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WHAT DO CHILDREN DO WHEN THEY CANNOT GO TO SCHOOL?

ELENA L. GRIGORENKO AND PAUL A. O'KEEFE

We live in a world populated by more than 6 billion people.¹ Approximately 2.15 billion (39%) of them are children under the age of 18. Of these children, 1.89 billion (approximately 88% of all children) live in developing countries. In developing countries, children constitute approximately 39% of these countries' population. In more developed countries, this number is approximately 25%. One might ask why the word *approximately* appears next to these figures. Why not just count the people through their birth certificates? The answer is because it is virtually impossible: Every year approximately one third of all births (approximately 40 million births) are not registered. The overwhelming majority of these unregistered births take place in developing countries, raising the estimates of the number of children living there even higher.

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Moreover, population growth trends indicate that the situation will be even more dramatic in the future. The growth of human population has been, is now, and in the future will be almost entirely determined in the world's less-developed countries (Bureau of the Census, 1999). Ninety-nine percent of global natural increase (the difference between number of births and number of deaths) now occurs in the developing regions of Africa, Asia, and Latin America. Projections of the U.S. Census Bureau indicate that at the beginning of this century the numbers of deaths will exceed the numbers of births in the world's more developed countries, and *all* of the net annual gain in global population will, in effect, come from the world's developing countries. This projection means that, in the near future, even more children will be living in the developing world.

Here are a few other facts that set up the context of the following chapter (United Nations International Children's Emergency Fund [UNICEF], 2002). Between 1990 and 2000, the rate of infant mortality was reduced by 14% (from 94 to 81 per 1,000 live births), meaning that 3 million more children a year are now surviving beyond their fifth birthday than was the case a decade ago. However, there is a massive disparity in infant mortality between regions. The range of change is impressive: from 9 to 6 per 1,000 live births in industrialized countries to 180 to 172 per 1,000 live births in sub-Saharan Africa. The latter figure reflects, among other causes, the tragedy of the HIV/AIDS epidemic in Africa. Having survived, however, the majority of children in the world have to face other tremendous challenges. Approximately 30% of the children in developing countries (149 million) are underweight. In Asia, where more than two thirds of the world's malnourished children live, the drop in child malnutrition rates was relatively small, from 36% to 29%, whereas in sub-Saharan Africa the absolute number of malnourished children has actually increased. Throughout their lives, only about 82% of the world's population has universal access to safe drinking water and only about 60% have universal access to sanitary means of human waste disposal. Needless to say, most of those people who do not have access to safe drinking water and sanitary means of human waste disposal live in the developing world.

Most psychologists live and work in industrialized countries. Some of them do research and writing about children in the developing countries. Thus, most of what is known about child development has been observed, registered, and experimentally scrutinized on or with children growing up in industrialized countries, where almost all children go to school, help at home, and play in between. However, in 2000, only 82% of the world's children had universal access to basic (primary, lasting usually three to four years) education. In developing countries, the net primary school enrollment in 1998 was 60% for sub-Saharan Africa, 74% for South and West Asia, 76% for Arab States/North Africa, 92% for Central Asia, 94% for Latin America and the Caribbean, and 97% for East Asia and Pacific Islands. Note, how-

ever, that these figures do not reflect dropout and absenteeism rates, both of which can be as high as 40% to 50%. And, although precise figures are not known, only about 10% of children in developing countries make it through 10 to 11 years of study. Thus, although the majority of the world's children do experience at least some schooling, approximately 20% of them never go to school, and for the majority schooling is very limited. And of those who do go to school, the quality of schooling is extremely variable.

The main objective of this chapter is to survey the literature on "other than school" activities carried out by children around the world. We do not intend to survey after-school activities (i.e., the activities of children who attend school and then do something else—play, participate in sports, or do chores at home after school) of children who go to school. Here we are interested primarily in out-of-school children. What do children do if they are not enrolled in school? What competencies do their societies expect them to acquire, and how do children acquire them?

The chapter is divided into three sections. First, we discuss a developmental model of competencies and their mastery. Second, we summarize the literature on competencies in children living in nonindustrialized countries whose salient developmental tasks differ from those of their peers in industrialized societies. Finally, we argue for the importance of studying competencies in a wide variety of contexts in which children grow up. We state that the presented model is generic, and as long as the children interiorize models of successful life adjustment through developing competencies, they are able to transfer this model into new contexts and formulate new developmental tasks by detecting the key competencies to be mastered to adjust successfully.

CHILDREN'S COMPETENCIES: A DEVELOPMENTAL PERSPECTIVE

The concept of children's competencies has attracted the attention of many developmental psychologists (e.g., Cicchetti & Cohen, 1995; Cicchetti & Toth, 1995; Denham & Holt, 1993; Masten & Coatsworth, 1995; Waters & Sroufe, 1983). Defined as "possession of required skill, knowledge, qualification, or capacity" (*Webster's New Universal Unabridged Dictionary*, 1996), the concept of competency is characterized both by the breadth (ranging from skill to capacity) and the developmentally transient nature (required by a given developmental period, by a certain situation) of its meaning. Thus, the concept of competence covers a cluster of constructs related to successful (adaptive) functioning at a given age and in a given cultural and historical environment (Masten & Coatsworth, 1995). What is particularly valuable about this concept, from our point of view, is that it does not have an evaluative connotation. That is, unlike the ability–disability concept, the concept of competence does not have the connotation of the given; quite on the

contrary, it assumes that competence can be acquired. However, what matters is whether the available competencies are suitable for the management of a given developmental situation.

Although not well defined formally, a succession of competencies—the mastery of which is expected of a child growing in the industrialized world—is implicitly present in expectations of parents and teachers. It is commonly accepted that children who fail to meet these implicit expectations are of concern to the society and should be referred for evaluations and interventions (Masten & Curtis, 2000). Moreover, a rich literature addresses consequences of the failure to acquire developmentally required competencies: Failure to develop secure infant attachment has been found to be associated with higher risk for later behavior problems (e.g., Easterbrooks & Goldberg, 1990; Erickson, Sroufe, & Egeland, 1985); failure to master basic linguistic capacities is likely to correlate with later cognitive, social-emotional, and behavioral problems (e.g., Sameroff & Haith, 1996); failure to acquire adaptive peer-relationship skills is related to risk for poor social-emotional adjustment later in life (e.g., Cicchetti, 1984; Dodge & Murphy, 1984; Ladd, Huot, Thrivikraman, & Plotsky, 1999; Sroufe, 1979; Sroufe & Rutter, 1984); and failure to master self-regulation and socially accepted behaviors can result in later school adaptation and academic achievement problems (e.g., Parker, Rubin, Price, & DeRosier, 1995; Rubin, Bukowski, & Parker, 1998; Sroufe & Rutter, 1984).

