the other hand, they did find being slow to warm up in new social situations to be a difficult aspect of young children's temperament. As they explained in interviews, the ability to move quickly and gracefully into new social situations was considered an important skill for navigating various gatherings of family and friends from a young age. This emphasis on the importance of social competence,

as we have seen previously with regard to Italian mothers' talk about their infants and Italian parents' descriptions of their children, underlines the point that "difficult" behavior—behavior that requires an uncomfortable change of parenting practices—varies across cultures.

When families move from their culture of origin to a new environment, parents face a different kind of challenge: how to preserve the most meaningful aspects of the children's developmental niches while incorporating necessary changes. Research on Asian immigrant families in the United States suggests that parental ethnotheories travel relatively well, and that they are at least partially instantiated in parenting practices in the new environment. For example, Parmar, Harkness, and Super (2004, 2008) found that Asian immigrant parents of preschoolers thought that they should be teachers rather than playmates to their young children, and that they actually did engage in more educational activities with their children than did a Euro-American comparison group. Likewise, Raghavan, Harkness, and Super (2009) found that Asian Indian mothers focused more on qualities such as being hospitable and responsible when describing their daughters, in contrast to the Euro-American comparison group of mothers who described their daughters more in terms of independence and being athletic. Relatedly, the Indian immigrant daughters spent more time at home with their families and entertaining guests, whereas the Euro-American girls spent more time in sports.

Parenting Ethnotheories and Children's Successful Development

As our beloved friend and colleague the late Harry McGurk used to say, there are many ways to bring up children successfully. Nevertheless, as Harry noted, the literature on parenting is replete with studies of parents "at risk" and failures of parenting; there is little research to be found on successful parenting. Perhaps it was Harry's energetic and optimistic approach to life that led him to suggest there is something important to be learned by focusing on the positive, and his own experiences working closely with colleagues from other countries that directed him to cross-cultural interests. It was his opinion that cross-cultural studies of normal, well-functioning families can illuminate different pathways to successful

parenting, thereby making it possible to see our own culturally designated routes in a new light as well.

Parental ethnotheories provide a framework for understanding the ways that parents think about their children, their families, and themselves, and the mostly implicit choices that parents make about how to bring up the next generation. Parents' cultural beliefs about children's learning, as we have seen in this chapter, vary widely even within the Western world, both in terms of what children need to learn and how parents can help them in this process. Likewise, cultural models of children's successful development—as reflected in the qualities parents implicitly choose to highlight when they describe their children—also vary in subtle but profound ways. Understanding these ideas, and their instantiation in the child's developmental niche of everyday life, can yield new perspectives on children's learning for the benefit of both research scientists and children's most ardent fans—their parents.

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CHAPTER SEVEN
THE ROLE OF ADULTS
IN CHILDREN'S LEARNING

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Anthropologists who study children in traditional societies almost universally note the absence or great rarity of adults *teaching* children in the village setting. Children are encouraged to learn on their own. This chapter teases out those instances where, in the view of adults, independent learning is not sufficient. In some situations, adult intervention—usually falling short of “teaching”—is deemed necessary. The chapter focuses on four very general issues. At *what age* is the child targeted for a course correction or intervention to facilitate his or her development and socialization? What is the *substance* or goal of this intervention? What should the child be doing that he or she isn't doing already? As we shall see, two very broad goals are to socialize children to “fit in” and to facilitate the child's becoming a contributor to the family, providing a return on the family's investment. *How* does the adult intervene? What strategies are used to change the child's behavior? Lastly, what general principle or *theory* guides these course corrections in the individual's path through childhood? These themes are woven throughout the chapter, which is organized to follow the child from infancy through adolescence.

The Absence of Teaching

Early ethnographic studies of childhood (Fortes 1938; Raum 1940) noted, with some degree of wonder, the near total absence of children

being taught (in the explanatory, didactic sense) by adults.¹ Gaskins and Paradise (chapter 5, this volume) elaborate on what anthropologists *do* see—observational learning—but one has no difficulty finding many pointed examples from the literature of adults denying the efficacy of teaching, including:

- Among Nyaka foragers, in southern India, “parents do not feel the need to ‘socialize’ their children and do not believe that parents’ activities greatly affect their children’s development” (Hewlett and Lamb 2005, 10). Young people learn their skills from direct experience, in the company of other children or other adults” (Bird-David 2005, 96).
- On Sarawak, the Punan Bah “see little point in any systematic teaching of small children, due to the belief that only from the age of about five . . . will children have the ability to reason. . . . Still even from that time on socialization practices are rather incidental. Adults rely more on setting children a good example than on formal instruction” (Nicolaisen 1988, 205).

The view that children will become competent adults largely through their own initiative is accompanied by a fairly consistent “ethnotheory” of developmentally appropriate actions on the part of children and their caretakers. A key component of that ethnotheory is to match intervention or teaching to the family’s needs and ability level of the child. Hence, adults may intervene *early* in a child’s development to persuade him or her to behave in a socially acceptable manner, but they may wait until quite *late* in a child’s development to ensure that he or she can make a useful contribution to the family garden. In the first case, the family may *accelerate* learning, while in the latter, they are content to wait until the child is *ready* to learn. We begin our explication of this theory with infancy.

Infants Are Not Seen as Learners

The educated elite in modern, industrialized societies share an ethnotheory of development specifying that teaching and learning should begin at birth or even *in utero*² (Keller 2007, 127; Kim and Choi 1994).

In other societies, and indeed in Western cultures until recently, these nascent capacities of the infant have been ignored or denied. In fact, the most common model of infant care in the ethnographic record prescribes isolation (Munroe 2005) and quiet (Reichel-Dolmatoff 1976, 277), immobility (Leighton and Kluckhohn 1948; Friedl 1997, 83), a constantly full tummy, and lots of restful repose (Tronick, Thomas, and Daltabuit, 1994). Not surprisingly then, playing with, talking to, or stimulating infants in the interest of awakening their capacity as learners is specifically rejected.

- Among the Liberian Kpelle, “mothers carry their babies on their backs and nurse them frequently but do so without really paying much direct attention to them; they continue working or . . . socializing” (Erchak 1992, 50).
- The Bonerate baby “is handled in a relaxed . . . manner . . . but also at times unemotional, almost apathetic . . . mothers do not establish eye contact with their nursing babies. . . . Toddlers are nursed quickly, without overt emotional expression. . . . [Since] 60 percent of all children die . . . the major goal . . . is to keep them alive [not] enculturation” (Broch 1990, 19, 31).

This period of quiescence and passivity does not always or even usually end once the infant begins crawling. While current thinking in developmental psychology sees this as a critical period for learning and exploration, villages or camps are not “child proofed.” There are too many hazards in the environment—many of which could be fatal—to permit the infant free range (Draper and Cashdan 1988, 342; Hill and Hurtado 1996, 154). “Crawling and toddling are not periods of exploration and learning for a Baining (New Britain Island) child; they are periods of passivity” (Fajans 1997, 89; see also Toren 1990, 172).

The general picture, then, is one in which the very young are not stimulated, played with, or talked to (Lancy 2007); they are not “ready” to learn and, indeed, might be harmed by any attempt to invade what is often seen as a fragile psyche. However, in the majority of societies, the *end* of infancy is accompanied by the first overt and often painful “lesson.” Almost without exception, infants are nursed on demand until the mother

becomes pregnant. Hence, the child must be quickly transitioned from this state of extreme dependency to give way to a new baby. This first lesson³ is examined in the next section.

Facilitating Independence

Infants constitute an enormous burden on their caretakers. Nursing is energetically costly, as is the toll taken by having to carry the infant—especially for far-ranging foragers. These costs are primarily borne by the child's mother, who not incidentally is usually the prime breadwinner and, perhaps, pregnant with the next infant (Wiley 2004). The Yoruba are quite typical in averring “mothers and grandmothers [prefer] wiry and agile babies who learn to walk early” (Zeitlin 1996, 412). Not surprisingly, we do find societies that sanction strategies designed to lessen this burden. “Kogi [Columbia] children are prodded and continuously encouraged to accelerate their sensory-motor development” (Reichel-Dolmatoff 1976, 277). A Ugandan baby at 3 months old is bundled in a cloth and placed in a hole in the ground to support the baby's spine “for about fifteen minutes a day, until able to sit unsupported” (Ainsworth 1967, 321). The Nso of the Cameroons believe that a “standing baby . . . makes less work for the mother” (Keller 2007, 124). Another practice is to dandle an infant on one's lap while the child pushes off vigorously (Takada 2005). Studies show that the “stepping” reflex is accentuated by such practices and leads, reliably, to the child walking at an earlier age (Zelazo, Zelazo, and Kolb 1972).⁴ Failure to intervene in this fashion may be seen as threatening the child's motor development⁵ (Harkness and Super 1991).

Weaning that is sometimes early—long before the child might initiate it—and severe is widely reported. “A [Luo] woman who is pregnant is supposed to stop breastfeeding, since it is believed that . . . the milk will be poisonous to the nursing baby and will cause it to get the illness *ledho*” (Cosminsky 1985, 38). Numerous ethnographic accounts show mothers imposing early and abrupt termination of breastfeeding (Fouts 2004, 138). On the other hand, extended nursing may be condemned as prolonging the infancy stage, resulting in a “weak, simpering” adult (Turner 1987, 107).

One widespread tactic to hasten independence is a phenomenon referred to as “toddler rejection” (Weisner and Gallimore 1977, 176;

see also Howard 1972, 117; Levy 1973, 454). Essentially, the toddler is “shooed away” from adult company; for example, Hawaiian “children are expected to function in a separate sphere that only overlaps that of adults at the peripheries” (Gallimore, Boggs, and Jordan 1974, 119). “With the arrival of the next sibling, *dénanola* (infancy) is over. Now, play begins . . . and membership in a social group of peers is taken to be critical to . . . the forgetting of the breast to which the toddler has had free access for nearly two years or more. As one [Mandinka] mother put it, ‘Now she must turn to play’” (Whittemore 1989, 92).

Aside from freeing up the mother for other pursuits, sending toddlers off in the company of sibling caretakers and playmates is seen as an essential component of their socialization. For example, in rural Bengal, “Little girls accompany older girls in gathering, and they gradually learn the needed skills” (Rohner and Chaki-Sircar 1988, 33). Marquesan mothers see toddlers as developing skills because they *want* to hang out with and emulate their older siblings. By imitating their sibling caretakers, “toddlers learn to run, feed and dress themselves, go outside to urinate and defecate, and help with household chores” (Martini and Kirkpatrick 1992, 124). Similarly, in the eastern New Guinea highlands, Fore children are expected to focus their attention as learners on older children, not adults (Sorenson 1976).

It follows that if mothers must “evict” their weanlings,⁶ they must have some hope that others will take up the slack. Indeed, Sarah Hrdy (2009) argues persuasively that humans are “cooperative breeders,” meaning that our success as a species has depended on the distribution of child care over a cohort of relatives—alloparents. Hence, the next important lesson—after independence—is how to behave properly toward those of higher rank (e.g., everyone else). Many societies take quite deliberate steps to prepare children for their debut in adult company.

Teaching Speech, Kin Terms, and Manners

In the highlands of Papua New Guinea, Kaluli mothers do not hold their babies *en face* to elicit a response, as direct eye contact is associated with the practice of witchcraft. Rather, they hold their babies in front of themselves and, ventriloquist-like, make them “speak” to passersby (Schieffelin 1990). This pragmatic attitude toward making the child

socially acceptable is often magnified by concerns that an “ignorant, willful” child threatens the family’s social standing. Baining parents “claim to be ashamed of their children’s public behavior” (Fajans 1997, 54). As we survey the ethnographic record, we find that the most frequent mention of explicit *teaching* occurs in conjunction with preparing the child to function within a complex web of social obligations (Demuth 1986, 75). Illustrative examples include the following:

- “The Rotuman child is subtly instructed in kin relations: ‘Why don’t you go outside and play with Fatiaki, he is your *sasigi*.’ or ‘You must show respect to Samuela, he is your *o’fa*’” (Howard 1970, 37).
- The Javanese mother repeats “polite” kin terms over and over and corrects her child’s mistakes, urging proper etiquette. Hence, “children little more than a year old . . . go through a polite bow and say an approximation of the high word for good-bye” (Geertz 1961, 100).
- Kwara’ae caregivers “tell the child what to say, line by line. . . . Encoded in repeating routines is information on kin terms and relationships and on polite ways of conversing” (Watson-Gegeo and Gegeo 1989, 62).
- “From an early age, [West African Beng] children are taught the words for all of their relatives. Everyone must be addressed properly and greeted every morning and evening” (Gottlieb 2000, 83).

Aside from learning about kin terms and relations, the young child is subject to a variety of lessons on manners. Instruction “in Tikopia in matters of etiquette and decorum begins almost before the child can fully understand what is required of it” (Firth 1970, 79). These injunctions range from the proper hand for eating versus ablution to table manners to sharing. For example, Papel (West Africa) children are offered a desirable item and then immediately told to pass it on to another, particularly a sibling (Einarsdottir 2004, 94). Failure to relinquish the treat will lead to teasing and ridicule (Loudon 1970; Riesman 1992; Schieffelin 1986). The

!Kung display remarkable affection and indulgence toward their children, tolerating violent temper tantrums, for example. But they go to considerable lengths to teach even the very young the basic system of reciprocity and exchange (*bxaro*) (Bakeman et al. 1990, 796).

Nevertheless, these examples of rather direct instruction are uncommon. Other, more indirect teaching tactics are widely employed. A number of societies—particularly in the Pacific and Asia—stimulate the development of a package of emotions, including shame, shyness, and guilt (Fung 1999, 203; Martini and Kirkpatrick 1992, 203) to better control the child’s behavior (see chapter 11, this volume). Javanese cultivate the emotion of “*isin* . . . (shame, shyness, embarrassment, guilt) [so] that at any formal public occasion [children] are exceedingly quiet and well-behaved and will sit docilely . . . through hours and hours of formal speeches” (Geertz 1961, 113). On Fiji, the same emotions “are inculcated in the child by ridicule, mockery, laughter, or plain disapproval” (Toren 1990, 183). To get a Japanese child to stop doing something, the mother will claim to be saddened by the behavior (Fogel, Stevenson, and Messinger 1992). Far from harming the child emotionally—a view held in the West—Chinese parents, for example, believe that “shame is an essential social and moral emotion, a virtue” (Li, Wang, and Fischer 2004, 794).

