CHAPTER 5

RECRUITING CHILDREN FOR ARMED CONFLICT

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DATA ON CHILD RECRUITMENT IN SUB-SAHARAN AFRICA collected by Achvarina and Reich (2006) and Becker's comparison of Sri Lanka, Nepal, and Burma in this volume demonstrate that the proportion of child soldiers varies considerably from one group to another. A wide variety of case studies from around the world also suggests that the welfare of the children employed by violent groups varies across organizations. In this chapter we focus on this variance and examine the patterns of recruitment across different kinds of violent organizations. We also seek to answer the general puzzle of why a group would recruit children to be soldiers.

The Demand and Supply of Child Soldiers

Discussing the demand and supply of child soldier labor may seem callous, but it provides a useful way to think systematically about why an armed group would recruit young adolescents. As detailed in a number of the other chapters in this volume, a variety of factors are associated with the phenomenon of child soldiers. We can categorize these factors as they relate to the supply or demand for children in armed groups.

One structural phenomenon that has altered the demand for child soldiers is the wide availability of new technologies to exploit this especially odious

form of child labor. Cheap, easily available weapons, such as the AK-47, as outlined in the chapter by Peter Singer, diminish the inherent advantages of an adult soldier compared to a child soldier. In this way, new, lighter (but more powerful) weapons increase the ability of an armed group to substitute adult labor with child labor.

Material and nonmaterial incentives play an important role in recruitment and retention in any organization. The chapters by Gutiérrez Sanín, Wessells, Singer, and to some extent Pugel, focus on the way groups recruit and maintain their armies. As these authors point out, some groups determine that children may be easier (through coercion, intimidation, or persuasion) to recruit than adults, given the strategic ambitions of the group. Certainly, groups lacking a clear ideological basis may find it easier to maintain the loyalty, and participation, of children. Desertion is a potential problem facing any army, and children often find it harder to desert than adults. To discourage desertion further, some groups force children to commit atrocities in their home village, thus severing former bonds and limiting the child's options. Clearly, demand-based factors play a major role in the variation across countries. Similar contextual factors affect the supply of children available for recruitment or abduction. Achvarina and Reich demonstrate in their chapter that such supply-based factors—for example, the level of poverty and the number of orphans in a population—poorly explain the variance in the incidence of child soldiering across sub-Saharan Africa. The protection and securitization of civilian populations (especially children) prove to be more significant factors. Indeed, as the chapter by Lischer shows, refugee and internally displaced persons (IDP) camps are prime recruiting grounds for armed groups. Children are particularly vulnerable to the siren call of life outside the camp "fighting the good fight," as well as to forced abduction.

Factors such as poverty, education, war, refugee camp securitization, religious or ethnic identity, family or its absence, and friends all play a role in determining the supply of children available for recruitment (Cohn and Goodwin-Gill 1994; Brett and Specht 2004; Achvarina and Reich 2006a; Singer 2006). The dynamic interaction of a rebel group and the government may also affect supply, particularly when government actions provoke grievances and a desire for retribution. Such supply factors are indeed important, but they neglect demand. To understand the demand for child soldiers, we must look more closely into civil wars and violent organizations, as well as understand what motivates the children themselves. Many of the factors that shape supply are rather invariant across many of the conflicts; demand is what determines the actual number of children who are ordered to kill.

Child Soldiering and Child Capabilities

Analysis of child labor in the context of households and farms indicates that (young) children and adults are likely to be employed as complementary goods, while adults' unskilled labor are substitutes. (Informally, a complementary good is one that should be consumed with another good; for example, a printer and an ink cartridge. A substitute good can stand in the place of another good, such as butter and margarine.) The differentiation of task between younger children and adults indicates a complementarity between child and adult labor in a military organization. Classic historical examples of the employment of complementary child labor in a military organization are evident in the squire (attendant to a knight) in feudal Europe or the many young midshipmen who served actively aboard naval vessels in the age of sail.

The main difference between these historical examples and contemporary employment of child soldiers regards the proportion of child soldiers recruited by armed groups. Historically, children constituted only a small share of total soldiers. Today, as other chapters in this volume demonstrate, a large number of groups rely to a high degree on child recruits. Such large proportions of young children indicate that they are employed as substitutes for adults and not as complements. Our central puzzle revolves around why this shift has occurred.

Evidence of physical maturation of children and their (in)ability to fight effectively is incontrovertible. Whether children fundamentally differ with regard to decision-making ability, emotional maturity, and psychological stability is more difficult to assess. Officers of an armed force that employs children assess the relative capabilities of children and adults both in their recruitment and when allocating tasks (these decisions will vary across cultures and the context in which the organization operates). And in some respects, children may be viewed favorably. A Congolese rebel officer summarizes the three main reasons why children make very good soldiers: "they obey orders; they are not concerned with getting back to their wife and family; and they don't know fear" ("Children under Arms" 1999, 22). Indeed, these three characteristics come up again and again in the studies of child soldiers.