Although these findings form a basis of modern developmental psychology, it is important to acknowledge that the overwhelming majority of research on the nature and process of the acquisition of various competencies at different developmental stages has been conducted in industrialized countries, where the primary indicator of life adjustment is school adjustment (school competence). But, as we demonstrated above, less than 15% of the world's children grow up in industrialized countries. In addition, for children growing up in developing countries, the experience of schooling and, therefore, school competence, are rather distal to the fulfillment of their immediate needs of safety and well-being. The question, then, is if schooling is not central to these children, what is?

The general assertion, derived from studies in industrialized countries, is that acquiring “key” competence in stage-salient tasks increases the likelihood of later success in mastering other required skills (e.g., gaining other competence) and minimizes the risk of emergence and persistent presence of maladaptive patterns (Keenan & Shaw, 1997; Masten & Coatsworth, 1995, 1998). If this claim is correct then we should be able to identify such “key” competencies in developing societies as well. The content of “key” competencies most likely will be different in children in the industrialized and unindustrialized worlds, but the general structure underlying the relationships between competencies and life adjustment should be the same across different cultures and societies.

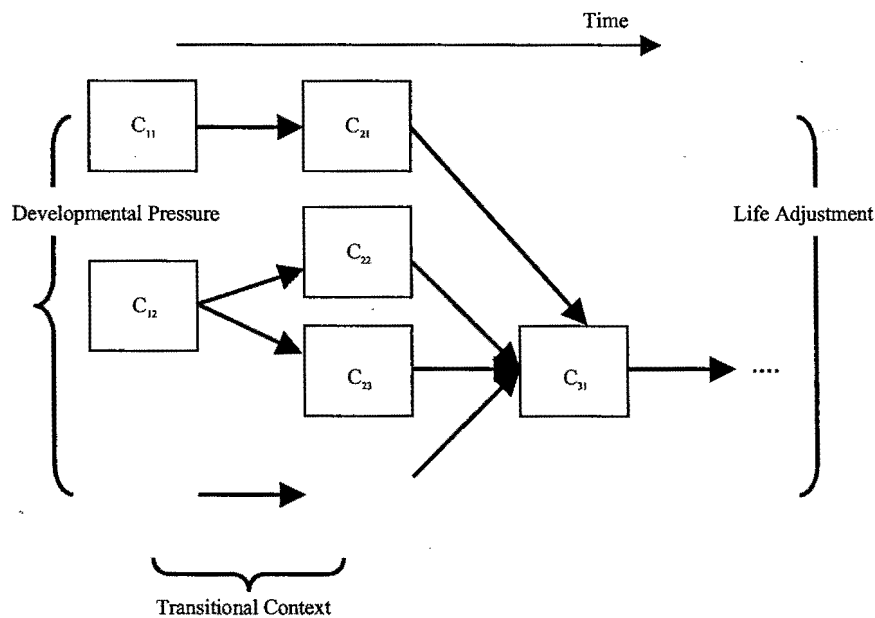


Figure 2.1. The model of the development of competencies over time. The letter *C* is used as abbreviation for competencies. The letters are indexed so that the first index signifies the time (we depict three times points) and the second index signifies a given competence.

Here we present a general model linking competencies and life adjustment (see Figure 2.1). The model assumes the development of competencies across time and is oriented toward successful life adjustment and unfolding under developmental pressure. In more detail, we assume that one of the roles of developmental socialization is the acquisition of a set of competencies that are necessary for successful life adjustment. Although this model is embedded in and derived from the literature on competence (e.g., Havighurst, 1972; Masten & Coatsworth, 1995, 1998; White, 1959), we think that a number of issues important for understanding child development in nonindustrialized countries are stressed in this model.

First, the concept of life adjustment, by its nature, reflects the culture, society, and community in which the child develops. The dimensions of life for the Masai people of rural Kenya are different from those of people elsewhere. For example, according to one Masai adult, the tribe picks out the brightest children, the ones with the most potential, and sends them away with the goats. As a father of two sons says, it takes brains to identify every animal, find water, and ward off cattle rustlers. Therefore, he sends his smarter son away with the goats and sends his not-so-smart son to school (“No Swots, Please, We’re Masai,” 2002). Clearly, the life, community, and family demands and expectations of the Masai boy herding sheep are different from that of a child of a Harvard professor attending a prep school in New Eng-

land. Yet, their success of life adjustment might be comparable: both boys need to meet the expectations of their societies, as expressed by expectations of their fathers, and for that they need to master corresponding competencies. Thus, although the content of the competencies is very different (how to herd goats in remote areas of Kenya versus how to succeed in a New England prep school), the developmental tasks are similar: The boys need to learn what is expected of them culturally.

Second, we would like to stress how important it is, from our point of view, to consider more than merely Westernized approaches to studying children's competencies in nonindustrialized cultures. Specifically, what we mean is the following. For the past 30 years in industrialized countries, the concept of *resilience*, usually defined as the child's ability to develop required competencies in spite of growing up in the context of disadvantaged or threatening environments, has attracted a lot of attention (Masten, 1999a, 1999b). The underlying assumption of this research is that there are children who can somehow develop typically in atypical (disadvantaged or threatening) environments; thus, if we understand what drives their development, we can prevent or treat negative outcomes that are usually observed in such atypical environments. The important issue here is that, by the standards of the industrialized world, most of the children in the developing world live and grow up in atypical (disadvantaged and threatening) environments. What we argue here is that their development cannot be studied and understood with the list of Western-world required competencies in mind; we need to understand the critical competencies for successful lives in their cultures, and how such competencies are acquired.

The success of life adjustment is determined by how well a child is able to master the competencies necessary for prospering in life, including meeting the demands of culture, society, community, and family. The mastery of these competencies occurs over time and assumes some sequence (e.g., for a child to be able to hunt, as is required by Bushman society, he needs to know how to read animal tracks in the sand, how to interpret the environment so as not to lose the sense of direction, how to shoot a bow, and so on). Moreover, often, prior to mastery of a structurally complex competency (e.g., C_{31} in the figure), the child needs to become competent performing easier tasks (e.g., C_{22} , C_{23} , and C_{24}). For example, before a 6- or 7-year-old girl in a slum of Delhi is left alone to care for her baby brother, the girl should know how to carry the boy around, what to do if the boy cries, and so on.