As the child matures, community members may subtly invoke shame (and an alteration in the child’s behavior) via the use of an apt proverb (Messing 1985, 207–8; Raum 1940, 218; Read 1960, 44–45). Folktales also send not-so-subtle warnings. The Piaroa live along the tributaries of the Orinoco in the highlands of Venezuela and share an ethos of nonviolence. Among the duties of the shaman, or wizard, is the telling of folktales, which “have high pedagogical value for the Piaroa . . . the tales tell of characters whose out-of-control behavior leads to their own unhappiness and personal disaster, and sometime to danger for others” (Overing 1988, 179). Indonesian puppet theater takes this kind of pedagogy to a higher level where the objectives and means of instruction are taken very seriously (Hobart 1988, 134).

Folklore offers to children idealized models of citizenship by showing the awful things that happen to those who transgress (Lancy 1996, 125). But there are harsher means of controlling behavior. Among the Navajo, “children are told that if they misbehave the big gray *Yeibichai* will carry them off and eat them,” and in children’s autobiographies

there is evidence that these threats are effective (Leighton and Kluckhohn 1948, 51). Among Bena-Bena tribesmen in Papua New Guinea, "both boys and girls are threatened 'in fun' with axes and knives and they run crying in terror" (Langness 1981, 16).

Corporal punishment represents an escalation in the severity with which a child's error or waywardness is treated. A broad survey of the Human Relations Area Files (HRAF) found that corporal punishment of children "occurs as a frequent or typical technique of discipline in societies in all major regions of the world" (Ember and Ember 2005, 609). A few foraging societies specifically condemn it (Endicott 1992, 286), but most adults would endorse the Wogeo practice of beating children "only so they can learn" (Hogbin 1970, 144). So central is corporal punishment in folk theories of child-rearing that parents are considered too closely attached and sentimental toward their children to function as their teachers (Alber 2004, 41; Lutz 1983, 252). On Fiji, a doting, affectionate mother will delay her child's development, and children "brought up by their [adoring] grandmothers . . . are often said to be *either* presumptuous and 'too inquisitive' or 'childish' and unable to take on the tasks proper to their age" (Toren 1990, 172). It is widely believed that, at least for certain skills or certain recalcitrant children, learning will not occur without the application of punishment.⁷ Given this rather fearsome arsenal of behavior modification tactics, it shouldn't surprise us to learn that on Tonga and elsewhere, children may prefer to "show respect by remaining on the periphery of adult activities" (Morton 1996, 90).

Ideally then, with some prodding, or deliberate instruction in a few cases, the child learns to behave in a way that won't embarrass his or her parents and to stay unobtrusively in the background. Beyond the obvious goal of shaping children to fit in, Bobbi Low's (1989) ethnology, aggregating over numerous studies such as those just cited, reveals broad relationships between child-rearing practices and preferred mating and reproduction patterns.

Native Theories of Learning and Intelligence

A central reason for the evident reluctance to *teach* children—aside from what might be termed "social survival" skills—is that, even at 4 years old, they may be viewed as uneducable. It is not until 5 or later that children

are assumed to acquire *sense*. "The child before he is five or six is said to be *durung djarwa* . . . not yet Javanese . . . not yet civilized, not yet able to control emotions . . . not yet able to speak with the proper respectful circumlocutions . . . he does not yet understand, therefore . . . there is no point in forcing him to be what he is not" (Geertz 1961, 105).

Examples of young children treated as being essentially uneducable are legion in the ethnographic record. For Fulani (West African) pastoralists: "It is when children begin to develop *baYyillo* (social sense) that adults in turn change their expectations and behavior" (Riesman 1992, 130). Kipsigis children aren't expected to demonstrate *ng'omnotet* (intelligence) until the age of about 6 (Harkness and Super 1985, 223). Interestingly, *sense* is not signaled by the child's display of knowledge or through questioning adults—in marked contrast to popular notions of intelligence in middle-class Euro-American society.⁸ "In a Mayan community . . . children are taught to avoid challenging an adult with a display of greater knowledge by telling them something" (Rogoff 1990, 60). Tongan children who "interrupt or offer advice to adults without being asked may be accused of being *fie poto* (thinking themselves clever)" (Morton 1996, 90).

"Intelligence" in the village is associated with qualities like self-sufficiency, obedience, respect toward elders, attention to detail, willingness to work, and effective management of younger siblings and livestock (Wober 1972). For the Kipsigis (Kenya), children are said to have sense when they not only can take care of themselves but can undertake certain routine chores—watering the cows, sweeping the house—without supervision (Harkness and Super 1985). A child who has demonstrated such initiative around the house may be tested by being sent on a distant errand—such as delivering a message. In one foraging society—the Huaorani—adults are delighted when the child begins carrying a basket to gather food she or he will later share (Rival 2000, 116). A study in several Guatemalan villages showed that children could be reliably ranked on the basis of this native theory of "IQ" (Nerlove et al. 1974, 265).

Of course, initiative on the child's part may not always be welcomed. For foraging people, Draper and Cashden (1988) note, "the nature of adult work is such that children cannot easily be incorporated into it" (348). Foraging requires arduous treks through difficult terrain, and accompanying children would be an insuperable burden. In fact, one finds a surprising number of anecdotes in the literature suggesting that children

may as likely be discouraged in attempting certain tasks as supported in their fledgling efforts.⁹ These range from cases of girls making attempts to weave (Lancy 1996, 149–53; Pope-Edwards 2005, 91; Reichard 1934, 38), children prevented from handling grain for fear they'll let it spill on the ground (Bock and Johnson 2004), children prevented from messing up planted rows in the garden (Polak 2003, 126), Inuit boys kept some distance from the prey during a hunt so they won't scare it off (Matthiasson 1979, 74), to Bonerate children discouraged from "helping" with fishing activities because their rambunctiousness frightens the fish away (Broch 1990, 85).

The cases just mentioned highlight unwelcome precocity. But children who take the initiative to carry out tasks that are useful, within their competence level, and unlikely to cause damage or harm are appreciated. As we discuss in the next section, most domains of adult work have an inherent hierarchical structure—affording children a stepwise curriculum to work their way through.

The Chore Curriculum

It is striking how much of the culture, the village "curriculum," is laid out for all children to observe. This contrasts dramatically with the U.S. "core" curriculum concealed in classrooms, textbooks, and lessons taught by "certified" teachers. The second and closely related point is that a child's initial steps on the road to mastery of the village chore curriculum often pass through play (see chapter 6, this volume):

- "The social role play of [Guatemalan village] girls most frequently involves the mundane daily routine work of their mothers" (Nerlove et al. 1974, 275).
- A Yanomamö boy at age 5 "plays with a small bow and a reed-like arrow that his father or brother has made for him" (Peters 1998, 90).
- Touareg boys, who will eventually learn to herd camel, first care for a young goat that they treat like a playmate (Spittler 1998, 343).

- A young Conambo girl "plays with clay, making coils, pinch pots, and miniature animals while her mother builds . . . vessels" (Bowser and Patton 2008, 110).

Adults contribute to this initial stage primarily by serving as willing role models and only occasionally go further, for example, by supplying the child with scaled-down tools. This might include giving a little girl a tiny basin and setting it on a coiled "cheater" on top of her head so she might fetch water (Read 1960, 85). The "advantage of the miniature vessel used is that from an early age girls are able to perform all the necessary manipulations without help" (Raum 1940, 196).

As suggested earlier, adults are probably casually observing these play scenes for evidence of persistence, appropriate social interaction, leadership, and emotional stability—in short, signs of emerging *sense*. They will act on their assessment by sending the child on an errand: "Run and fetch me" is one of the commonest phrases heard addressed to young children in Tikopia" (Firth 1970, 80). Kpelle adults speak approvingly of child messengers. Little children were always welcome in other people's homes and no suspicion would attach to them. A well-behaved, polite child earned the attention of potential foster parents and praise for the family's diligence in curbing asocial tendencies (Lancy 1996, 76). Delivering messages and presents (and bringing back gossip!) segues easily into marketing. The "errand" curriculum incorporates many "grades," from carrying messages at age 5 to marketing produce, hard bargaining, and making change for customers by age 11 (Lancy 1996, 156). There is an obvious trade-off here between the child's age and maturity and the consequences for his or her failure to carry out the task.

Tasks that are graded or scaled in difficulty are a core feature of the chore curriculum. Among the island-dwelling Bonerate of southwest Sulawesi, "When children are from five to six years old they are delegated their first chores. . . . The assignments are, however, always adjusted to their physical age and mental maturity. . . . The children are still not regarded as capable of heavy work such as most agricultural labor, [or] netfishing, and other activities that require physical strength" (Broch 1990, 79).

Scaling in the chore curriculum depends on four factors. First, that all other things being equal, children reliably grow into greater strength,

dexterity, and intellectual prowess. Second, children eagerly pursue more challenging undertakings without prompting. Third, they spend most of their time in the proximity of slightly older children who act simultaneously as caretakers, role models, and teachers (see chapter 6). Fourth, the village task environment is sufficiently complex so that a scaling from easier to harder is readily apparent. If, for example, we unpackage the following description, we can readily envision a scale of difficulty with many levels: “[Bengali] girls often roam around the village area, collecting mushrooms and greens from the edges of ponds . . . collecting fuel, wood, twigs, and cow dung for home consumption and for sale” (Rohner and Chaki-Sircar 1988, 31). And there is ample evidence that young learners benefit from closely observing the next higher skill levels; for example, Amhara boys are said to trail after young males “like retainers follow a feudal lord” (Messing 1985, 213). On the other hand, these same boys may find a chilly welcome in the vicinity of adults. Among the Touareg, for a boy to query an adult male, even about something as highly valued as camels, would be seen as a breach of etiquette and sign of disrespect (Spittler 1998, 247).

Girls are kept in closer proximity to their mothers, where they can observe the women's work, emulate their behavior, and lighten their burdens (see chapter 12, this volume). As they “pitch in,” girls can expect to be engaged in conversation with their mother that provides strategic information regarding the task at hand (Paradise and Rogoff 2009, 117). Their errands take them (usually in company) to the village water source to obtain water, or to the bush to gather firewood. But errand runners are more likely to be boys than girls, not because girls are any less reliable, on the contrary, but because girls’ “radius of movement shrinks rapidly, for propriety's sake” (Friedl 1997, 7–8). A girl's most valuable contribution to the household is her care for younger siblings; this is less often a son's contribution. In a careful survey of nearly 200 societies, Weisner and Galimore (1977) found that infants and toddlers were in the care of siblings as much as and sometimes more than they were under their mother's care. A 3-year-old will seek to hold her newborn brother and be permitted to do so, under supervision, for short periods. As the two age, she will become responsible for longer periods of care and meet a wider array of needs, including dressing, feeding, delousing, and above all, entertaining (Rindstedt and Aronsson 2003, 8). At age 8, we might find her caring for

several younger siblings, out of sight of her mother, perhaps taking them to a pond to bathe them and clean off any urine or excrement (Rohner and Chaki-Sircar 1988, 70–71). Years later, she may be “proudly possessive of the achievements and exploits of younger brothers and sisters who had been [her] special responsibility” (Elmendorf 1976, 94).

Gardening also incorporates the stepwise character of the chore curriculum, as meticulously documented by Barbara Polak (2003) in her study of Bamana (Mali) bean cultivation. She describes the discrete roles of 3- to 11-year-old siblings, which range from picking a few beans to place in a calabash—at age 3—to harvesting an adult portion and supervising younger siblings—at 11 (130–2). While adults are absent from this scene, in another study of planting—this time sorghum—Polak (n.d.) shows that, in a complex sequence of component skills, an adult intervenes only when the learners get hung up on the most difficult submaneuver. Among the Warao, where canoe-making is the *sine qua non* of survival, and boys expect to be mentored by their fathers, “there is not much verbal instruction . . . but the father does correct the hand of his son and does teach him how to overcome the pain in his wrist from working with the adze” (Wilbert 1976, 323). This very limited, strategic instruction is most commonly seen during the craft apprenticeship (see below).

Adults may also serve a *motivating* role. A child's initial attempts at doing useful work, like gardening, may attract a parent's attention: “Praise is probably the most effective spur to industry, and I was constantly hearing zeal rewarded with approval” (Hogbin 1970, 148). Kaoka men “may allocate plots to their sons and speak of the growing yams as their own harvest” (Hogbin 1969, 39; see also Whiting 1941, 47). In the Sepik area of Papua New Guinea, we learn: “Children's initial efforts at subsistence work are recognized by giving them food. . . . enthusiastic praise and by calling other people's attention to [the] child” (Barlow 2001, 86). Hopi girls who've learned to grind corn with a nice smooth rhythm are “shown off” to visitors (Hough 1915, 63). “Whenever a [Netsilik] girl catches her first salmon or sews her first pair of socks, [or] a boy kills his first goose or traps his first fox, the community is given notice” (Balikci 1970, 45).

On the other hand, a child's *failure* to complete assigned chores will earn rebuke. If the Kaoka boy neglects the young pig he's been assigned to care for, he will be severely chastised (Hogbin 1969, 39). A Sebei mother condemns a daughter who isn't up to the mark by saying, “I hope that

you have stomach pains and dysentery” (Goldschmidt 1986, 259). The daughter’s failure redounds on the mother, who is charged by the community with overseeing the girl’s development into a competent, hard-working, and marriageable woman. A Kwoma youngster will come under increased scrutiny when approaching middle childhood. Ordered to carry out household chores, the child will be beaten and scolded by the parents and other adults “for being lax about them” (Whiting 1941, 56). If a child is permitted to shirk responsibility, she or he will “inevitably emerge as an adult with few prospects and without the respect of the community” (Wenger 1989, 93). Consequently, a child who neglects chores or seems slow to master the chore curriculum is subject to community-wide censure, hazing by peers, barbed proverbs, and targeted folktales. On Java, the tale of two girls—*Bawang Putih* “Red Onion” and *Brambang Abang* “White Garlic”—may be used strategically. When Red Onion grew up, she turned out fine, but White Garlic “grew up stupid, unable to do anything useful, because all she had done all her life was play” (Geertz 1961, 43).