When possessing sufficient physical strength, children may in a technical sense substitute for adults to a degree that is surprising given Western attitudes toward and expectations about childhood. The degree to which they may substitute clearly depends on the nature of the tasks to be solved and decisions to be made. In most countries, children must shoulder adult work responsibilities at an earlier age than is accepted in the West. Iversen (2005, 11), based on his research on child migration in India, reaches a fairly clear conclusion: "boys aged 12–14 regularly made labor migration decisions independently of

their parents and often without the consent or even informing the parents about their departure." Despite many cultural differences, it is also at about this age that children may seek military employment on their own and solve many of the simpler military tasks independently if employed. Before this age, we may assume that children will be more dependent on older soldiers to conduct more complicated tasks and, more significantly, less able to desert. In this regard, children across cultures follow similar patterns despite widely differing cultural and economic conditions.

While children generally lack the physical capacity of grown men, evidence from Blattman (2007) and others indicates that they exhibit certain tendencies that some military leaders unconstrained by any normative concerns might find appealing. If we treat child soldiers as a labor issue, children beyond a certain age can be regarded as substitutes and not as complements to adult labor.

The Context of Children in Armed Conflict

To Clausewitz's famous adage that "war is nothing but a continuation of political intercourse with the admixture of different means" (1976, 605), one could also add "social and economic relations." Wars where children have become active soldiers now typify the wars of today—"a stalemated guerrilla war confined to a rural periphery of a low-income, post-colonial state" (Fearon 2005). These are also areas where children are engaged in all kinds of adult economic activities. In sub-Saharan Africa, the more rural a country is, the higher the child labor participation rates tend to be.

Based on detailed observations from several long field stays, Shepler (2004) documents that many of the specific ways children are employed in violent organizations of present-day Sierra Leone can be traced back to traditional age group organizations, West African child fosterage traditions, secret societies, and so on. Her presentation gives a most detailed description of how established social and economic forms may have impact on the violent organizations and generate prescriptions for how many and in what way children could be used.

What the extensive economic participation of children in rural areas does explain in the broader sense, however, is that children are more likely to become potential recruits when commanders from their own experience are used to seeing children do the household and farming tasks. This is reinforced by the tendency of the violent organizations to emulate the dominant patterns for organizing economic activities in their neighborhoods and families. The most visible manifestation of the copying of family-based organization is a tendency of the male commanders (and often also soldiers) to acquire "wives" in many of the conflicts.[1] Nonetheless, to explain the variation in the proportion of child soldiers in any given conflict, we need to examine more specific mech-

anisms, which are most likely found in the violent organizations themselves. Each organization is likely to have its own ways of adapting the established customs regarding child/adult task allocations when recruiting children. Manners of recruitment and socialization vary from group to group. The dramatic variation in child/adult soldier ratios even for a number of African conflicts all taking place in countries dominated by rural populations is reflected in the figures reported in Achvarina and Reich (2006). How can such large variation be explained?

Violent Organizations and Their Demand for Children

A violent organization's guiding aims (not necessarily its professed ones) in many ways define the behavior of the group, including its reasons for recruiting children and its ways of treating them. Since every organization operates under some form of financial constraint, such organizations should only substitute children for adults if they are cost effective. The only formal theoretical discussions of the recruitment of child soldiers we are aware of are Gates (2004) and Blattman (2007). Gates develops his ideas about child recruitment by means of a principal agent model. Put simply, agents of a military organization (that is soldiers) when recruited on a voluntary basis have to receive sufficient utility by joining that they do not run away (the participation constraint). Furthermore, the leadership (the principal) must be able to find a way to reward the soldiers so that they choose to act in a way that will produce the maximum increase of the probability of winning (or sustaining a "profitable" conflict) with the lowest financial costs (incentive compatibility constraint). Hence the leadership may employ children if they are sufficiently cheap to compensate for their (potentially) lower military efficiency.