The third and fourth issues with regard to Figure 2.1 relate to the question of how the child selects competencies to master and how the transition to higher-level (more complex) competencies is insured. With regard to the third issue, selecting competencies to master, this selection, especially at early stages of development, is done for the child through mechanisms of socialization. For example, a street boy on the streets of Nairobi (see below) does not have much choice but to learn how to make some money by the age of 8 or 9

so that he can support himself, because his parents do not want to support him anymore, and bring some income back to his mother's house, because she expects him to help them support his younger siblings. Similarly, a child soldier in the National Mozambican Resistance may not have much choice but to master weapons to save his or her life. We refer to this necessity of acquiring competencies that ensure the child's survival and the sense of belonging as *developmental pressure*. With this concept we attempt to signify (a) the demand embedded in the need to gain competencies in doing things that are crucial for the child's well-being at a given moment and (b) the temporal nature of this pressure—a given competency lays a foundation for mastery of new competencies but does not warrant by itself a successful life adjustment.

Regarding the fourth issue, the transition to higher-order competencies always assumes the presence of the transitional context. Typically, this transitional context is created by adults who survey the level of acquisition of the lower-level activities and judge whether the child is competent enough at the lower-level activity (e.g., handling a fishing net) to attempt mastering a new, higher-level activity (e.g., going fishing on a boat alone). This transitional context can also be created by more knowledgeable peers or even by strangers who can be used as models for the child. One way or another, the transitional context assumes the presence of a person (or some other agent of socialization—a manual, a legend, a movie, a book, or a symbol) more competent than the child (e.g., Goodnow, 2001). The structure of the transitional context is such that it permits (a) the formulation of the child's developmental task (explicitly, by the child him- or herself—e.g., I want to become a soldier, or implicitly, by the surrounding adults—e.g., we need you to become a good fighter); (b) the creation of the motivational structure underlying the accomplishment of this developmental task (i.e., the establishment of the system of praises and punishments allowing the mastery of the skill); and (c) the delivery of the tools necessary for the mastery of the new competency (e.g., of fishnets for young fishermen or weapons for young soldiers).

Finally, it is important to know that competencies themselves do not have values attached to them; they are not "good" or "bad." A competent thief is as much a master of the competencies required for stealing something without being caught as a scoring soccer player is a master of the competencies required for success in a soccer game and an A-student is a master of competencies required in successful schooling. Although the contents of the activity of stealing, the activity of playing soccer, and the activity of succeeding at school are different, the model of acquiring them is generic.

In this chapter, we argue that the field of psychology collectively has put much emphasis on understanding competencies in children living in industrialized countries, with the central competency there being that of successful school adjustment. However, there is very little theory and research regarding acquisition of competencies by children who never experience the task of school adjustment as their developmental task simply because they do

not go to school at all or go to school briefly and asystematically (with schooling a rather peripheral activity in their lives). Therefore, having presented the general model linking competencies and social adjustment at multiple levels, below we attempt to discuss examples of competencies whose acquisition appears to be important for the life of out-of-school children. In general, we will attempt to answer the following question: What are developmentally salient competencies that are expected to be acquired by children who grow up in environments where schooling does not play the central role and school adjustment is not the salient developmental task?

OTHER THAN SCHOOL AND PLAY

In this section of the chapter, we briefly review literature on children's competencies around the world as presented by researchers, social workers, and journalists. Here we are interested in competencies acquired outside of school and play settings. Specifically, we survey settings of (a) war and armed civil conflicts; (b) street childhood; and (c) large poor households.

All subsections of this part of the chapter will follow the same structure. First, we will present the known statistics on the number of children observed in the described settings. Second, we will offer several hypotheses on why children enter a setting and how they function in a given setting. Third, we will summarize what is known in the literature with regard to competencies children acquire in these settings and the transferability of these competencies to other competencies.

War and Armed Civil Conflicts and Children

Over the past two decades, war and armed civil conflicts have killed more than 6 million people worldwide. Lives of millions and millions of people have been affected by war. For example, the Congo's war has affected some 16 million people (*Economist*, December 9, 2000, p. 27). Most wars and armed civil conflicts devastate the countries in which they unfold. Wars jeopardize food supplies, damage agricultural infrastructure, and destroy crops and domestic animals. Of the 10 countries with the highest rates of infant and toddler death, 7 are affected by armed conflict.

Various world peace organizations have developed a number of provisions to influence parties involved in conflicts and urge them to find peaceful solutions to disputes (Machel, 2000). The international laws of war pay special attention to the involvement of children in the armed conflicts. Specifically, the norms of humanitarian law found in the 1977 Protocols I and II to the Geneva Conventions of 1949 forbid the use of children under the age of 15 as soldiers and urge states to give priority to the oldest children when recruiting children between the ages of 15 and 18. The United Nations Convention on the Rights of the Child contains similar language. A broad inter-

national accord of more than 80 countries prohibits the use of child soldiers in war and establishes 18 as the minimum age for sending soldiers into combat (Myers, 2000). However, practice shows that when there is a war, these regulations are usually disregarded.

In recent decades, the proportion of civilian war victims has leaped dramatically, from 5% to more than 90%. Of the 35 million refugees and displaced people in the world, 80% are women and children. Between 1990 and 2000, 2 million children were slaughtered, 6 million injured or permanently disabled, and 12 million left homeless because of conflict. Conflict has orphaned or separated more than 1 million children from their families in the last decade of the 20th century (UNICEF, 2002). Half of all Rwanda's children have witnessed a massacre (UNICEF, 1996). A study carried out in Mozambique during the war involved a survey of a large group of girls and boys and reported that, of those surveyed, 77% witnessed assassinations, usually in large numbers, 88% witnessed physical abuse and torture, 51% were physically abused or tortured, 63% witnessed kidnapping and sexual abuse, 64% were kidnapped from their families, 75% of the kidnapped children were forced to serve as couriers, and 28% of the kidnapped children (all boys) were trained for combat (Boothby, 1992). It is estimated that more than 500,000 children under age 18 are in armies and guerilla groups around the world, with 300,000 of them in actual combat (Crossette, 2001).

There is evidence documenting the involvement of children as soldiers in Afghanistan, Angola, Burma, Congo, El Salvador, Ethiopia, Guatemala, Israeli-occupied territories, Liberia, Mozambique, Sri Lanka, and Sudan (Cohn & Goodwin-Gill, 1994). The details of this evidence are both heartbreaking with regard to what difficult times children go through in these conflicts and astonishing with regard to competencies children acquire through these conflicts. For example, Uganda's National Resistance Army, which took power in January 1986 after the overthrow of President Obote, contained an estimated 3,000 children under 16, including 500 girls (Dodge & Raundalen, 1991). Data indicate that, at the end of the war in Mozambique, 27% (about 25,498) of the demobilized soldiers were at the time younger than 18 years of age; of these numbers, about 16,553 belonged to the governmental army, whereas 8,945 belonged to the National Mozambican Resistance (Máusse, 1999). According to the UNICEF estimates, the war in Liberia involved 6,000–8,000 children under age 15 as soldiers in various military groups. Since the involvement of the Taliban in the Afghanistan civil war in 1994, it has been estimated that at least 108,000 children were involved in fighting the Soviets in Afghanistan (ECPAT, 1999). There are an estimated 25,000 child soldiers in the armed forces in the Burma military (ICFTU, October 1996). And the list can go on, indicating that the presence of an armed conflict almost inevitably results in the recruitment of children as soldiers. Currently, more than 50 countries recruit child soldiers into the armed forces (Global March Against Child Labour, n.d.).