Nevertheless, because children are usually keen to help out and to demonstrate their nascent skill, and because somewhat older role models are usually available, “students” master the various chore curricula with very little adult intervention. However, as children tackle more complex tasks—such as those involved in crafts—they may need more explicit adult role models and guides.

Facilitating Craftsmanship

Among the Tapirapé forest dwellers of Brazil, a pre-adolescent boy will move into the men’s quarters and is expected “to learn the male manual arts—how to weave baskets, how to make a bow and straight arrows, how to fabricate the spirit masks that the men wear in different ceremonies, and other handicrafts. However, [there is never] any express attempt on the part of an older man to teach a young boy such pursuits. On the other hand, the *takana* is the place where adult men generally work, and a boy has ample chance to watch them at it” (Wagley 1977, 150).

In the high Andes, Bolin (2006) reports that weaving is very much a part of the village curriculum: “Children are not taught to spin or weave. Rather, they observe family members who have mastered these crafts and imitate them directly” (99). Studies of the acquisition of a potter’s

repertoire among the Bella of southwestern Niger reveal that “learning is not a particularly visible process. One is seldom confronted with situations where knowledge is explicitly transmitted from a teacher to an apprentice” (Gosselain 2008, 158). These cases reflect what Lave and Wenger (1991) refer to as “legitimate peripheral participation.” There is the tacit recognition by competent adults that children need opportunities to observe skilled work and, through trial and error and lots of practice, attempt to replicate it. The adults, if they think the child is mature and motivated sufficiently, may supply materials or the loan of tools to assist this effort. On the other hand, a busy adult may as well chase the aspirant basket-maker away (Gladwin and Sarason 1953, 414). In any case, active instruction is not evident.

Photo 7.1 shows one step in the construction of a felt textile common to Kyrgyzstan. At this point, the mother is engaged in some finish work and is aided by her elder daughter while younger ones observe. Earlier in the process, all three girls (sans mother) completed the task of crushing the wool and expressing water; still earlier, the mother created the design while the three girls observed.

In a few cases, craft production may be transmitted through a more formal *apprenticeship*. Dioula (Côte d’Ivoire) apprentice weavers will be supervised by their father or uncle through a long, multistage process. An



Figure 7.1. Shyrdak construction, Tamchy village, Kyrgyzstan (D. Lancy photo)

important distinction is that in an apprenticeship, an adult has made a specific, contractual commitment to transmit his or her skill—for remuneration. At age 8, the apprentice weaver will wind thread onto bobbins for hours at a time. Next he will stretch the warp on the ground before it is transferred to the loom. He may also be permitted to weave plain, undyed strips. After about three years of this more menial work, actual *instruction* begins in earnest when the master sits beside the boy at the loom and begins to demonstrate some simple patterns, which the novice copies. By the time the novice is deemed proficient enough to learn how



Figure 7.2. Apprentice coppersmith, Fez, Morocco (D. Lancy photo)

to prepare the warp, he may be 18 years old and have produced a great many woven goods. These are appropriated by the master as payment for the training (Tanon 1994). Indeed, one of the main reasons that the apprenticeship is so lengthy is the opportunity to take full advantage of the novice's uncompensated labor.

Among the Tukolor of Senegal, "Some fathers prefer that another weaver should train their sons after they have acquired some basic skills since they feel that they will not exert enough discipline in training" (Dilley 1989, 188). The notion that parents may not be stern enough to function as their child's teacher is common in the literature (Goody 2006, 254). Another common theme, well illustrated among the Tukolor, is the existence of a body of secrets and lore parallel to the more mechanical skill inventory. This material is closely guarded and the clever apprentice is expected to winkle it out of the master or other senior craftsmen (Dilley 1989, 190; McNaughton 1988, xvi).

There is, in short, a tension inherent in the apprenticeship because, we would argue, adults are so loath to serve as teachers and youngsters resist playing a subordinate's role. Singleton's (1989) ethnography of a Japanese pottery workshop portrays a relationship rife with the hauteur of rank: "When an apprentice presumes to ask the master a question, he will be asked why he has not been watching the potter at work, or the answer would be obvious" (Singleton 1989, 26). Similarly, in the training of master minaret builders in Yemen, "Curses and derogatory remarks—as opposed to explanation—were the most common form of communication from 'teacher' to 'learner'" (Marchand 2001, 144).

Another theme in the literature on apprenticeship concerns the amount of freedom novices have to exercise innovation and creativity. Among Dii potters of Cameroon, girls are apprenticed to their mothers. "Initiative and trial and error are forbidden; every gesture must follow the mother's pattern. Corporal punishments (spanking, forced eating of clay) are used to ensure that rules are respected, and verbal humiliations are very common. . . . Good behavior is rarely noticed, but errors are always pointed out in public. This treatment puts a lot of pressure on the apprentices, who tend to be quite nervous when working in their mothers' company" (Wallaert-Pêtre 2008, 190–1).¹⁰

As with the Dii potters, the Hausa weaving apprenticeship "is very rigid and conservative. The apprentice is not expected to innovate, alter,

change or improve upon anything. He is to copy the master's techniques . . . exactly" (Defenbaugh 1989, 173). Similar rigidity is observed in the training of West African blacksmiths (Coy 1989; McNaughton 1988) and in the production of grater boards by Baniwa tribesmen in northwest Amazonia (Chernela 2008, 145). Contrasting cases can be found among Conambo (tropical eastern Ecuador) potters, where creativity is valued and young potters are free to acquire styles and decorative ideas from others (Bowser and Patton 2008). Likewise younger Fali (Cameroon) potters are always trying out new ideas and aren't afraid to fail. "Personal gratification is important and overrides the judgment of other potters . . . leading to a diversity of production and style" (Wallaert-Pêtre 2001, 483, 489). In the Chiapas Highlands of Mexico, there has been a transition in the handwoven products over the last 30 years as daughters learning traditional patterns under their mother's tutelage now learn on their own and produce novel market-driven designs (Greenfield 2004). In fact, there is growing evidence that the more conservative apprenticeship programs actually lead to the decline of the craft as demand for traditional products wanes (Friedl 1997, 4; Wallaert-Pêtre 2008, 187).

While formal apprenticeships are not common, they are striking in both the wide commonality of their structure and in the fact that they reflect *formal* means of instruction. As children develop, the community continues to rely largely on the *informal* interaction inherent in family life and group work to transmit skills and values. We have seen how children as young as 3 readily accept their assignments in the chore curriculum and, later, apprentice themselves to acquire more complex skills. The transition to adulthood is fairly seamless. Learning social conventions is stressed from an early age and "fitting in" is rarely a problem.

Managing Adolescence

Earlier in the chapter, we identified a period in the child's life when, in some societies, the child's behavior is quite deliberately shaped to conform to a more "proper" or mature form of social interaction. Adolescence is the second point in the life cycle where we may see this very deliberate, even coercive intervention to bend the youth to social expectations. In most societies, as they mature physically and acquire the gender-appropriate repertoire of adult competencies, children pass briefly through adoles-

cence and settle comfortably into the roles of spouse, parent, and provider. However, in approximately half of the societies in the ethnographic record, adolescents must pass through a rite of passage (Schlegel and Berry 1979) which, in effect, certifies them as ready to begin mating and forming their own family (Vizedom and Zais 1976). Montgomery discusses initiation as a rite of passage from a gender socialization perspective (chapter 12, this volume), but we touch on it briefly here because it represents a significant investment by the community in children's socialization.

Like apprenticeship, the rite of passage is one of the very few cases of *formal* education (Lancy 1996, 163–78) in the village setting. Not that these rites incorporate the transmission of practical skills. Rather, they force adolescents through dramatic and usually painful experiences (circumcision, clitoridectomy, body scarification, penetration of the nasal septum or ear lobe) designed to impress on them respect for the legal and spiritual authorities in the community and the values they espouse (Lancy 1975). "The dominant theme of the initiation is that of an ordeal—trial and proof of maturity" (Goldschmidt 1986, 95–96).

Among West African Mende farmers, the girls' initiation is organized by the Sande women's secret society, and a few, important lessons are conveyed: "One of the most dramatic ritual elements . . . is clitoridectomy. . . . Sande women explain that this makes women 'clean' . . . [also] the pain . . . is a metaphor for the pain of childbirth. . . . [Another] important element in the ritual process of Sande initiation is fattening. Beauty, prosperity, health and fertility are explicitly linked to fatness" (MacCormack 1994, 111–2). Similarly, the Bemba (Zimbabwe) girls' initiation process, *chisungu*, is replete with sexual imagery, to underscore the woman's role as breeder (Richards 1956, 65). Another common theme is the role of the woman as provider (Guss 1982, 264).

Historically, pastoralist societies in Africa were noted for their readiness to attack neighboring groups in raids to secure cattle and women. This may lead to the creation of warrior subcultures which young men are inducted into (Gilmore 2001, 209). The process of joining the Masaai warrior elite, becoming a *morán*, includes circumcision where a "flinch or even the bat of an eyelid as primitive razor sears into flesh is interpreted . . . as a desire to run away and [this loss of] honour . . . can never be redeemed" (Spencer 1970, 134). Throughout central and northern Papua New Guinea, elaborate rites of passage separate boys from their mothers

and make them “manly,” and teach them to despise and lord it over women and enemy tribesmen. The first stage in this initiation includes days of hazing, fasting, beating, sleeplessness, and sudden surprises. This is followed by forced nose-bleeding to remove female contaminants. The process is violent, painful, and frightening (Herdt 1990, 376). The senior males assert their superiority over the youth while inculcating the moral imperative of male dominance. To this end, they will make use of “secrets,” including sacred terms, rituals, locations, and objects such as masks. These “secrets” are denied to women on pain of death (Tuzin 1980, 26).

In the absence of a warrior subculture, adults may yet feel the necessity of curbing or taming their obstreperous and “self-centered” adolescents (Weisfeld 1999, 106). Canela tribesmen from Brazil publicly chastise and humiliate wayward youth (Crocker and Crocker 1994, 37). Don Talayesva—who grew up in a conservative Hopi village—confesses in his autobiography to being quite “naughty” as a boy. So, when he was initiated into the Katchina society with his age group, his father arranged for him to be taught a lesson by having the Whipper Katsinas give him extra blows with the sharp-spined ocotillo whips to “drive the evil from [his] mind, so that he may grow up to be a good and wise man” (Simmons 1942, 80).

Because childhood is a time of relative freedom, societies have evolved mechanisms to guide youth onto the straight and narrow path of sober, responsible adulthood. A secondary theme in the ethnographic literature is that boys, associating exclusively with women throughout childhood, are weak and contaminated and must be forcibly strengthened and purged. Both motives can be found embedded in the rites of passage that serve to correct the youth's trajectory. The teaching/learning process is better described as indoctrination than education (Lancy 1975). The lessons may be few but they are deeply learned.

Summing Up

Before shifting focus to the contemporary scene, we'd like to review what might be concluded from a survey of children's *guided* acquisition of cultural practices. The common elements found in ethnotheories of child socialization include that children learn best on their own and that this initiative frees up adults from serving as teachers. The entire community

and its surroundings are seen as the “classroom,” and the “curriculum” is displayed as an “open book.” It also includes the core idea of “readiness”—that at certain times in the life cycle, intervening to assist the child to greater knowledge or skill will be most efficient. Four periods are at least loosely demarcated in the ethnotheories that people use to structure socialization, namely infancy, toddlerhood or early childhood, middle childhood, and adolescence. Not much cultural learning is expected to occur in infancy; rather, steps are taken to secure and shelter the child. In early childhood, limited and very strategic intervention is called for in *some* societies, to accelerate independence and/or to accelerate the child's assuming “correct” social behavior, including appropriate language. Otherwise, toddlers are expected to learn from emulating peers, through observation, and in play. Adults don't feel the need to intervene nor even to monitor closely the child's progress in personal hygiene, motor development, or speech, to name a few examples.

In middle childhood, through various changes in behavior (e.g., greater maturity and common sense), children signal two things to adults. First, they indicate they are ready to deploy the broad knowledge they have been independently acquiring in early childhood in carrying out useful activities such as errand running or baby minding. Second, they indicate they are ready to learn new skills, skills heretofore beyond their capacity or that required some degree of intervention by a busy adult. Again, however, the onus to acquire these skills rests primarily on the child.

In adolescence, there may arise the need for more deliberate instruction by adults. There are two general areas where this might occur: apprenticeship in the production of craft items and the initiation rite. In both situations, children must subordinate themselves to a master or senior member of the same sex. In both situations, obedience and the learning of lore are important, and some degree of verbal and physical abuse is considered essential in the teaching process, which is why parents aren't favored as teachers.

Contemporary Challenges to the Village Learning Model

Throughout this chapter, we have used the ethnographic present and tried to distill the patterns widely recorded by anthropologists who've observed

childhood in non-Western societies beginning with Malinowski in 1914 (LeVine 2007). However, those patterns have been rudely shattered in many cases. Here we will briefly review the major disruptive forces and how they have affected what children are learning and from whom.

Most obviously, overpopulation, poverty, environmental degradation, civil strife, and epidemic disease (HIV/AIDS, tuberculosis) have conspired to force even very young children to fend for themselves and/or earn a meager wage to support their families. In undertaking work that pays a wage, however meager, children may lose the opportunity to observe and learn from adults carrying on traditional subsistence activities. We can only assume that if children are picking coffee or weaving rugs for hours each day, their opportunities to acquire the full panoply of the village curriculum are, therefore, limited. On the other hand, the obviously innate ability of children to learn through observation and from slightly older peers is certainly adaptive for survival in the streets (see chapter 17, this volume).

Schooling was thought to be the elixir that would transform and modernize village life, but this has rarely happened. The practices that worked so effectively to transmit the traditional culture don't transfer well to the school (Philips 1983). For example, the villagers' ethnotheory dictates that parents grant children autonomy to learn on their own, which leads them to a posture of "noninterference" in their children's schooling (Dehyle 1992; Levin 1992; Matthiasson 1979). Children are ill prepared to cope with the demands of classroom learning while also removed for most of the day from the community. Peruvian Shipibo children are kept "from learning their environment and own culture, [while acquiring] only minimal skills for life in town" (Hern 1992, 36). Inuit children "whose parents at the same age were already hunters or wives now continue to carry their books to school daily, awaiting the time when they can step into the 'real' world of adulthood" (Matthiasson 1979, 73).

Modernization often means that the skills of adults are no longer viewed as relevant (Friedl 1997, 4). Hence, their stature in the eyes of youth is diminished (Goody 1989, 239). This "drift" from conformity with the village social structure has been arrested in the past by a rite of passage. But these rites have also gone by the boards (Biersack 1998, 87). Among the Bumbita Arapesh, village youth have rebelled against the hegemony of senior males, refusing to subject themselves to the customary

initiation rites. Their exit from the traditional socialization pattern has had a broad impact on the life of the community (Leavitt 1998, 178). During the long civil war in Angola, among the Tchokwe, "children were abducted . . . to fight [hence] the initiation rituals and systematic preparation of young people to become responsible adults ceased. A whole generation was seriously affected" (Honawana 2006, 43).

Social change is accelerating in the world's rural communities, and children are most affected. Their fate is uncertain. The migration of manufacturing in search of the lowest wage scale has dramatically increased demand for child labor (Kenny 2007) and the number of formerly village-resident children earning a wage from such labor is vastly greater than the tiny fraction earning a living from skills learned in school (Serpell 1993, 10). However, children's ability to learn unaided may be a boon in rapidly adapting to new opportunities, and they may be in a position to assist their kin in adjusting to change (Orellana 2009).

A Note on Methodology

The methodology we have employed in surveying the ethnographic record, assembling illustrative cases, and teasing out broad patterns is referred to as *ethnology*. As a scientific method, ethnology is the comparative analysis of data compiled from the hundreds of in-depth ethnographic studies of individual societies. These analyses often focus on the search for biologically based or universal aspects of cultural patterns, *cultural invariants* (Voget 1975).

Franz Boas, as director of the American Ethnological Association, is often credited with the founding of the U.S. ethnological tradition. While Boas had demonstrated the value of an inductive approach where broad patterns of human behavior could be discerned from the ethnographic record, accessing that record was a challenge. George Murdock was among those at the Yale Institute of Human Relations who recognized the need for a better organizational system for the growing body of ethnographic material. In 1950, he announced the creation of the Human Relations Area Files, or HRAF. HRAF provides access to a systematic compilation of ethnographic material, initially on index cards, then on microfiche, CD-ROM, and now wholly online. Organized into nine geographic regions, it includes thousands of documents (Roe 2007, 48).

An indexed classification system of subjects or Outline of Cultural Materials (OCM) enables searches of full-text documents within the collection. Each paragraph within each text has been cross-referenced with a three-digit OCM, which enables the user to search a large range of topics across and within texts (HRAF 2008; Roe 2007).¹¹ HRAF not only provides a comprehensive and searchable archive but, through the painstaking efforts of many scholars, it also includes "codes" or variables that have been reliably assigned to large, standardized samples or subsets of the larger corpus. Barry and Paxon's (1971) efforts are exemplary in this regard. Working with a sample of 168 societies, they were able to reliably code for systematic comparison dozens of child-care practices such as sleeping proximity, bodily contact, carrying technique, and postpartum sex taboo. Data coders found that some ethnographers were thorough in providing accounts relating to infancy and childhood while others were mute on the subject.

Several landmark studies in the anthropology of childhood have utilized the HRAF archive, such as the Weisner and Gallimore (1977) study cited above. Barbara Rogoff and colleagues selected 50 cases from the HRAF archive that provided extensive information about childhood in an effort to illuminate the transition points in children's development and the age ranges at which children were assigned various roles and responsibilities. Roles and responsibilities were assigned to 27 categories, and they found that "a modal cultural assignment of social responsibility" occurred in the 5–7 age range (Rogoff et al. 1975, 365). Other transitions occurred at puberty (e.g., sexual attraction and complete adoption of adult clothing). As a last example, we would cite Katharine MacDonald's (2007) seminal study on children learning to obtain game from hunting and trapping, described more fully in chapter 15 of this volume. Like MacDonald's study, our own research has used both the "thumbing through books and journals in the library approach" (Roe 2007, 50) and HRAF (Lancy 2007, 2008; Lancy and Grove 2009).

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Notes

1. We have only found three examples in the literature of teaching with a capital T. They are (1) the quite explicit and elaborate system for teaching kin relations and etiquette found on Kwara'ae in the Solomon Islands (Watson-Gegeo and Gegeo 1989); (2) the similarly explicit and mandatory transmission of food taboos by parents to offspring among the Ituri people in the Congo (Aunger 2000); and (3) the training of navigators in the Caroline islands (Gladwin 1970).

2. The "Baby Plus" prenatal education system describes the womb as the "perfect classroom." See www.babyplus.com.

3. As Montgomery discusses in chapter 12 of this volume, there nevertheless may be quite subtle and implicit lessons conveyed to the infant regarding gender and status.

4. I'm grateful to Suzanne Gaskins (personal communication) for pointing out the conflict between hastening the child's independence in order to unburden caretakers versus exposing the mobile but not yet sufficiently cautious child to environmental hazards, as noted in the previous section.

5. This emphasis on accelerated motor development in many East African societies can be contrasted with a complete indifference toward speech development (Harkness and Super 1991, 227).

6. While independence is universally valued, there is considerable variability in the child's "territory." Marquesan children are encouraged to range far from home (Martini and Kirkpatrick 1992), whereas Mayan children are expected to remain within the mother's hearing (Gaskins 2006).

7. This emphasis on scare tactics and corporal punishment to control the child's behavior probably accounts, in part, for the paucity of evidence for children learning directly from adults. This assertion arises from one of the earliest conclusions about the way humans learn (Yerkes and Dodson 1908). This 100-year-old notion is described as: "animals seem to learn more when they are in a state of moderate arousal than when they are in states of either low arousal or high arousal (an inverted-U-shaped learning curve)" (Byrnes 2001, 86). In other words, the high arousal associated with scaring or punishing children does not—in spite of folk wisdom to the contrary—create ideal conditions for learning.

8. "American middle-class parents are very proactive about encouraging their children to talk, and to talk early. . . . We put such emphasis on talking early, presumably because we view this as a sign of intelligence" (Quinn 2005, 479).

9. We concur with Goodnow's (1990, 279–80) skeptical review of Vygostkian models that show adults patiently reorganizing tasks and assisting unskilled children in their attempts at learning complex skills. The ethnographic record

contains many more instances of would-be child "apprentices" being rebuffed than invited.

10. We would argue that the harsh, punitive tone of the apprenticeship makes sense as a means of quickly weeding out novices who lack the skill and motivation to persist. The time available for a craftsperson to invest in teaching is extremely limited and they are loath to waste it.

11. For a listing of HRAF OCM codes, see www.yale.edu/hraf/outline.htm.

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CHAPTER NINE LEARNING IN SCHOOLS

Leslie C. Moore

Halima's School Day

Six-year-old Halima sat at her desk, which she shared with another girl and two boys, and listened attentively to her first grade teacher, Mr. Garza. In a loud, clear voice, he began the language lesson, "Bonjour, Papa. Répétez?" Halima and most of her 150 classmates repeated loudly after him the first line of dialogue that he had introduced the day before: "Bonjour, Papa." Mr. Garza said again, "Bonjour, Papa," and the class repeated after him, "Bonjour, Papa." Then Mr. Garza modeled the second line of the dialogue: "Bonjour, mon fils." There was a second of silence. Mr. Garza prompted the class to speak, and several students (but not Halima) produced a repetition of the second line, "Bonjour, mon fils." The teacher approved the repetition and then elicited more of the same: "Très bien. Encore? Bonjour, Papa." The class practiced the two lines of dialogue under Mr. Garza's direction for another 30 minutes, chorally, by row, by desk, and in pairs. On this day, Halima was not one of the children called on to perform the dialogue with a classmate at the front of the classroom. After the language lesson came a mathematics lesson, followed by recess, followed by a writing lesson. All the lessons were conducted entirely in French, while at recess children chatted and shouted in local languages, including Fulfulde, which was Halima's native language and the regional lingua franca. At noon, it was time to go home. Another public elementary school used the same cinder-block classrooms in the afternoon.

Halima walked the kilometer home with her big sister and two boy cousins. She had lunch and a short rest before heading to her Qur'anic school just down the street, around 1:30. Her teacher, Mal Buuba, was not at home when she arrived, but his teenage son was there to supervise the students. Halima took her *alluha* (a wooden tablet on which Qur'anic verses are written for a child to study) from where she had left it the evening before, leaning against the wall of the entryway of Mal Buuba's family compound. She sat down on the gravel-covered ground with her back against the mud wall, crossed her legs, lay her *alluha* on her lap, and resumed her study of the 108th chapter of the Qur'an. For almost two hours, she practiced her recitation of the *basmalah* (the brief invocation that precedes all but one chapter of the Qur'an) and the three short verses. She repeated the Arabic text over and over in a very loud voice, sometimes bent over her *alluha*, sometimes sitting up straight. Five other girls from the neighborhood sat along the same wall as Halima, and against the facing wall sat her two boy cousins (who were also in her first grade class) and four other neighborhood boys. Each child recited a different text in a loud voice. Whenever the volume began to fade, Mal Buuba's son commanded them in Fulfulde to recite "with force." At the sound of the call to the afternoon prayer, Halima and the other children stopped reciting, put away their *alluhas*, and went home. After dinner, Halima returned for the evening session, practicing her recitation for another hour and a half before the call to the night prayer signaled that it was time to go home and go to bed.

Anthropologists in Schools

The scenes above were recorded in Maroua, Cameroon, in 2000. While they illustrate school experiences that are common in much of the world, they do not conform to current Western conceptions of school learning, and most educational researchers ignore such schooling practices and the settings in which they are prevalent. However, anthropologists have conducted many studies in such settings, and their work has expanded and deepened our understanding of how learning is conceptualized, organized, and realized in formal educational contexts. This chapter briefly reviews that literature before returning to the Cameroonian research, which will

serve as a case study of the application of anthropology to the study of learning in schools.

Rooted in the work of the 1930s and 1940s on enculturation in non-Western, nonindustrialized societies, the anthropology of education (also known as educational anthropology) emerged as a subfield in the 1950s (Singleton 1999). Much of the early work examined the transmission of culture in school and community settings (e.g., see Gay and Cole 1967; Modiano 1973; Peshkin 1972; Wolcott 1967; and other monographs in the Case Studies in Education and Culture series edited by George and Louise Spindler). In 1970s and 1980s, several ethnographic studies identified differences between "home" and "school" with respect to communicative patterns; cognitive and learning styles; and the values, beliefs, and identities associated with particular ways of learning and knowing (e.g., Au and Jordan 1981; Erickson and Mohatt 1982; Heath 1983; Philips 1983; Tharp and Gallimore 1988). These detailed accounts of home/school discontinuities were offered as (partial) explanations for the disproportionate school failure of ethnic and racial minorities and as arguments for changing the way learning environments were organized in schools. More recently, anthropologists have sought to understand how historical and political forces shape schooling processes; how learning and knowledge are defined differently across contexts; how and why school experiences vary across learners by social categories such as race, class, and gender; and how students and teachers exert their own agency as they appropriate school practices and create new ones by drawing on classroom and community traditions (for several case studies in this vein, see Anderson-Levitt 2003 and Levinson, Foley, and Holland 1996).

Anthropologists of education have illuminated the social organization of schools and classrooms, the values and beliefs that inform schooling and those that are meant to be formed by schooling, and the meanings and consequences of schooling and school practices for individuals and communities. Their studies vary in their relative focus. Some focus on the school and/or the community as a whole in order to understand the complex interplay of policies, values, curriculum, and pedagogy (e.g., Coe 2005; Lomawaiama and McCarty 2006). Others focus on the interactions between teachers and students and among students, locating learning in these culturally organized encounters (e.g., Anderson-Levitt 2002;

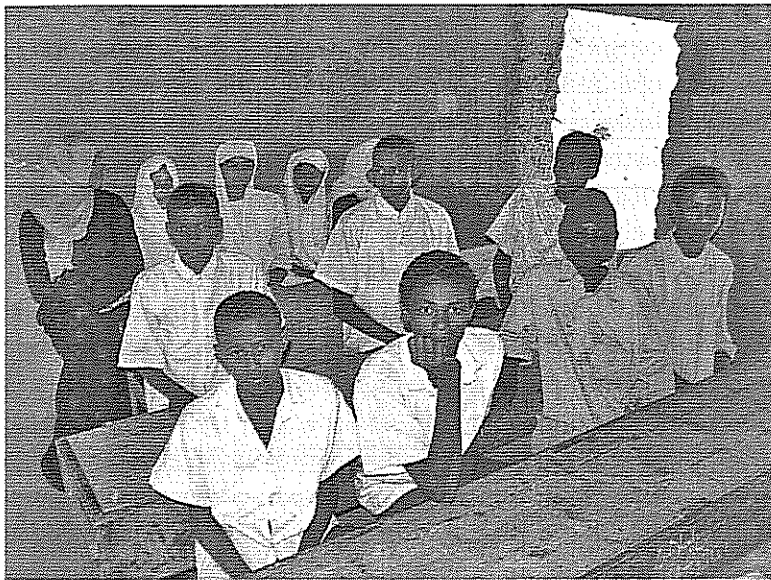


Figure 9.1. Classroom in northern Sudan (V. Blaha photo)



Figure 9.2. Classroom in northern Sudan (V. Blaha photo)

Schieffelin and Gilmore 1986). And some studies focus on individuals, whose lived experiences and personal narratives are mined for insights into how they participate in and make sense of schooling (or not) (e.g., Cheney 2007; Stambach 2000). Holistic and comparative in perspective, anthropological studies explore how the practices and values of schooling relate to and often conflict with those of other domains of community life. Thus, schools are studied as sites of cultural reproduction and of cultural contact and change.