There are many reasons why children get engaged in armed conflicts. The generic description of these many reasons amounts to a reference to the ecologies (or developmental niches) of their lives. Such ecologies encompass children's religion, ideology, and indoctrination, and their social, community, and family values, as well as their peers' pressure. However, the majority of these reasons can be clustered into two large groups: involuntary and voluntary recruitment.

Involuntary recruitment is coercive and usually originates from a shortage of manpower and the need to raise and train new skilled soldiers to replace the dead ones. In a number of countries, however, involuntary recruitment into the military was used as a means of population control, that is, children were taken away from their families to control the size of a growing minority population (e.g., ethnic and religious conflicts in Sudan; Sudan Update, n.d.). There are many documented ways of coercive recruitment. Examples are threat to the child ("Under-age Killers," 1998, on the war in Sierra Leone), threat to the child's family or community ("Kalashnikov Kids," 1999, on child soldiers), even bribes to the child's family or community (e.g., Department of Foreign Affairs and International Trade, Canada, n.d.), or "simple" abduction ("Call Off the Dogs of War," 1999, on the war in Uganda; Human Rights Watch, n.d., on the civil conflicts in Peru). For example, between the late 1980s and 1992 some 12,500 Sudanese boys wandered across 2,000 kilometers of desert between Sudan, Ethiopia, and Kenya. It was suspected that they had been taken away from their families at a very young age by Sudanese rebel forces, the Sudanese People's Liberation Army, trying to ensure a future supply of fighters; the boys appeared to receive paramilitary training, although there was no documentation of it (Moumtzis, 1992).

However, many children join one of the two (or many) fighting sides voluntarily. The literature contains quite a number of qualitative descriptions of reasons leading children to join the armed forces. Here we will mention only selected reasons. First, several developing countries use a type of schooling modeled after militarized education, in which children are educated and disciplined in a style resembling that of the military (e.g., militarized education in Afghanistan; Center for Defense Information, 2001). Second, it has been documented that in societies in which physical and structural violence are ruling forces of everyday life, violent behavior is often rewarded and, therefore, children develop a "taste" for violence. For example, young fighters surveyed while in the army have reported that they joined the army because being a part of it gives them power and allows them to be "the strong one" or because they see themselves as fighting for a good cause (e.g., UNICEF, n.d.). Third, while living in war, joining military forces might be among the better of the not-so-good or bad choices. If children's homes are destroyed and their caregivers are killed, children who are left without any means of supporting themselves may join a fighting side as a means of survival (e.g., UNICEF, n.d.).

The great majority of a rather limited number of publications on the issue of children caught in armed and civil conflicts view children as victims of these conflicts. In general, these works concentrate on trying to find an answer to the question of whether war disrupts the emotional adaptation and social-emotional development of the victimized children, no matter what country the research took place in (e.g., Day & Sadek, 1982—Lebanese children; Dodge, 1986—Ugandan children; Macksoud & Aber, 1996—Lebanese children; Macksoud, Aber, & Cohn, 1996—Kuwaiti children; Mandour & Hourani, 1989—Palestinian children; Povrzanovic, 1997—Croatian and Bosnian children; Protacio-Marcelino, 1989—children of the Philippines; Punamäki, 1982—children of Israel and Palestine; Rousseau, Drapeau, & Platt, 1999—Cambodian children; Salman, ten Bensel, & Maruyama, 1993—Palestinian and Israeli-Arab children; Shirmer, 1986—children of Chile; Yule, 2000—Bosnian children; Ziv & Israel, 1973—Israeli children; Zvizdic & Butollo, 2001—children of Bosnia and Herzegovina). Invariably, the conclusion of these studies is that war is a direct causal factor of social-emotional maladjustment of children witnessing or participating in the conflict and the increase of war stress is related to the increase in psychopathology (e.g., Ager, 1996; Jensen, 1996; Wessells, 1998).

Two issues have to be mentioned here. One is that the primary focus of research on children engaged in war conflicts has been on psychological outcomes of armed conflicts, specifically, posttraumatic stress symptoms (e.g., Boehnlein, Kinzie, Rath, & Fleck, 1985; Hubbard, Realmuto, Northwood, & Masten, 1995; Kinzie, 1985; Nader, 1997; Weine, Becker, & McGlashan, 1995; Zivcic, 1993) or response to chronic stress (Stichick, 2001; Terr, 1991). The second issue is that, although 65 of the 79 countries that have been involved in armed conflicts since 1993 are in the developing world, only a handful of investigations consider the mental health of children drawn into armed conflicts in these countries (Stichick, 2001), indicating the field's lack of understanding of the psychology of children's passive and active participation in armed conflicts.

Needless to say, war endangers many aspects of child development. However, there is another, less-explored aspect of the children's involvement in armed conflicts. As stated by Garbarino and colleagues (Garbarino, Kostelny, & Dubrow, 1991), children growing up in dangerous environments such as those involving armed conflicts have to demonstrate remarkable psychological adjustment skills in coping with chronic violence. Such skills can be both adaptive and maladaptive and, correspondingly, may result in both positive and negative alterations in behavior and attitudes.

There is virtually nothing known about the competencies a child serving as a soldier should master simply to stay alive in such an adverse environment as the front line of a war. What are these competencies and how do children master them?

To our knowledge, there has been very little systematic research on the competencies of a child soldier. Roles and duties of children involved in armed conflicts have been reported to include running errands, carrying ammunition, acting as bodyguards, acting as spies, acting as informants, manning checkpoints, checking documents and packages, carrying out ambushes, fighting on the front lines, and serving as executioners of suspected enemies (Human Rights Watch, 1994).

In Uganda, child soldiers were described as disciplined, reliable, and trustworthy: They were assigned military tasks requiring high-level skills of handling weapons and maneuvering at the front lines and in enemy territory (Dodge & Raundalen, 1991). Interviews with Irish, Palestinian, and Israeli children involved in conflicts revealed "positive" aspects of children's participation in a state of war. It was reported by children that war gave child participants a mission in life, order, hierarchy, physical fitness, a sense of importance, of being essential to both a particular goal and an abstract idea, true friendship, and the sense of stability (Rosenblatt, 1983). Children of South Africa were not directly involved in military actions, but participated in a rather unusual "war" fought in the streets of many communities throughout the country. These children were soldiers as well as schoolchildren. They combined roles of football players, torturers, township *kwaito* dancers, killers, and demolition machines (Nina, 1999).