Many anthropologists have documented the kinds of schooling practices described at the beginning of this chapter. Rote learning and the (nearly) exclusive use of languages that children do not understand well are early and persistent features of schooling throughout the non-Western, nonindustrialized world (Lancy 2008, 313–23). Many scholars have identified these practices as important factors in the low rates of school achievement and completion typical of public schooling in much of the developing world (Anderson-Levitt 2005; Barnett 1979; Bolin 2006; Goody 2006; Hollos and Leis 1989; Hornberger and Chick 2001; Juul 2008; Kulick 1992; Moore 1999; Nash 1970; Watson-Gegeo and Gegeo 1992). The prevalence of rote learning and its persistence in the face of reform are interpreted by many of these scholars as an adaptation to educational policies that privilege the “national” language (often the language of the former colonizers) and to severe underresourcing of many public schools that has led to overcrowded classrooms, students without textbooks or other materials, and teachers with insufficient training and school language proficiency. While rote learning in public schools is seen by anthropologists as symptomatic of structural problems, rote learning in Qur’anic schools is often described as integral to the tradition (e.g., Eickelman 1985; Fernea 1991; Mommersteeg 1988; Moore 2008; Sarterre 1973), even in communities where reform in pedagogy, curriculum, and patterns of participation had occurred or were under way (e.g., Boyle 2004; Brenner 2001; Gade 2004; Wagner 1993).

Cameroon Field Study of Children in Schools

Rote learning is discussed in many anthropological studies of schooling, but few researchers have given it close analytic attention.¹ In my own research, I have sought to understand the organization and significance of

rote learning in public and Qur'anic schooling in the Fulbe community of Maroua, Cameroon. My study expands the discussion of home/school discontinuity in two ways. First, I systematically compared two schooling traditions in a single community.² Second, I integrated the ethnographic, historical, and interactional discourse analytic approaches that have characterized different strands of anthropological studies of schooling. I worked closely with seven young Fulbe children to document their experiences in their schools and homes (for an example of child-centered ethnography of schooling, see Cheney 2007). I contextualized microanalysis of video-recorded interactions in a holistic study of the community to illuminate the structures of everyday interactions as cultural arrangements, shaped by and in turn shaping community beliefs and values (for a discussion of microethnography, see Philips 1983; Schieffelin and Ochs 1995; also see chapter 10, this volume). I further situated my analysis through broader study of the history and politics of the region, the nation, and the two schooling traditions (for examples of the historical-ethnographic study of schooling, see Coe 2005 and Stambach 2000).

For centuries, rote learning has been part of the educational experience of children around the world. It is foundational to the traditional pedagogies associated with many religious movements (Wagner 1993). Common to all of these traditional pedagogies is the ideology that the achievement of verbatim oral mastery of sacred texts through rote learning is an appropriate and effective way to instill religious orthodoxy and good moral character. Jews memorize Hebrew texts (Drazin 1940), Catholics (pre-Vatican II) memorize Latin texts (Nash 1968), Muslims memorize Arabic texts (Bray 1986), and Hindus and Buddhists memorize Sanskrit texts (Dreyfus 2003). In these traditions, recitation and memorization of sacred texts are valued as acts of piety, discipline, personal transformation, and cultural preservation, whether or not the individual understands the literal meaning of the text.

Built on the foundations of religious education, secular schooling around the world also entails rote learning (Wagner 1983). The recitation and memorization of Greek and Latin texts constituted a large part of curricula in European schools for hundreds of years (Carruthers 1992; Cubberley 1922; Nash 1968). Until the late 1800s, European and North American pedagogical practice stressed textbook memorization and strict discipline, with the former believed to be an important mechanism for

instilling and maintaining the latter (Ariès 1965; Cubberley 1922). Rote learning fell out of favor in the West during the 20th century with the advance of the progressive education movement, which stressed learning through doing and methods that encouraged experimentation and independent thinking by learners (Hori 1996). Rote learning came to be characterized as bad for children's creativity, understanding, and enjoyment of learning. Yet it remains a part of schooling all over the world, especially in East Asia (Ho 1994) and among religious fundamentalists in the United States (Wise and Bauer 2004).

Two Schooling Traditions

At the start of this millennium, Qur'anic school and public school in Maroua, Cameroon, were two very different educational institutions, each with its own long and distinct history and tradition of pedagogical practice. The Fulbe established the first Qur'anic schools in northern Cameroon after their jihad of the early 19th century, and Maroua quickly became a center of Islamic education that attracted the sons of the Muslim elite from all over the region (Santerre 1973). The first Western school in Maroua was opened in 1918 by the French colonial administration, and the sons of Fulbe aristocrats were recruited (with limited success) to attend the school in preparation for colonial service (Tourneux and Iyébi-Mandjek 1994). Much changed in Cameroon in the years since the first schools were founded, but the two schooling traditions endured, and Fulbe children participated in both in increasing numbers (Seignobos and Nassourou 2000).³

The first several years of Qur'anic schooling were dedicated primarily to the reading, writing, reciting, and partial memorization of the Qur'an in Arabic, which was a sacred language in this community but not one used for everyday communication. The primary lesson objective was the faithful—that is, verbatim, fluent, and reverent—recitation of the text by the novice without assistance. Accurate reproduction of Qur'anic texts was the goal, while comprehension was not. Halima, for example, spent several hours mastering the recitation of four lines from the Qur'an, but the meaning of the text was not explained to her, nor did it occur to her to ask for explanation. Correct rendering of the sounds of the Qur'an constituted the essential first layer of understanding of the sacred text. Subsequent

layers of understanding were reserved for the learner who had “finished his Qur’an,” that is, recited and written the entire Qur’an without error. A learner might take anywhere from three years to a lifetime to achieve this, and most Maroua Fulbe never did (Santerre 1973).

Public schooling in Cameroon had a structure of cycles, examinations, and diplomas derived from the French educational system (Capelle 1990). The overarching goal of the early grades was for the child to grow accustomed to the school environment and the French language. In the first two or three years, most instructional time was spent on learning to speak, read, and write French, since the vast majority of children came to school with little or no proficiency in French. In language lessons, children repeated utterances modeled by the teacher; copied texts the teacher had written on the blackboard; and memorized songs, poems, and dialogues. Because French was both the target language and the language of instruction, lessons in any subject (civics, hygiene, mathematics, national culture) were conducted in much the same way as language lessons. For example, during the math lesson that followed Halima’s language lesson, she and her classmates repeated over and over the addition equations modeled by the teacher, just as they had repeated lines of dialogue. The official expectation was that children develop a basic level of generative competence in French over these first years of schooling; that is, they should come to understand simple French utterances and express themselves simply in French (Ministère de l’Éducation Nationale 1998). However, most students who started public school in Maroua left school before achieving this level of competence (Iyébi-Mandjek 2000).

In Qur’anic and public schooling, nearly all instruction was in a second language, and second language learning was believed to entail two intertwined processes: the formation of good linguistic habits and the transformation of heart and mind. Teachers in both kinds of school believed that students developed morally and intellectually through the memorization of high-quality linguistic material under the guidance of an expert. For Muslims, the best material was the Qur’an, which was believed to have the power to transform those who committed it to memory (cf. Gade 2004). Similar ideologies have informed French-language instruction in Africa since colonial times. An African became “civilized” (*évolué*) in part through learning French, that is, by acquiring the habits of rational

speech and thought—“the French clarity” (*la clarté française*)—that was modeled in the texts they learned by heart (Dauzat 1949).

Qur’anic schooling was believed by Fulbe to provide children with a complete socialization (“*une formation totale*”) (Adama and Amadou 1998; Santerre 1973). Some Qur’anic teachers provided instruction in the basic tenets of Islam (e.g., monotheism, Mohammed’s status as the final prophet), and a few supervised children’s daily prayers. However, Qur’anic school was not only about studying the Qur’an, learning to pray, or learning the basic tenets of the faith. Instilling discipline, respect, and self-control is described as one of the primary goals of Qur’anic school throughout the Muslim world (Bray 1986; Musa Ahmed 1996; Sanneh 1975). According to Tourneux and Iyébi-Mandjek (1994), Qur’anic schooling in Maroua had as its principal objective not the teaching of knowledge, but the inculcation of the values of Muslim society (see also chapter 11, this volume): faith in God, respect for authority and hierarchy, the primacy of the spiritual over the temporal. It was about learning how to *be* Muslim and Fulbe, identities that were considered nearly one and the same.

Like Qur’anic schooling, public schooling was intended to promote and guide children’s intellectual, social, and moral development. The child was expected to develop an objective understanding of the world, an individual self-concept, and a Cameroonian identity (Ministère de l’Éducation Nationale 1998; UNICEF 1993). In both colonial and post-colonial times, public schooling has sought explicitly to promote supra-ethnic identity and to change mentalities from “traditional” or “tribal” viewpoints, which were regarded as impediments to social and economic progress, to more “modern” outlooks and conceptions of the world that favor development. (For an account of how “traditional” culture was used in schools to promote a national identity, see Coe 2005.) Many scholars have argued that the explicit goal of changing mentalities of both colonial and postcolonial educational systems veiled other goals: to train the population for acceptance of and participation in the market economy and the authority of the state apparatus (Atangana 1996; Martin 1982).

Fulbe participation in public schooling was very low until Cameroon’s Fulbe president was succeeded in 1982 by a Christian southerner, who ended preferential treatment of Fulbe within the state power structure (Iyébi-Mandjek and Seignobos 2000). At that time, Fulbe authorities

began to encourage rather than discourage participation in public schooling, and Fulbe enrollments grew (Santerre 1982b; Tourneux and Iyébi-Mandjek 1994). Fulbe children who attended public school also attended Qur'anic schooling, and such "double schooling" was considered by many to be problematic. Non-Muslim public educators and researchers argued that Qur'anic schooling interfered with students' social, cognitive, and linguistic development by teaching children a passive, nonanalytic learning style and an ethnocentric and superstitious worldview (Santerre 1982a; Tourneux and Iyébi-Mandjek 1994). Many Fulbe claimed that public schooling interfered with children's social, moral, and spiritual development. Time spent in public school was time not spent studying the Qur'an or learning tasks and responsibilities from one's father or mother. Even parents who sent their children to public school expressed concern that children learned things at school—*nasaaraaji* ("things of the whites/people from elsewhere")—that were counter to the norms of Islam and Fulbe culture (Santerre 1982a; Tourneux and Iyébi-Mandjek 1994). Despite the widespread perception of conflict between the traditions, many people noted that there were similarities. As one mother in my study said, at both schools "children have to pay close attention, work hard, and memorize what they need to know."

Rote Learning Reconsidered

In Qur'anic and public schools, rote learning dominated. The primary objective of nearly all lessons was the verbatim memorization and error-free oral rendering of a text in a nonnative language. To this end, teachers modeled speech, and children imitated, rehearsed, and performed it from memory, with little or no comprehension of its meaning. In the course of my comparative study of public and Qur'anic schooling in Maroua, I came to reframe rote learning as guided repetition, a complex and context-sensitive practice for teaching and learning (Rogoff et al. 2007). I identified four phases in guided repetition activities—modeling, imitation, rehearsal, and performance—each of which entails particular rights and obligations for both teacher and student. The guided repetition model emerged from my data analysis, as I came to recognize that public and Qur'anic school activities shared not only the same basic lesson objective but also the same

overall sequential structure (for international comparisons of lesson structure, see Alexander 2000 and Anderson-Levitt 2002).

In both schooling traditions, the perceived appropriateness of guided repetition was rooted in similar ideologies of child development and learning. Parents, Qur'anic teachers, and public school teachers all described children in early and middle childhood as excellent and eager imitators and memorizers. Learning through imitation, repetition, and memorization was believed to be well suited to a child between age 6 and puberty, for his or her memory was still clear of distractions and highly impressionable. Parents and Qur'anic teachers spoke of the "virgin memory" (*taaskaare wuule*) of children of this age, while public school teachers referred to their minds as *tabulae rasae*. Skills and knowledge—or bad habits and incorrect understandings—acquired in this period were believed to be more likely to take root and endure than those introduced at a later age. Thus, according to Qur'anic and public educators, guided repetition was the right approach at the right time.

While guided repetition was used to teach Fulbe children both Qur'anic recitation and French oral expression, it was accomplished in different ways and for different reasons. Some differences were obvious. For example, in Qur'anic school, children learned to recite a sacred text, the faithful reproduction of which was not just the lesson objective but also the long-term educational goal. French language lessons, on the other hand, revolved around the animated performance of a mundane conversation, a carefully selected and scripted subset of linguistic forms, the mastery of which was intended to project the child into generative competence in French. Other differences were less obvious but proved more illuminating. Close, comparative analysis of these two guided repetition activities revealed distinctive interactional patterns in these two activities, and these patterns could be linked to the very different ways of being in the world that children were expected—or at least hoped—to learn through Qur'anic and public schooling.

Distribution of Authority

One of the most important dimensions of difference concerned the distribution of authority to teach. In both schooling traditions, the teacher

was the primary modeler and, in the immediate environment, the highest authority on how a text should be rendered. The teacher enlisted the help of children in both settings, but in different ways. Interviews with teachers and parents revealed that these differences in how and how much authority was allocated to children to function as peer teachers (see also chapter 8, this volume) were related to participants' beliefs about how children learned, how the text should be treated, and how participants should relate to one another.

In the public school classroom, any student was a potential modeler. While the teacher often relied on a few students he knew to be more capable (many of these children were repeating the first grade), any child who volunteered to model was likely to be given the opportunity to do so. Moreover, children were frequently asked to assess the renderings of other children and to identify and correct errors. The teacher allocated the authority to model, assess, and correct on a turn-by-turn basis. Transcript 1 (table 9.1) illustrates some of these practices.

Public educators believed that children were more interested in other children than they were in the teacher and that teachers should capitalize on this interest. Having peers provide modeling, assessment, and correction was considered good pedagogical practice because peer talk was assumed to be more salient and more memorable for children. Moreover, teachers' elicitation of peer correction and assessment were designed to introduce an element of fun and/or competition and to get children to use French for authentic communicative purposes, both of which were believed to be motivating for children. Practices of distributing authority were also informed by an ideology of equality and equal access. I was told by several teachers that all children were potentially good students and competent speakers of French, and that it is up to the teacher to bring out that potential in each and every child by giving multiple opportunities to play different roles, including that of an authority on academic correctness. (For an analysis of similar evaluation practices in Japanese classrooms, see Benjamin 1997.)