UNICEF reports on the involvement of children in military operations describe the following competencies mastered by "good soldiers": handling and caring for weapons, having minimal medical and hygiene skills in handling wounds and personal needs, reading and interpreting maps, navigating unknown terrains, assuming leadership roles at checkpoints, accepting and issuing orders, detecting enemies, cooking, and so on. On the top of these competencies crucial for the child's survival, there have been reports on psychological features of successful young soldiers. For example, a child soldier from Sudan reported that for a child to be a successful soldier, he or she needs to learn how to battle the feelings of helplessness and vulnerability, how to relate to personal experiences with the enemy to feel the desire for revenge, how to identify with the army, and how to not fear death (Santoro, 2000). Furthermore, as described above, particular "positive" feelings experienced by child soldiers, chiefly patriotism, self-pride, and unit-pride, have been shown to contribute to the prevention of posttraumatic stress disorder often experienced by children caught in an armed conflict (Armfield, 1994).

Some additional information can be drawn from related reports that have studied the impact of armed conflicts on children. For example, Rofe and Lewin (1982) showed that children living in Israeli towns that were shelled more frequently because of their proximity to the border experienced fewer sleep disturbances than children whose towns were shelled less frequently. The relevant hypothesis here is that a prolonged exposure to an adverse environment results in the development of an adaptive style that

permits more-or-less adequate functioning even in high-stress situations. Extending this hypothesis further, living and growing up in environments with high levels of threat results in developing competencies that are essential for successful adjustment to this environment and are not required at all for living in a no-threat environment.

Again, virtually nothing is known about the ways children acquire competencies required of a soldier. Throughout reports of aid organizations and mass media, one can find multiple references to the militarized schooling environment of those schools from which the military or guerilla forces draw their recruits. However, given that the recruitment from these schools is relatively low in comparison to the overall number of children involved in armed crises, it is clear that most of the relevant competencies are mastered by these children on the spot without proper training. We assume that, similar to mastering any skill, adult and peer supervision plays a crucial role in mastering competencies of a warrior, but no published evidence supports this hypothesis.

Armed conflicts have orphaned or separated more than 1 million children from their families in the last decade of the 20th century. Approximately one third of these children ended up being a part of military formations, fighting shoulder-to-shoulder with adults. Much attention has been given to the detrimental impact of the war on the psychological development of these children. Significantly less attention has been given to wide ranges of competencies acquired by these children, their resourcefulness in developing themselves, mastering necessary activities, and adjusting to the harsh lives they live. Although the image of a child as a passive victim of armed conflict is well justified, we cannot underestimate the importance of understanding the active involvement of children in war and the mechanisms of their successful adjustment and survival in adverse conditions of armed conflicts. What is called a developmental success here refers to the child's ability to "detect" the components of the competency chain that provide him or her with tools for survival, acquire these competencies, and then, it is hoped, be able to transfer the acquired competencies to a new, after-war situation. This active role of a child is well expressed by Farid Dadashev, an 11-year-old boy from Azerbaijan, who said that if children are involved in the war they often can do nothing but learn how to fight; but if children need peace they must do something to make the peace happen (UNICEF, 2002).

Street Childhood

Large urban centers in developing countries have a rather special subpopulation that can be easily "registered" as living on the streets; the members of this subpopulation can be seen, primarily in downtowns, wearing shabby, dirty clothing, begging, performing menial chores, working, or just wandering apparently without a purpose. This subpopulation usually com-

prises children younger than 18. These children are often collectively referred to as *street children*.

The United Nations defines a street child as

any boy or girl . . . for whom the street (in the widest sense of the word, including unoccupied dwellings, wasteland, and so on) has become his or her habitual abode and/or source of livelihood; and who is inadequately protected, supervised, or directed by responsible adults. (quoted in Lusk, 1992, p. 24)

Clearly, this definition refers collectively to heterogeneous groups of children including runaway, homeless, orphaned, and throwaway children and adolescents.

To understand this heterogeneous population, researchers have attempted to subdivide the collective entity of street children in several different ways. The broadest classification forms two groups: *children of the streets* (children who actively live on the street and do not have stable family ties) and *children in the streets* (children who live with their families and may attend school but spend all or part of their time on the streets, trying to make money for themselves or their families; Barker & Knaul, 1991; Campos et al., 1994). Other researchers have proposed other classifications, but these are usually closely related to the specific samples studied. For example, Felsman (1985) identified three different groups of street children in Cali, Colombia: (a) children who were orphaned or abandoned by their families; (b) children who apparently made an "active, willful departure from home" to live on the streets, and (c) those who "actively maintained family ties" (p. 4). In another classification, Martins (1996) classified street children in São José, Brazil, using dimensions of school attendance, occupation on the streets, and family ties.

The number of street youth worldwide is unknown, and the estimates range from several million to more than 100 million (UNICEF, 1989, 1993). Similar to the youth involved in armed conflicts, street youth have been largely excluded from the realm of developmental research. Children and adolescents living on streets can be found in virtually any country and any nation. However, there is a geographical variability in causes of their street childhood. Specifically, in India and most of Latin America, the major force leading children to the streets is poverty. More than half a billion children live on less than \$1 U.S. a day. More than 100 million children are out of school because of poverty, discrimination, or lack of resources (UNICEF, 2002).

The existence of street children is an urban phenomenon, and this fact, on its own, requires attention of sociologists and psychologists. It is interesting to note that parentless and homeless children either get "incorporated" by rural communities or leave rural communities and go to urban centers. The reasons for the presence of the population of street children vary across

different times and nations. In the developing world, there are three main reasons for the children ending up on the streets: poverty, armed conflicts, and diseases. In industrialized countries, the majority of youngsters found on city streets appear to be escaping dysfunctional family or peer relationships (e.g., Whitbeck & Hoyt, 1999).

Below we provide a selective capsule review of the literature on street children in Asia, Latin America, and Africa.

Asia

In India, many street children come from second- and third-generation migrant families of lower, socially disadvantaged castes. These families usually migrate to urban areas from rural areas affected by drought or flood, trying to find employment. In such families, children start working on the streets very young, working 8–12 hours a day (Rane & Shroff, 1994). It has been estimated that almost half of Indian street children do not have a roof over their heads and lack access to basic amenities (Rane & Shroff, 1994). Not all children live independently; quite a few children live on the streets with their families (Arimpoor, 1992; Verma & Dhingra, 1993).