Qur'anic teachers and parents saw no place for peer teaching in the transmission of Qur'anic knowledge. Sacred knowledge and the authority it bestowed were the result of years of devout study (Eisemon 1988; Riesman and Szanton 1992); thus, the role of expert could not be transferred from day to day, much less turn by turn. Good instruction entailed the

Table 9.1. Transcript 1: Rehearsal of Dialogue 6 *Le cadeau*

1	S:	BONJOUR MON FILS J'AI UN CADEAU POURQUOI? Hello my son I have a gift why?
2	T:	((snaps head up from looking at book))
3		UN CADEAU POURQUOI? A gift why?
4	T:	C'EST COMME ÇA? Is it like that? ((makes sweeping gesture with right hand))
5	Class:	NOOOON Noooooo
6	T:	((smiling)) ALORS, C'EST COMMENT? So, how is it?
7	Ss:	[J'AI UN CADEAU POUR TOI. I have a gift for you.
8	Ss:	
9	T:	((smiling)) VOILA. C'EST ÇA. There. That's it.
10		BONJOUR MON FILS J'AI UN CADEAU POUR TOI. Hello my son I have a gift for you.

S = Student, T = Teacher, CAPS = loud, *italics* = emphasis

reverent and individualized transmission of Qur'anic texts to the novice by someone with the religious knowledge and authority to do so. In many schools, a few students who were older and more advanced in their studies were designated as assistant teachers, and they were authorized to supervise children as they rehearsed, to correct their errors, and to administer punishment. Other children were not allowed to occupy themselves with the learning of their peers, although they often did when left unsupervised. Children were still learning the Qur'an and still learning to treat it with proper respect. So there was a significant risk that, either by mistake or by design, a child might model an incorrect rendering or fail to correct an error made by another child.

Table 9.2. Transcript 2: Modeling-Imitation of Verses 1–4, chapter 102 At-Takathur

1	T: Alheekum takasuru	5	T: Hatta zurtumin maqaabira
2	S: Alheekum takafuru	6	S: Hatta zurtu min makaabira
3	T: <i>Alheekum takasuru</i>	7	T: Kalla sawfa taalamuuna
4	S: Alheekum taka(s/f)uru	8	S: Kalla sawfa taalamuuna

To recite the Qur'an incorrectly was to turn it into something different from what was revealed to the Prophet by God. Thus, in principle, any error had to be corrected for the sake of the reciter, for anyone listening, and for the Qur'an itself. Teachers usually responded to children's recitation errors by rendering the whole verse as it should have been recited, with no particular emphasis on the error, as transcript 2 (table 9.2) illustrates (I provide no translation of the Arabic because neither teacher nor student understood its meaning).

Qur'anic teachers never imitated a child's error, unlike public school teachers, who routinely did so (as in line 3 of transcript 1). Other children sometimes did this, but only when unsupervised, for a teacher would have punished such blasphemous behavior.

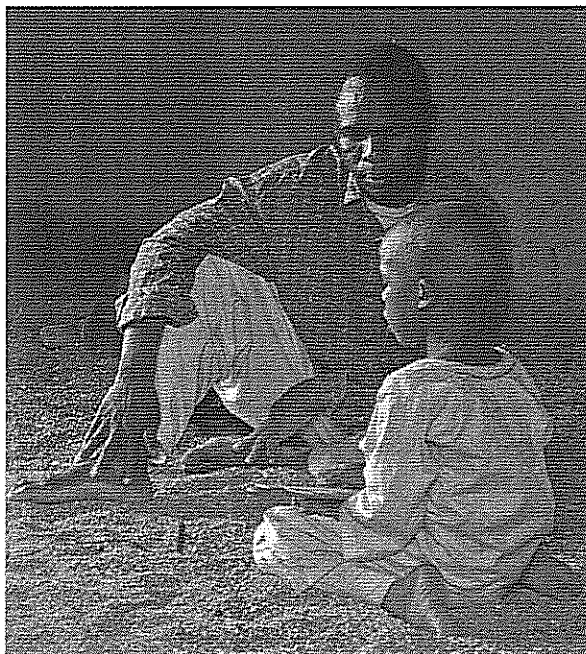


Figure 9.3. Imitation phase in a Maroua Qur'anic school (M. Moritz photo)

Outcomes of Learning by Heart

In the two schooling traditions, different moral and intellectual outcomes were desired, and guided repetition was accomplished in culturally specific ways. Qur'anic schooling was meant to socialize children into reproductive competence in Arabic and into Fulbe and Muslim values of self-control, respect for religious authority and hierarchy, and submission to the word of God. The practice of guided repetition in Qur'anic schools emphasized strict discipline, the authority of the teacher, and reverent renderings of the text. These ways of producing and relating to Arabic texts were essential to competent participation in many community activities, including prayer, religious ceremonies, and healing practices (Moore 2008). Public schooling was meant to create Cameroonian citizens, individuals who could speak and write and think in French as was required in the social, civic, and economic activities of a modern, democratic nation-state. Guided repetition as practiced in the classroom was characterized by more peer interaction, liberal manipulation of the text, and greater fluidity in the roles of expert and novice.

Participation in both Qur'anic and public schooling entailed the use of a nonnative language, and guided repetition was believed by teachers and parents to be essential to second language learning despite its low yields in both kinds of school. In the first few years of Qur'anic schooling, children were expected to learn to reproduce Arabic texts orally and without comprehension, and nearly all Fulbe children learned to do this, albeit at highly varying rates. Some stayed in school long enough to learn to transcribe Arabic texts. A very few "finished their Qur'an," pursued advanced studies, and learned to understand Arabic. Advanced Qur'anic textual knowledge and communicative competence in Arabic were highly valued in the community, and high achievement was widely believed to be God given, a sign of blessing. However, a student who stopped after memorizing a few chapters of the Qur'an was not considered a failure because he had learned as much as he needed to function as a Muslim in the eyes of the community.

In public schooling, the official expectation was that children would quickly learn to understand and express themselves in simple French. However, only a small minority of Mr. Garza's students achieved this level (including Halima and another of the seven focal children in my

study), and most who did were in the first grade for the second or third time. Teachers expected such outcomes in classrooms that were overcrowded with children who had little or no prior experience with French, so they focused on teaching as many children as possible to produce French forms correctly and in ways that were appropriate for the ongoing classroom activity. Maroua teachers described these pedagogical goals as both realistic and foundational to all subsequent French language development and academic achievement more generally. Teachers knew that most children would not build on this foundation enough to complete elementary school, but that did not diminish their belief in the value of guided repetition.

Repetition and Change

Understanding that schooling practices are not only culturally and historically rooted but also dynamic is key to an anthropological perspective on learning in schools. Throughout this chapter, I have used the ethnographic past because schooling traditions, like any other tradition, are not static. The educational landscape in Maroua might already be quite different from what I found at the turn of the millennium. Change was in the air when I did my fieldwork, and people's accounts of and responses to change provided additional insights into their ideologies concerning children, learning, and schools.

At the time of my study, there was a growing movement to "modernize" Islamic education in the region. Innovations included collective instruction, instruction in nonreligious subjects, and teaching Arabic both in and out of the context of the Qur'an using techniques that resemble those used to teach French in the public schools. In interviews, Fulbe expressed ambivalence about or even opposition to these innovations. A common objection was that collective instruction could not assure the mastery of each text by every child before the next text was introduced, thus putting some children at risk of reciting with error. Another widespread concern was that treating Arabic "just like any other language" and teaching it to young children who had not yet memorized the Qur'an effectively desacralized the language of the Qur'an and undermined the development of respect for the "Word of God" and the social order in theocratic Fulbe society.

Public education was also undergoing "modernization" at the turn of the millennium. In 1997, Cameroon's Ministry of Education introduced "the new pedagogical approach" (*la nouvelle approche pédagogique* or NAP) (Ministère de l'Éducation Nationale 1998). Reformers criticized the transmission models that dominated Cameroonian education, claiming that practices such as rote learning inhibited the development of creative and critical thinking, skills that were necessary for the individual's—and the nation's—successful participation in the modern world (Macaire 1993; Ministère de l'Éducation Nationale 1998). NAP was a more constructivist approach, with the teacher acting less as the source of all information and more as a guide for the student. Maroua teachers considered NAP inappropriate for the early grades (and the rest of the elementary cycle, according to some) because children were not believed to have sufficient competence in the linguistic and behavioral codes of the classroom to take so much responsibility for their own learning.

Another change in progress during my fieldwork was the emergence of guided repetition as a new practice for leading children into the telling of Fulbe folktales (Moore 2006). In addition to telling folktales to an audience of women and children, expert tellers (usually older women) were explicitly teaching folktales to children, and children were using guided repetition among themselves to teach and learn folktales. Child-child folktale socialization often gave rise to stories that did not fully conform to conventions of the oral tradition, such as blending two or more folktales into one, or including real people and places and modern elements like motorcycles. Moreover, such interactions often took place during daylight hours, a violation of the traditional restriction that folktales are told only at night. Several older children told me that they had taught and learned folktales at Qur'anic school when the teacher was not present, and such sites of clandestine peer socialization may have been where the diffusion of guided repetition into the folktale domain began.

The emergence of this new model of folktale socialization was contemporaneous with increased participation by Fulbe children in Qur'anic and public schooling,⁴ and it seems likely that there was a relationship between these trends. It may be that Fulbe women, concerned that children busy with their studies were no longer immersed in folktales as in the past, began using a familiar and effective practice for teaching other kinds of oral texts to prevent the loss of the folktale tradition. The innova-

tive use of guided repetition for teaching and learning folktales may have also reflected shifting beliefs and expectations among adults and children regarding the role of younger children in language-centered activities. In guided repetition interactions with adults and with their peers, young children took more vocal, active roles in an activity in which formerly they had played a more passive role until puberty or later. Thus, the folktale tradition was being both sustained and transformed by guided repetition, as children assumed new roles and created new narratives.

Comparing (Learning in) Schools

This chapter opened with a description of the kind of school day that is experienced by millions of children around the world, the sort of schooling practice that is widely deplored but poorly understood by Western researchers and educational reformers. In my study of Qur'anic and public schools, I sought to understand how and why rote learning was done in these two distinct cultural contexts where teaching and learning occurred mostly in nonnative languages. From my ethnography of schooling in this community came the concept of guided repetition. This concept helped me recognize and analyze similarities and differences between the two schooling traditions with respect to teaching and learning practices and the ideologies that informed them. This, in turn, helped me understand the significance of rote learning in this community, its staying power in the face of reform efforts and low educational yields, and its diffusion beyond the schools. In its different forms, guided repetition was believed to play an essential role in children's development of skills and orientations that were fundamental to being and becoming Fulbe, Muslim, and Cameroonian.

In examining the double schooling experience of Halima and her peers in Maroua, we find similarities in practice and ideology between two kinds of schooling that are often contrasted as Western versus non-Western, modern versus traditional, secular versus religious (for a critique of these dichotomies, see Stambach 2004). Both Qur'anic schooling and "Western-style" schooling have spread all over the globe, bringing with them cultural constructions of learning in/and childhood that differed from many practices, values, and beliefs of the communities in which such schooling was adopted or imposed. These schooling traditions have

created a "more uniform experience of socialization than in the past" (Anderson-Levitt 2005, 998), but at the same time, schooling is experienced, appropriated, and transformed in different ways in different cultural contexts (Anderson-Levitt 2003). In studying both uniformity and variation in the organization and meaning of schooling cross-culturally, anthropologists have provided important insights into schooling and school learning as social and cultural processes and increased our understanding of how children become cultural beings through their participation in schooling. These contributions come not only from the production of rich ethnographic accounts of a particular kind of schooling in particular communities at particular times, but also from comparisons across individuals, time, space, and schooling traditions.

A Note on Methods

In my study, I combined ethnographic study of the schools and the community with a video-based longitudinal case study design. The study built on my previous work in the region as a researcher (1996 and 1999) and as a Peace Corps volunteer (1992–1994), as well as the extensive research conducted by other scholars on the Fulbe and their language, northern Cameroon, and public and Qur'anic schooling in the region and beyond. In Maroua, I did many hours of observation in both types of schools, as well as participant observation in the homes of Fulbe friends and acquaintances. I hung out with the public school teachers during recess and grading periods. I consulted with local healers who used Qur'anic texts in their remedies. I attended sermons by local Muslim scholars, and I sat in on classes at the provincial Teachers' College. I participated in and documented school events like Youth Day and religious celebrations such as the Feast of Ramadan. I collected secular and Islamic educational materials that were locally available, including textbooks, teachers' guides, local school district reports, booklets on Islam, and audiotapes of sermons by well-known Muslim preachers.

As exhaustive and exhausting as this list of research activities may seem, the case studies were the most labor-intensive part of the study. I tracked seven 6- to 7-year-old Fulbe children over the course of their first year of public school, video recording them at monthly intervals at public school, Qur'anic school, and home, for a total of 90 hours. I also collected,

photographed, or photocopied writings and drawings produced by the focal children during this period. Three Fulbe research assistants and I transcribed the video recordings, working first from audio lifts and then working with the video to refine and annotate the transcripts. Once video data collection was complete, I conducted interviews and video playback sessions with public and Qur'anic teachers, Islamic scholars, public education officials, and family members of the focal children. These sessions (which were audio recorded and transcribed) resulted in further annotations of transcripts and a collection of community members' metadiscursive remarks on home and school practices.

Making sense of all my field notes, transcripts, photographs, photocopies, and video and audio recordings was a long process that began in the field and, in fact, continues to this day. As I reviewed my transcripts and video, I created collections of what looked like the "same thing," be it a phase of a lesson or an error correction strategy. After grouping sequences that seemed to be instantiations of the same phenomenon, I sought to identify the features that made me judge them as similar, and this process led to refinement of my categories. The process of creating collections and refining my categories enabled me to identify patterns in pedagogical practice in public and Qur'anic schools, as well as the ideologies that informed them.

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Notes

1. Notable exceptions are the cultural psychologists Scribner and Cole (1981a, 1981b), who worked in Liberia and Daniel Wagner (1993), who worked in Morocco.

2. Davis and Davis (1989) discuss but do not compare in detail the two types of schooling.

3. There have been no surveys to provide exact numbers on Fulbe participation in public or Qur'anic schooling, in Maroua or elsewhere in Cameroon, and it is not

possible to determine this simply by looking at enrollment lists. In a survey of 140 Muslim parents in Maroua, Tourneux and Iyébi-Mandjek (1994) found that 100 percent sent their children (boys and girls) to Qur'anic school, 84 percent sent their boys to primary school, and 67 percent sent their girls to primary school. All Fulbe participants in my study asserted that Fulbe were participating more and more in public schooling, as did officials in the schools and in the provincial and division offices of the Ministry of Education. Participants also maintained that more Fulbe boys and girls attended Qur'anic school and for longer than in the past. Seignobos and Nassourou's (2000) count of Qur'anic schools in Maroua showed that the number had increased significantly since Santerre's (1973) study.

4. Judging by participants' retrospective self-reports and the absence of any mention in the extensive work on Fulbe folktales in Cameroon (Baumgardt 1988; Baumgardt and Goggo 2000; Eguchi 1984, 1993; Noye 1971, 1976), I conclude that guided repetition seeped into folktale socialization in the 1990s.

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Part III
LEARNING CULTURAL MEANINGS

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CHAPTER EIGHTEEN

CHILDREN'S LEARNING IN NEW SETTINGS

David F. Lancy

In most of the preceding chapters of this book, authors describe patterns of learning by juveniles that are rooted in long-term and relatively stable patterns of biocultural adaptation. In part V, we shift our focus. Wolseth, in chapter 17, provides a vivid case study of children—many from rural villages—learning to adapt to an entirely new ecology: the streets of a large city. This chapter uses a wide-angle lens to briefly examine the many new settings that village children find themselves adapting to. Those settings include schools that have barely taken root in the village, labor, urban streets, and the milieu of the insurgent band. These close-up snapshots provide background for the next section of the chapter, which revisits the six principles enumerated in chapter 1 and provides a wide-angle view of childhood today.

Children Learning in Classrooms

In the late 1960s, I had an opportunity to observe Kpelle children eagerly participating in the new school just built in their village with American aid. However, the pupils' near zero knowledge of English, which was the language of instruction, posed a daunting challenge, compounded by the facts that there were "no books in Kpelle homes to learn from, no library, no *Sesame Street*. Parents, almost all of whom are illiterate, [could not] teach their children what they are expected to learn in school" (Lancy 1975, 378). And the outcome was predictable as eager pupils became frustrated "school leavers," a phenomenon repeatedly documented around

the world (Juul 2008, 153; chapter 9, this volume). At the Gapun village school in the Sepik region of Papua New Guinea, Kulick and Stroud (1993) found that children "learn very little during their first two or three years . . . due . . . to their inability to cope with instruction in English. . . . Outside of school . . . literacy skills are almost never used," and after leaving school at age 14–15, "many of these young people may never read and will almost certainly never write again" (32).

In Chillihuani village in the high Andes, where hamlets are dispersed over a valley running from 3,800 and 5,000 meters, children's attendance at school is limited by the harsh climate and the great distance they must walk. The monolingual Quechua children struggle with Spanish as the language of instruction, and the classroom is so overcrowded, many must sit on the floor. In spite of a sympathetic teacher locally, Bolin (2006) notes, generally, Indian children suffer harassment and other forms of abuse at the hands of *mestizo* teachers and students (85–87). Pygmy schoolchildren in Africa are harassed and bullied by children from more powerful Bantu tribes, and Central African government officials speak of them with evident racism and contempt. The obstacles they face mean that, according to a sympathetic teacher, they "sometimes take three to four years to complete a single year of normal schooling" (Raffaele 2003, 132). In Bangladesh, village children begin schooling quite late, having to overcome parental resistance, and their attendance is erratic. Hence, by adolescence, the average student has completed only three years of education (Nath and Hadi 2000).

It is quite common for parents to withhold their children from school or prevent them from doing homework, preferring them to seek employment for wages and/or do housework (de Oliveria 1995, 260). But families may hedge their bets (Bock 2002) and fund schooling for at least some of their children. In Port-au-Prince,

Ancillary school fees (for books, uniforms, and other supplies) are sufficiently high as to prohibit most poor households from sending all of the family's children to school, despite the fact that primary education is free and compulsory for all children in Haiti. As a result poor families are compelled to make painful decisions about which children will attend school and which will be turned out onto the street to work and thus contribute to the household income. (Kovats-Bernat 2006, 108)

Conflicts between parental and school expectations are legion. Khmer parents can't understand why teachers ask for their "support" but then reject corporal punishment as the best means of obtaining better performance from their children (Smith-Hefner 1993, 139). On Pulap Island (Micronesia), the school atmosphere does mirror village values, but that is not necessarily helpful: for example, "the atmosphere at the school is very lax and permissive . . . cupboards and shelves of the classrooms are in disarray . . . recess lasts two or three times the designated length" (Flinn 1992, 51).

For the forest-dwelling children of the Shipibo tribe in lowland Peru, schooling leads them to a dead end. Occupied with inscrutable classroom lessons, they aren't learning from their environment or community members. They forego the benefits of traditional Shipibo culture, yet they learn so little in school, they carry to town no employable skills (Hern 1992, 36). Because the common folk theory is that children learn best on their own, villagers do not take pains to *teach* the knowledge and skills the children are missing out on (Godoy et al. 2007). In at least one case documented by anthropologists, the Cree did not even take the trouble to change their foraging trips to the weekends to permit the weekday students to tag along and learn to forage. "By the time they finished their schooling, they had become foreigners to Cree tradition, not only by failing to acquire skills and knowledge of the land but also by lacking an appropriate attitude for life on the land. Thus, formal schooling led to the weakening of the existing social system" (Ohmagari and Berkes 1997, 207).

In spite of poor prospects, it is usually the children who initiate and persist with school attendance. If the alternative is lugging around a cranky baby brother or weeding the garden or sticking around home all day helping mother, then spending a few hours in the company of peers, even under otherwise adverse circumstances, might not seem so bad. Guinean students "preferred school to being home, where they would have to do chores . . . the big punishment was to be *bâni* (banished) . . . from school" (Anderson-Levitt 2005, 988). And sometimes a student *does* beat the odds and succeeds, in spite of the obstacles (Hollo 2009). In fact, in interviewing these very ambitious students, many mention the desire to use their education and improved prospects to assist their families (Leinaweaver 2008, 72).

However, the majority will be disappointed and become angry and cynical (Davis and Davis 1989, 141–2). International programs that

have for decades promoted universal primary schooling have created “an avalanche of failed aspirations throughout the third world” (LeVine and White 1986, 193), and schools find themselves “in the business of producing failures” (Serpell 1993, 10). Particularly in Africa, frustrated “school leavers” of the 1960s and 1970s became the brutal “child soldiers” of the 1980s and 1990s (Honwana 2005).

The “education gap” between those born into a society that invests in education and those from a society that lacks the cultural or real capital to create successful schools is no longer synonymous with the North-South divide in economic opportunity. The rise of private schooling and transfer of cultural capital (appreciating the importance of storybooks, preschool, homework, computers, exam preparation) to third world elites has replicated this gap in every city and country (e.g., Boum 2008; Falgout 1992; Goody 2006; Kipnis 2001; Stambach 1998).

Child Laborers

Although difficult to assess, it does appear that child labor is increasing at a rapid rate. Millions of children who, in an earlier era, might have been gradually, comfortably, even playfully making their way to adulthood now find themselves virtual slaves, putting in long hours of backbreaking or otherwise physically or emotionally abusive labor. The rise reflects the fact that, in much of the world, carrying capacity has been exceeded and rural families no longer have enough land to support all the surviving children. In an ethnography of the squatter community of Baan Nua in Thailand, Montgomery (2001) found that residents had been forced to relocate because of crowding in their rural homeland. Baan Nua parents find that the best source of income is the prostitution of their children, nearly half of whom had been so employed (Montgomery 2001, 72; see also Rubenson et al. 2005). A second factor is that open markets force producers to pay the lowest wages possible, and children are often as productive as adults but at much lower cost. Mixtec villagers cannot all make a living off the limited amount of arable land, especially to meet new expenses like electricity, manufactured clothing, and taxes. Hence families now participate in an annual migration to the agribusiness-controlled croplands (e.g., tomatoes) in other regions of Mexico and in the United States. The output

of a child as young as 8 years old is comparable to that of an adult, and both are paid the same 27 pesos a day (Bey 2003).

In some respects, the Baan Nua children residing with family and Mexican children working alongside their parents are relatively “fortunate.” They at least enjoy the protection and guidance of family. In much of West Africa, child slavery is rampant, for example. “In the large Adjame market of Abidjan, Côte d'Ivoire, investigators discovered a ‘maid market’ wherein young girls were being bought and sold from a ramshackle, corrugated iron, and wood shack” (Bass 2004, 149). This “maid market” is rooted in traditions where poor rural families donate surplus children to better-off urban relatives (Leinaweaver 2008, 60). The girls, “little nieces,” serve as maids and in theory have access to improved opportunities, especially improved schooling. However, just as the kin ties may be fictive, the entire promise of “advancement” may be illusory (Jacquemin 2004).

This review could be extended almost indefinitely (Lancy 2008a, 99–105), but what can we say about *learning*? Two things seem self-evident. First, children who are removed from the traditional village setting are *not* learning the panoply of skills, concepts, and expressive culture that construct lifelong membership and survival in a viable *community*. Second, they are employed in the most rudimentary, unskilled, and dangerous jobs where there is little opportunity for learning or *development*. The most comprehensive ethnography of rural children as *laborers* was carried out by Olga Neiuwenhuys (1994) in India's Kerala state. Villagers have two primary sources of income, the fabrication of coir matting (women) and fishing (men). Several things are clear from her analysis. First, children as young as 3 years old are employed. Second, without children's labor input, families could not make ends meet. Third, the skills learned are rudimentary, and girls are kept from learning the more advanced skill of spinning so that they won't be able to compete with the women.

Immigrant Children and Their Families

Throughout this work, children's great capacity for learning and their ability to adapt to an enormous range of cultural conditions have been displayed. As bleak as these contemporary scenes are, it would be remiss on our part not to acknowledge the strength and resiliency children show

in adverse circumstances. Kenny (1999) found that Brazilian children “acquire a certain amount of power or confidence in identifying and navigating the social world.” While a mother “felt paralyzed when confronted with the bureaucracy of the local health clinic or municipal office . . . and rarely ventured beyond the entrance to the favela,” Kenny noted, “children hop on buses and ride them for free, know[ing how to] hustle . . . and spend the better part of the day in [an] urban, informal labor market, amid the dangers, excitement, sights, sounds, and stimuli of life” (379).

The same skills that children apply toward learning the culture of the village can be equally effective in the city, as this example from urban African American communities illustrates. As the afternoon wanes,

small-drug transactions heightened, and the local “audience” of unsupervised children . . . grew. . . . [One 14-year-old] remarked: “You ought to be out right now. This is when all the peeps [people] is hangin’. *You learn about the streets now. . . . It’s good for a young brother to know the streets. You see everybody, styling and profiling. All the peeps see you. If you want to be seen, this is the time to be out.*” (Burton and Graham 1998, 16, emphasis added)

Children’s adaptability is also revealed in immigrant and refugee families. Orellana’s (2001) study of Central American immigrant families in Los Angeles demonstrates how dependent they are on children’s rapid learning of the local culture:

[P]arents in Pico Union take it for granted that children should use their English abilities . . . to translate for them. Furthermore, there are complex English literacy demands for daily life in Los Angeles . . . and parents may need children’s help to carry out daily tasks. . . . In many ways *they* are the experts, and their ability to engage successfully with the complex demands of modern life matters for their families’ well-being and integration into U.S. society. Children’s work facilitates families’ access to information and resources. (378)

Many young people migrate without their families (Uehling 2008), and they may well end up on the streets. Clearly, the family structure remains important as the foundation for truly successful adaptation. Just as children are able to assist families, so too, families play a critical role

in ensuring that children succeed in school. Specific cases of successful migrant adaptation to the “information society” include: Vietnamese “Boat People” reading to preschoolers (Caplan, Whitmore, and Choy 1991); Central American immigrant parents ensuring that children avoid negative peer influence (Suarez-Orozco 1989); Punjabi families struggling to prevent children from becoming “typical American adolescents” (Gibson 1988).

Escape to the Streets

An extremely thin line separates “street kids” from “poor kids.” The Haitian children who are *not* sent to school may be much better off, at least in the short run. Kovats-Bernat’s (2006) account of street kids in Port-au-Prince is echoed in numerous recent ethnographies (Evans 2004; Hecht 1998; Kenny 2007; Kilbride, Suda, and Njeru 2000; Márquez 1999). He finds that hustling in the city is relatively lucrative. Children can expect to make “over three times the national daily wage through street labor” (Kovats-Bernat 2006, 108). Initially they may share much of their income with family. But when their contributions are not appreciated (consumed in alcohol by a parent), or worse, they are abused for not bringing home enough, they are likely to spend more and more time with their street family and less and less “at home.” Kenny (1999) asserts, “Living with one’s family can be one of the riskiest locations for a child . . . where abuse is more abundant than food” (384). This story from a young Brazilian woman is typical:

I couldn’t stand to live at home anymore. My mother liked to hit us, she wouldn’t let us go out, we didn’t have any freedom. . . . [M]y mother wouldn’t let us stay home one single day, we had to work. (Campos et al. 1994, 323)

Still, many children do continue to share their earnings with and visit, even when the family is in a distant village. They do so as a form of social security. In the event of an injury, illness, or the need to escape apprehension for a crime, they have a refuge (Conticini 2007, 87; Kovats-Bernat 2006, 109). Some proportion of street kids may return nightly to their families in a squatter settlement, and indeed, their economic activity



Figure 18.1. Bookmark seller, Cuernavaca, Mexico (D. Lancy photo)

may be managed by a parent or other family member (Lancy 2008a, 360; Sinervo 2009). However, the majority of children studied by anthropologists live entirely in public.