Seventy percent of children working on the streets of India make approximately 10 rupees (21 cents) per day (Verma, 1999). Ten rupees in India will buy a low-quality loaf of bread. They are usually willing to do any kind of chores; the luckier children find jobs selling newspapers or lottery tickets, or working as teashop attendants or helpers in automobile repair shops (Mathur, 1993). If nothing is available, children beg, steal, peddle drugs, engage in prostitution, and scrounge from the garbage (Koushik & Bawikar, 1990; Varma & Jain, 1992). In addition to sparse work opportunities, children face other difficulties, such as difficulties with the police (who both exploit and abuse them), weather (many children move from Delhi to Bombay during winter, and from Bombay to Delhi during monsoons; Panicker & Nangia, 1992), and health problems (cholera, typhoid, gastroenteritis, amoebic dysentery, tetanus, tuberculosis, intestinal parasites, scabies, rickets, malnutrition, anemia, and night blindness).

To investigate Indian street children's daily experiences, Verma and colleagues (Verma, 1999; Verma & Dhingra, 1993) studied a sample of 100 children aged 11–18 years living in the city of Chandigarh, who were working on the streets as beggars, vendors, ragpickers, and in other occupations. The researchers collected data on daily experiences (what street children do) and time spent on daily activities (how street children spend their time). The researchers reported that the activities could be divided into three major groups: (a) household work; (b) income-earning activities; and (c) leisure-time activities.

The interviewed children reported child care, cleaning, cooking, washing, fetching water, and collecting wood or fuel, among other things, as household activities. Child care is often combined with other activities, so that an

older street child (from about the age of 6 years!) is often seen with an infant or toddler while performing a street chore or begging. There is a large gender difference, with girls spending four times as much time on these activities compared with boys (Verma, 1999; Verma & Dhingra, 1993).

With regard to income-earning activities, children engage in a wide variety of marginal economic activities and their repertoires vary depending on the weather, season, and other factors. Children reported spending 8 to 10 hours on the streets every day at various points of day and night depending on the chore they are engaged with on a particular day. Often, to support each other and to protect their "borders," children will form a gang. Any violation of the gang rules invites violent collisions and social ostracism (Pande, 1992; Verma & Dhingra, 1993).

The following presents a true story of Ashok,² a boy from a Lucknow slum who works.

At the age of 7, Ashok Kumar got his first "career break" while sneaking into a nearby clinic to watch television. An employee noticed the boy and offered him two choices: work or leave. Ashok has worked at the homeopathic clinic—6 days and 40 hours per week—ever since.

For 2 years Ashok has been an assistant compounder. His job is to crush medicine and to roll it into little balls. Once in ball-form, he packs the medicine into glass vials. If a powder is required, Ashok measures the medicine into paper packets. He likes his boss, Dr. R. Diverma, and enjoys earning 100 rupees (\$2.07) each month. After a year of training, the work is now easy and Ashok works without complaint. He acknowledges that each member of the Kumar household of 12 is expected to work outside of the home to fulfill his or her familial duty.

Ashok's mother, Savitri, has been a part of the workforce for 21 years. She is a *sahika* (assistant) at the local Anganwadi Center, where she earns 250 rupees (\$5.16) per month. Her duties include distributing morning porridge and conducting classes for preschool children. Recently, Savitri was involved in the movement to vaccinate the nation's children against polio. On a predesignated weekend, the government sent medical technicians into all of the Anganwadi Centers (among other places) and gave children mouth-drops containing the vaccine. Savitri proudly announces that she has helped India to become polio-free.

The older siblings work as well, but it is Ram, Ashok's father, who earns most of the family income. Ram makes 800 rupees (\$16.52) per month as a *rickschaw-wallah* (rickshaw-man); he pedals a bicycle attached to a carriage, and delivers customers to their desired destinations. The job is physically demanding, and Ram is exhausted at the end of each day. So it is the children and Savitri who do all the work in the household.

²The story was written down by Elisa Meier, a research assistant on one of the PACE Center projects in Lucknow, India. Included with permission.

Street children's leisure activities are interwoven with their chores. Typically, the leisure activities include chatting, playing games, roaming around, dancing, singing, watching television, listening to transistor radios, playing video games in market areas, and watching movies. Younger children often make their own toys and engage in role-playing by separating rags, fetching water, and cooking using tiny containers, thus imitating elder siblings and mothers.

There are no accurate and consistent estimates of the percentage of time children spend on any particular type of activity. What is known, however, is that street children in India have very little leisure time. The days are spent mostly in earning money or finding food and a place to sleep. Thus, from these accounts, the main factor that drives children out to the streets is poverty (Pande, 1992; Verma, 1999; Verma & Dhingra, 1993).

Latin America

It has been estimated that the number of street children in Brazil ranges from 7 million to 30 million (Barker & Knaul, 1991; Lusk, 1992; Sanders, 1987; UNICEF, 1989). There are different reasons that put children on the streets (Raffaelli, 1997), but, similar to the situation in Asia, most of them are underwritten by poverty. First, some children are sent to downtown streets by their families to find food, money, or clothes. Second, some children come to the streets on their own hoping to help their families and themselves; these children are not encouraged to go on the streets, but they have silent support from their families. Third, some children are thrown away by their parents, who cannot afford to support them. Finally, some children run away from their families (often driven away by frequent violence at home).

It is important to mention that the competencies of street children in Latin America are formally the most studied. There are multiple reasons for that. One, and probably the most important, is that prior to the AIDS epidemic in Africa (see below), Latin America had the largest number of street children in the world. In addition, many street preadolescents and teenagers engage in or develop their own "street business," selling such snack foods as roasted peanuts, popcorn, coconut milk, or corn on the cob. For example, in the Brazilian cities of Fortaleza and Salvador, 2.2% and 1.4%, respectively, of street vendors in 1980 were aged 14 or under, and 8.2% and 7.5%, respectively, were aged 15–19 (Cavalcanti & Duarte, 1980a, 1980b).

Another very important reason is that a number of researchers in Latin America, especially in Brazil, have developed interesting paradigms engaging street children in scientific research. One such paradigm of research is on street mathematics (e.g., Guberman, 1996; Nuñez, Schleimann, & Carraher, 1993). The Brazilian researchers (for a review, see Nuñez, Schleimann, & Carraher, 1993) referred to street mathematics as an example of informal math—mathematics practiced outside school. Their initial studies were based on the observation that street business boys and girls have to solve a large

number of mathematical problems without applying any tools such as a pencil, paper, or a calculator. The review of the street operations revealed that these children and adolescents carry out operations of multiplication, addition, subtraction, and division. The researchers designed a series of parallel tasks, one set of which was administered to the young vendors in street settings, as if they were doing their everyday jobs, whereas a comparable set of tasks was administered to the same children in school-like settings, in which problems were formalized and presented in abstract terms. It turned out that young vendors demonstrated competent problem solving in street settings, but their performance dropped significantly in school-like settings.