Street kids are more likely to be male, because girls are both more useful and valued at home and are simultaneously more vulnerable and

likely to become "damaged" in the street (Kilbride et al. 2000, 138). And cohorts of street children tend to be unisex. Children who enter the street unaccompanied quickly become attached to older and more experienced peers who readily socialize them to the culture, and that includes a designated *territory*. In the large Kenyan town of Makutano, the children's territory is well known:

characterized by rubbish, open sewers, mud, and crime . . . in every way a . . . dangerous area to most inhabitants. To the children, however . . . it is their home, it is a safe, reassuring area buffered away from the dangers of the adult world. (Davies 2008, 320–1)

Children also learn the street slang, terms that only they use and which apply to elements of their culture (Davies 2008, 323). They sport a distinctive wardrobe, such as oversize coats to store or hide their "stuff" (Davies 2008, 324). Another universal aspect of the youth culture is glue-sniffing, which is replaced as a pastime in older children by the use and sale of hard drugs (Márquez 1999, 41).

Along with drugs, promiscuous sex is considered a form of play (Concicini 2007, 88). Resources may be shared, and older, more experienced children look after the "chupapegas . . . the youngest . . . living on the boulevard" (Márquez 1999, 40). These relationships may be of considerable standing and are legitimated when children refer to each other as spouses or siblings (Kilbride et al. 2000, 82–83). On the down side, children are also victimized by the police, merchants, the public, and especially other children. In Port-au-Prince, children engage in *lage domi*:

ritualized sleeping wars . . . considered by street youths to be a final solution to long-festering animosities that repeatedly emerge. . . . The final violent act is usually a blow . . . while the victim sleeps. . . . Nadès received a slash to the bottom of his feet, which he avenged by burning the foot of his tormentor with molten plastic. (Kovats-Bernat 2006, 130–5)

Intervention programs that remove children from this life-threatening environment have not been conspicuously successful (see chapter 17, this volume). Notable failures are those that "restore" children to the families that drove them away in the first place (Hecht 1998, 110). Russia has

2.5 million street children; however, except in a crisis, those studied by Fujimura (2003, 2005) generally spurn residence in public orphanages in favor of the friendships, freedom, and money they find in the street. Educational and vocational programs are also unattractive. One of Márquez's informants quit the bakery job a nongovernmental organization (NGO) had arranged because he could earn in a day what the bakery paid per week. "He also worked with an NGO for a brief time but found the routine of picking up paper for recycling very boring and skipped work whenever he felt like it" (Márquez 1999, 56).

The remarkable fact is that the culture of the streets also features a sort of "chore curriculum" (see chapters 6, 7, and 17, this volume). Six-year old Reinaldo earned enough to support his mother and six siblings from tips earned guarding parked cars while their owners patronized local bars and restaurants (Kenny 2007, 76). The very young can also learn to become effective beggars:

Begging styles typically include not only verbal requests but also holding a hand out, pouting, exaggerated smiling, and less frequently, threatening gestures with the face and hands. . . . [S]treet children successfully beg from a full range of givers. . . . Street boys report that children can beg up to the age of 14 years, when they no longer look "innocent." (Kilbride et al. 2000, 70)

Because there is vertical differentiation in the street economy, older residents are willing to train new recruits (Wolseth 2009), teaching them "the tricks of the streets: how to get more money while begging, how to break into cars, how to make master keys" (Márquez 1999, 64). Other sources of money or gifts of food include scavenging for discarded plastic bottles and charcoal to sell, and carrying luggage or running errands (Davies 2008, 318). Children graduate to more lucrative and sophisticated means of earning a living, "forming discrete occupational geographies that make up the nodal points in the networks of the urban economy" (Frankland 2007, 43). Informal sales through unlicensed marketing range from children's toys to hard drugs. Street sellers may be well dressed and fluent in several languages. They may serve as "pilots" or guides: *bayaye* act as intermediaries between the customer and the vendor, leading the way to the market stalls and . . . as guides to sightseers, or directing European

sailors and soldiers to prostitutes" (Frankland 2007, 43). Children may thus earn significant sums, finding that they must pay "taxes" to various mafia-like enforcers and police and engage in informal banking to shelter their fortunes (Conticini 2007, 86).

Sex work seems also to be graded. Girls, whose money-earning options are more limited than those for boys,¹ exchange sex for food and small gifts with fellow street kids. When eventually they make themselves available to tourists, "they do not have fixed prices for 'services,' do not identify as sex workers, and do not describe what they do as an 'occupation'" (Kenny 2007, 85). Once they become prostitutes, they may earn more than their male counterparts who are occupied as street sellers and porters (Conticini 2007, 85).

Eventually, street "kids" age out. In Caracas, older youths earn the label *malandro*. These youths take pains to dress well and blend in, earning a living from theft. They "would not be seen as 'street children' causing mischief, but as *malandros* committing serious transgressions. They have outgrown their cute rascal image" (Márquez 1999, 53).

Child Soldiers

There is considerable overlap in the career of a street kid and a child soldier. The popular impression is that child soldiers have been abducted from intact families in rural villages, and that certainly accounts for a significant number, especially in Uganda (Mawson 2004, 133). However, child soldiers seem to be particularly prevalent where the birth rate is high, leading to a very youthful population, and the death rate of adults is high (due mostly to HIV/AIDS), leading to a disproportionately large orphan population (Case, Paxson, and Ableidinger 2004). The poor quality of schooling, noted earlier, and strained relations within families are also contributory. According to Rosen (2005):

the lack of education and job opportunities ensured an endless supply of . . . unemployable, and alienated youth. Sierra Leone was, and still is, a country filled with unwanted youth. Some portion of this youth were always available to be recruited into any setting—legal or criminal—that offered a hint of economic opportunity. (80)

Furthermore, the experience of life in an urban gang is in many ways indistinguishable from that in a “rebel band.” As described by Campos and colleagues (1994), in the city of Belo Horizonte,

the *turma* is a close-knit group that provides youngsters with support, companionship, and protection. . . . [N]ew members have to steal and prove their willingness to abide by group norms . . . [and] norm breakers are punished, with the ultimate punishment being . . . a ritual involving violence, torture, and gang rape. (324)

Contrast that with Honwana’s (2006) findings about the initiation and lifestyle of an Angolan child soldier:

[According to the soldier,] “We all had to drink two spoons of blood each. They told us that this was important to prevent us from being haunted by the spirits of the people we might kill.” . . . [T]ogether with strenuous physical exercise, manipulation of weapons, and the imposition of strict discipline, these practices represent a powerful ritualized initiation into a culture of violence and terror. (62–63)

There is evidence that those who would create juvenile militias recruit directly from urban gangs (Lancy 2008a, 301–2), and demobilized child soldiers readily transform into *mareros* or gang members (Dickson-Gómez 2003, 345). The “education” of a child soldier is, in fact, mostly indoctrination. After all, the current weapon of choice, lightweight, inexpensive assault rifles, “can be carried, stripped, and reassembled by children aged ten years or younger” (Dickson-Gómez 2003, 328).

As we saw with schooled children, the setting in which child soldiers find themselves is noteworthy for what they are *not* learning. “The exaggerated discipline of the guerrilla camps left little room for male adolescents to develop concepts of autonomy and control. They were not given a chance to practice and learn how to be campesino adults, dedicated to subsistence agriculture” (Dickson-Gómez 2003, 344). In Mozambique and Angola, Honwana (2006) notes that communities “are still dealing with the serious disruptions . . . in the life course of young people,” that the wars “left a deep moral crisis,” and that “the initiation rituals and systematic preparation of young people to become responsible adults ceased. A whole generation was seriously affected” (43).

Our Six Principles Revisited

By way of conclusion, I’d now like to revisit the six general principles enumerated in chapter 1. Our first was that, relative to other species, the *length* of the period of immaturity is elongated due, at least in part, to the need for children to acquire the vast store of information that constitutes culture. In the 21st century, this principle is challenged by a drastic bifurcation of childhood (Lancy 2008b).

In the developed countries, childhood has become dramatically longer, at both ends. That is, anxiety about the child’s success in school has promoted an attitude—supported by somewhat dubious scientific evidence—that insists on early cognitive stimulation of the infant. There is a blurring of the distinction between the infant and child stages, brought about, for example, by the use of gestural language (“baby signs”) with preverbal children. At the other end of the spectrum, we have “children” remaining at home and continuing as dependents well into their 20s as they finish their education and launch careers. Scholars now label them “emergent adults” (Arnett 2004). By contrast, in developing countries, overpopulation and economic stress have created new conditions whereby children are expected to make an economic contribution at an earlier and earlier age. Kenny (2007) describes poor Brazilian communities where children as young as age 5 are employed producing “much of what Brazilians eat, wear, and sleep in,” and that “cacao, gems, minerals, soybean, and grape industries all . . . use cheap (children’s) labor” (2). Childhood ends almost before it has begun.

Our second principle is that the end points of learning are culturally defined. In the ethnographic record, one finds considerable variation in village “curricula,” especially when comparing pastoralist, forager, and farming communities. For at least the last 100 years, that variability has steadily narrowed. This has occurred because of the reduction in ways that people find to make a living. The population of foragers has shrunk dramatically, and hunting, for example, may now be accomplished with the use of a few tools (outboard motors, rifles) where aboriginal hunters may have used literally hundreds of capture techniques—which children would gradually master (Nelson 1972). A second change that has narrowed expectations has been the global spread of state-sponsored schooling. The content of the curriculum and the methods of instruction, incorporating

rote memorization, recitation, learning in a second language, an emphasis on obedience and conformity, and identical curricula for both sexes are just a few of the characteristics associated with schooling throughout the world. Today, “diversity” in learning references relative success in progressing through the hierarchical school system rather than variation in the skill set with which one enters adulthood.

Our third principle identified the universal existence of folk theories or ethnotheories embedded in culture that describe child development and the means by which society is to assist juveniles on the pathway to adulthood. Traditional views have been challenged by the spread of schooling. In particular, the *laissez-faire* attitude adopted by parents in many societies, accompanied by casual child-tending practices such as sibling care, are now seen as incompatible with the need to prepare children for school and monitor and support their learning of academic subjects (Deyhle 1991; Matthiasson 1979). There is also a growing gap between societies that have entered the demographic transition (Caldwell 1982) and elected to reduce fertility and those that have not. Goddard (1985) describes a poor community in Naples that had, historically, depended on the wages its children earned in shoe factories but where younger couples are electing to have fewer children and to send them to school rather than put them to work. By contrast, in Burkina Faso, high birth rates are maintained in spite of near starvation living conditions. The theory that drives this behavior is “every child is born with its own luck” (Hampshire 2001, 115), and parents believe they have little to contribute to the child’s success or failure.

Our fourth principle is that learning is a social process. In the communities studied by anthropologists, children learn from observing and interacting with others. In the 21st century, this is changing. For first world children, knowledge is increasingly packaged in one form of “media” or another. Significant others serve less often as role models and more often as didactic teachers or guides. Schooling, in which one’s primary associates are same-age peers, begins at an earlier and earlier age and persists through adolescence. The consequent increase in peer versus adult socialization is a source of scholarly and popular attention (Harris 2009). Schoolchildren still learn in a social context, but that context is an institutional one that is expressly organized to support their learning. For impoverished children who live and/or work outside the home and/or are orphans, learning is also still primarily social, but the cast of potential

teachers and role models has changed. Now the child has far less opportunity to observe and interact with a range of neighbors, siblings, and relatives and, instead, is primarily in the company of others of the same sex and nearly the same age—whether living in a modern (e.g., small, nuclear) family or a street family. First and third world children also encounter adults whose roles (teacher, coach, therapist, police, NGO outreach worker) vis-à-vis the child may be quite formal and even aversive.

Our fifth principle focused on the role of the child in taking the initiative to learn her or his culture. Granting children the autonomy to construct their own lessons and learn at their own pace works fine in the traditional village where life skills are practiced and displayed in public. The child’s observations, make-believe play, and repetition or practice of fragmentary skill components should lead eventually to mastery. Such “social learning” (chapter 5) has considerably less utility in the “information” society where making a living depends on the long-term acquisition of material that is essentially hidden from view and must be packaged and delivered by experts. On the other hand, in societies where there is rapid cultural change or radical disruptions in the traditional context (war, famine, immigration), children may be expected or required to take even more initiative to learn the “new” culture because traditional socializing agents do not have mastery of it.

The sixth principle identified children as playing two distinct roles. On the one hand, they are to play the role of child, a role partly scripted by society and partly by the child. Indeed, we can expect some degree of conflict between these two scripts. On the other, the child, again collaboratively scripted, occupies the role of an incomplete adult, an adult in the making. In the village, there is the tendency to assign greater value to the second role. The Baining claim to be ashamed rather than proud of their children. They discourage play and other childish behaviors, and they take pains to hurry children along in becoming mature social actors (Fajans 1997). In the information society where the period of dependency and learning has become greatly extended, children are treated as “cherubs” (Lancy 2008a, 2) and their childish, immature behavior is celebrated and prolonged via toys, birthday parties, and targeted media (Clarke 2008). In contrast to third world children risking life and limb, in the first world, children’s lives are increasingly constricted. We are so concerned about protecting their *future* prospects, we deny them the chance to *be*. A

study conducted in the United Kingdom, for example, showed a dramatic decline in the last 20 years in the number of unaccompanied children permitted to cross the street, go to the cinema, or use public transport (Qvortrup 2005, 8; see also Skenazy 2009).

For children in marginal communities on the urban fringe, neither role sits comfortably. Forced to work, they must relinquish the role of child, but the fact that they've become breadwinners for their families earns them "little increase in autonomy, power, or decision making" (Kenny 2007, 74). That is, their assumption of adult tasks, earning a living, caring for younger kin, and managing a household does not necessarily earn them the status and authority of an adult. The community may still continue to treat them as juvenile (Bissell 2003, 61).

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Note

1. Similarly, girls drawn into civil conflicts may have limited choices open to them. In the Liberian conflict, they mostly provided sexual services to the combatants (Utas 2005).

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