This line of research on comparative performance in street (or some other “applied”) settings versus school-like settings has been developed further through work with apprentices of farmers, carpenters, builders, and fisherman. Different mathematical operations have been considered (including operations with decimals and proportions), but the pattern of results remained the same: There is a discrepancy between applied (trade-related) and formalized (school-like) performance of children and adolescents with lack of formal education. Specifically, if presented with comparable tasks in different applied and school-like settings, they tend to do much better on tasks relevant to their everyday trades (for a review, see Nuñez, Schleimann, & Carraher, 1993).

This research has indicated that street mathematics has a great social significance in cultures that do not provide either formal training or official recognition to the mathematical abilities required for success in various trades. Moreover, this research has shown that street mathematics in particular and informal mathematics in general, often considered as “lesser mathematics,” is a complex type of cognition (and, correspondingly, cognitive development) that can be referred to as “cognition in practice” (Lave, 1988). From this point of view, street mathematics is a type of cognitive operation that is embedded in a social situation and, therefore, constrained by cultural, social, empirical, and logical rules and a specific target (e.g., conducting measurement, determining change, calculating distance). In other words, becoming competent in street mathematics is as important a developmental task for a youngster engaged in a street trade as a mastery of abstract mathematical concepts and rules for a youngster attempting to become a successful school student. In terms of our model, the developmental pressures for a young street vendor and a school student are different, but the developmental tasks of adjusting to street life or school life are comparable: both require mastery of competence, street mathematics in the former and formal mathematics in the latter.

Africa

Although there are many more boys on the street than girls all over the world, in Kenya this imbalance is even more pronounced: 9 out of 10 street

children in Kenya were reported to be male (Onyango, Suda, & Orwa, 1991). There are multiple hypotheses of why there are more boys on the streets than girls, with the underlying assumption of these differences being different socialization of boys and girls. It has been argued that boys are driven to the streets by their parents' expectation to be independent at a rather early age, specifically, by the age of 10–12 (Aptekar & Stocklin, 1996). On the contrary, the girl-like way of coping with poverty is by staying at home and helping with household chores; thus girls who come to the street either lose their homes or leave home because of abuse or family dysfunction. For example, it has been reported that 80% of street girls came from homes with only a single room (Undugu Society of Kenya, 1990–1991). It has been stated that, given the rather loose family structure frequently observed among lower-socioeconomic status Kenyans, it is common for a woman with children to have multiple partners sequentially, forming short-lasting, common-law unions. Thus, children can grow up with multiple sequential men in the household. Often housing is an issue, so the mother, her children, and the men in the household have to share one room. It has been reported that 80% of the street girls in Nairobi have been sexually abused (Onyango, Suda, & Orwa, 1991) and the major reason found for girls to leave home was because they could no longer sleep without the fear of being violated by a nonrelated man living in the house (Aptekar & Ciano-Federoff, 1999).

The epidemic of AIDS has been slowly changing this balance, with extended families being overwhelmed with the number of orphaned child relatives and unable to care for them anymore. The AIDS epidemic has now become the major factor in the phenomenon of street youth (Rutayuga, 1992). Eighty percent of children under the age of 15 living with HIV are children living in Africa. Many African children die of AIDS before the age of 5. In Botswana this figure is devastating, reaching 64%—thus, the majority of Botswana children born with AIDS die before the age of 5. Figures in other African nations range from 17–50%. In addition, more than 13 million children aged 14 or younger have been orphaned by AIDS, and 80% of these children live in Africa (UNICEF, 2002).

The AIDS crisis has overwhelmed the already weak African economies and has thrown millions and millions of children on the street (Guest, 2001). In 2001, 12 countries in sub-Saharan Africa contained 70% of the AIDS orphans; the three countries with the largest number of orphans were Nigeria, Ethiopia, and the Democratic Republic of Congo (UNICEF, 2002). All developmental agencies agree that today's prevalent rates of HIV infection will largely determine the pattern of orphaning for the next decade—in essence, the number of orphans will continue to rise. For example, according to the estimates by an American aid organization (USAID), in the year 2010, the Eastern African country of Tanzania will have 4.2 million orphans.

However, similar to the situation with the research on children affected by the armed conflicts, existing psychosocial research on AIDS orphans has

concentrated primarily on children from industrialized societies (e.g., Dansky, 1997; Geballe, Gruendel, & Andiman, 1995). The central themes of this research are children living with uncertainty about their future, dealing with the impact on family relationships, dealing with disclosure and grief, and finding adequate social support. Although all these themes are essential to understanding the impact of the AIDS epidemic on humanity, our literature search has not resulted in any publications on the development of adaptive competencies in orphans of AIDS. But these millions of children must adapt to survive and they do, so how do they do this?

Naturally, the most serious efforts in coping with the problem of AIDS orphans in Africa have to do with the issues of infection prevention and taking the children off the streets and bringing them into the more ordered and stable environments of orphanages and special schools. Thus, similar to the stories of successful young soldiers (i.e., those children who master the competencies related to being a soldier, survive armed conflict, and grow up to be a well-adjusted adult), the stories of "beating the fate" by orphan children in Africa and growing up into a well-adjusted adult are not told and, therefore, not heard.

The brief overviews of the literature generated on the three different continents are strikingly similar. The similarity lies in the devastating nature of the situations in which street children grow up, the "roughness" of the world in which they live, and in the remarkable resourcefulness, adaptive skills, and creativity they demonstrate to survive. Researchers (Aptekar & Ciano-Federoff, 1999; Lucchini, 1996; Muraya, 1993; Suda, 1994; Tyler, Tyler, Tommasello, & Connolly, 1992) indicate that street children master the skill of approaching people and relating to them (reading a customer and trying to figure out what, if anything, can be sold to him or her); negotiation; stress management; personal safety; dealing with and protecting themselves from abuse and aggression; finding ways of making money; finding ways of sending some money back to their families; finding and benefiting from social services; finding ways to meet their medical needs; maneuvering the legal system (e.g., giving the officers different names at each arrest and obtaining lighter sentences as first offenders); navigating large geographic areas (buying things at cheaper prices and selling them at higher prices); making deals with restaurants and food stores to get leftovers; finding safe sleeping arrangements; detecting danger "in the air"; finding places to meet personal hygiene needs (e.g., to shower); trying on different social roles (figuring out what works and what does not while trying to find work or beg); and staying away from or negotiating relationships with drug dealers, pimps, and police. All these and many other skills are needed for survival on the streets and developing a way to deal with life.

Clearly, even from the brief descriptions presented above, it is obvious that the most important developmental task faced by street children is the urgency and immediacy of daily survival, and that these kids show intelli-

gence and a wide range of competencies in adapting to their immediate environments (Tyler, Tyler, Tomasello, & Connolly, 1992) and trying to figure out their place in society and use it to their advantage (Aptekar & Ciano-Federoff, 1999; Lucchini, 1996; Muraya, 1993; Suda, 1994). As indicated in our model above, and in concordance with Kagitçibasi (1996), we stress the importance of mastering skills up to the degree of competence by these children. Arguably, what matters most developmentally is creating the model of how to negotiate any novel situation and determine skills that need to be mastered for competent behavior in the situation; when the task is clear and the child knows what to do, he or she can, mostly likely, master the needed skill. Kagitçibasi (1996) refers to these skills of negotiating new situations as *generalizable* competencies, arguing that they are much more important and transfer much further than task-specific competencies. Having mastered generalizable competencies, a street child (or any child) can, most likely, master task-specific competencies. It is the reverse movement that is much more difficult to make.

Child Labor

Traditionally, the UNICEF annual reports on the state of the world's children contain citations from girls and boys around the world collected, translated, and compiled by UNICEF-affiliated adults around the world. Here are a few selected quotes from the 2002 report (p. 72) with which we would like to start this section of the chapter.

"How can I continue education without having enough to eat?"

Zewdi, 14, Eritrea

"... child labor is more profitable in the eyes of their parents, because they will be making money for the family instead of studying. Studying would be an investment for families, which would not be affordable in many cases."

Deepti, 17, India

"Even if I could enroll in standard one for free, there would be no money for supplies."

Piana, 13, Lesotho

"I live in roofless and damaged former government building with my 14-year-old sister, and my three children—one son and two girls (twins). The oldest is my 4-year old son and the twins are one-and-a-half years old. When I go begging, I take my children with me. My sister goes begging. We eat together what we get."

Refugee girl, 16, Somalia

It has been estimated that 90% of domestic workers, the largest group of child workers in the world, are girls between the ages of 12 and 17 (UNICEF, 2002). The overwhelming majority of these girls are born into large poor families in developing countries. These girls are often sent away from their families to richer households where they work as housemaids for room and

board. Children also work to pay off the debts of their parents (or other relatives). However, often getting out of debt is difficult and the children might be sold on. This very shaky arrangement of working for food or for debt can turn into commercial slavery. For example, children from multibirth families of poor African countries Mali and Benin have been reported to be “borrowed,” “lent,” “sent away for better life,” or simply kidnapped and transported to the somewhat richer country of Côte d’Ivoire to work unpaid on farms or plantations, beaten if they try to run away, or forced into prostitution or drug-pushing (“Slave Ships in the 21st Century?” 2001).

Needless to say there are no accurate figures indicating exactly how many children live lives of slavery or near-slavery. The International Labour Organization estimates that 250 million children between the ages of 5 and 14 work as slaves, mainly in Asia and Africa. In this section of the chapter, we will review the rather scarce literature on developmental circumstance and competencies of child domestic workers.

In general, the literature on children as domestic workers stresses several points of interest. First, the main focus of the majority of the surveyed studies is the physical rather than psychological outcome of child labor (Caesar-Leo, 1999; Wooley & Fisher, 1915). Second, there is an apparent lack of theorization with regard to the place and meaning of child labor, especially domestic labor, as one of the factors of child development (Goodnow, 1988; Hobbs & Cornwell, 1986). Third, the parents send their children away to other people’s houses for pay because they see immediate financial relief for themselves and a better long-term outcome for the child (stating a very low or no return to the family or the child for sending the child to school; Aderinto & Okunola, 1998; Buchmann, 2000; Wilson-Oyerlalan, 1989). Fourth, there is much support for domestic child labor among both the parents and the “employers”: both sides argue that this type of early experience better prepares the child for future life, gives the child more independence, provides them with a taste of urbanization, and allows him or her to have some savings (e.g., Agarwal et al., 1997; Drenovsky, 1992; Khan & Lynch, 1997). Fifth, it appears that in the nonindustrialized world, preventing children from working is likely to make their lives more difficult and their problems worse unless the societies and local communities are able to substitute sources of income and welfare (Mehta, Prabhu, & Mistry, 1985).

In sum, it appears that child labor for pay is yet another understudied domain of child development. Obviously, the importance of this domain in nonindustrialized countries is much greater than in the developed world. Also apparent is the fact that, given the economic situation of the developing world, the issue of child labor will not dissolve in the near future—quite the contrary. The ratio of the speed of the natural growth of the population in the developing world versus the availability of food to support this population suggests that there are going to be even more children forced to live in other people’s homes and work for room and board or work for pay than there

CONCLUSION

The majority of the research on human competence has been carried out in the industrialized world, with the major criterion of life success being that of successful schooling, job placement, and job performance. In nonindustrialized countries (i.e., the majority of the world), however, successful life adjustment often has little, if anything, to do with academic and career success. Consequently, the content of competencies acquired by children in the developing world has to do with what constitutes successful life adjustment in their cultures. In this chapter we attempted to highlight some of these competencies and stress the importance of studying and understanding them. The main point we wanted to make is that the developmental context of acquired competencies is extremely important, and that the competence of a child soldier in Africa to handle a rifle might be developmentally comparable to the academic competence of a child in England. The ultimate life adjustment outcome is determined by a transformational chain of competencies in which the functional meaning of a given competence in a given culture is much more important and developmentally predictive than absolute content of a given competence.

Do we imply, then, that the values attached to traditional competencies related to schooling, job placement, and career success considered to be “key” in industrialized societies and central to the function of many social institutions (e.g., families, child-care centers, schools, and labor institutions) are nontransferable to the developing world? Not at all. Quite the contrary, what we want to do is join with Kagitçibasi (2002) in stressing the importance of advocacy for early enriched child care and schooling—the social inventions designed to develop competencies valued by industrialized societies. We do, however, want to make a cautionary remark: From our point of view, such social inventions will work only if developmental pressure in the societies in which they are established is *for* rather than *against* the manifestations of competencies developed by these institutions. For example, we recognize that many families in developing countries expect their children to work, whether domestically or for pay, often instead of attending school, so that they can contribute to the well-being of the family. Therefore, educational progress can only be accomplished if the value of schooling can become universal, and this can happen only when the developmental pressure imposed on children by their societies is such that academic competencies

are commonly appreciated and accepted. From what the statistics at the beginning of this chapter show, many children in the developing world are not pressured to succeed academically—they are pressured to survive. Thus, it is the positive functional nature of their survival competencies, whether it is handling a rifle, running a street business, or being a servant, that we need to study and understand.

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