In another article, Gates (2002) makes the point that nonpecuniary benefits can be used to meet the compatibility and participatory constraints. Indeed, all groups distribute benefits that exhibit a mixture of pecuniary and nonpecuniary rewards. Pecuniary rewards consist of wages, one-shot monetary rewards (often associated with loot), and other tangible rewards such as drugs or alcohol. Indeed, drugs have played a large role in several civil wars (e.g., Liberia and Sierra Leone). A nonpecuniary reward can come in the form of the satisfaction associated with performing a given task. In a military organization, such functional rewards can come with participating in the "good fight." At the other end of the moral spectrum, groups may appeal to the sadistic tendencies of certain elements of any population (thugs and hooligans) by giving them license to commit acts of extreme violence. Rituals, uniforms, and even dark glasses can aid in creating an altered state, enhancing this sense of toughness, which in turn can promote violence (Slim 2008). But it is also a reality that military fighting might be experienced as exciting, particularly when

the most likely alternatives are either boring idleness or drudgery. When asked why they became soldiers, 15 percent of the children selected for interviews in the Democratic Republic of Congo, Congo, and Rwanda who had joined one of their violent organizations said fascination with the military was their main reason (ILO/IPEC 2003, 29).

Nonpecuniary benefits can also be seen in the comradeship shared by members of an armed group. Spending day and night together in life-threatening situations can create strong bonds between fellow soldiers. Identity-based groups (i.e., organizations based on ethnicity or religion) also tend to be characterized by higher solidarity preferences than other types of groups. Religious mystical groups such as the Lord's Resistance Army (LRA) in Uganda (Veale and Stavrou 2003, 27) and expressive violent organizations (the Revolutionary United Front [RUF] in Sierra Leone) employ mixes of functional and solidarity benefits.

The extent to which a group can rely on pecuniary benefits depends on the group's resource base. Nonpecuniary benefits, alternatively, can be created by the group and can be used to motivate members instead of material benefits. Leaders have an incentive to inculcate a sense of membership and solidarity and thereby construct an identity for their organization. Indeed, all effective militaries depend on nonpecuniary rewards. Indirect evidence from child psychology indicates that nonpecuniary benefits may be more influential for children than adults (Harbaugh and Krause 1999). It may take less effort on the part of the organization to create solidarity norms for children due to their greater tendency toward altruism and bonding to a group (Blattman 2007).

If children's outside options are sufficiently bad such that they will accept a lower compensation in order to join (and stay), this model predicts that a group would focus its recruitment energy on children. For example, André and Platteau (1998), who happened to collect land tenure data from a Hutu village just before the genocide in Rwanda, demonstrate that adolescents were receiving very little land (against established traditions), while older landholding males were overrepresented among the villagers killed. Richards (1996) also notes that an important reason for the recruitment of youths to rebel organizations in Sierra Leone was their lack of access to land (although absolute scarcity of land was less pronounced than in Rwanda). Given the lack of economic opportunities, the children recruited to these conflicts had less to lose in joining the rebel army. Alternatively, if children are easier to supervise such that fewer resources are needed to maintain some aspect of a command structure, this model again predicts that a group would recruit relatively more children than adults. Members of a military group are kept attached to the organization through three forms of incentives: force, nonpecuniary benefits (which are often linked to ideology, religion, or ethnicity), and economic incentives.

All forms of incentives may in principle be present at the soldier level whatever the forms of leadership motivation. When force is applied in recruitment, force will, of course, be one of the incentives for staying, but both nonpecuniary and pecuniary incentives may be applied to some degree in order to reduce the desertion rate. Here children and adults may possibly differ. From experimental evidence we know that children bond more tightly to a group (Harbaugh and Krause 1999). As a result of this reframing, children may "forget" more quickly that they were recruited by force. Socialization and indoctrination thus play a fundamental role in maintaining allegiance to a group that recruits forcefully (Blattman 2007).

Military activities are in the end decentralized activities where both the final killing and the organizational infrastructure around it need to be improvised. Centralized monitoring is difficult because of classical asymmetric information issues. The risks of death and molestation in battles make it rational for the individual to exit before the battle begins. If many do so, the organization will lose and the remaining members will be exposed to larger risks of death. The incentive to exit for an individual will increase with the number of others exiting, hence the sudden switch from collective fighting to collective exiting when it becomes clear that one's side is losing the battle.

The use of economic incentives to manage a violent organization in any precise way is hampered by strong versions of the classical problems of asymmetric information, collective action, and adverse selection: if recruiting soldiers on the basis of expected economic gain, the organization has a higher risk of getting a mix of members who will tend to run away before a battle or during it with any setback of winning prospects; asymmetric information makes it difficult to reward efforts. Result-oriented selective rewards that may avoid battle desertion imply looting, a risky strategy since the organization will lose local support. To prevent severe collective action problems, the use of force to prevent desertion is obviously necessary and remains necessary even when most soldiers are recruited on an ideological, ethnic, or religious basis and they possess a strong sense of solidarity. In general, nonpecuniary rewards motivate actions when motivation is needed, and they are relatively inexpensive to distribute once an organization is endowed with social factors that promote solidarity and functional benefits. By reducing the severe collective action problems involved in actual fighting, functional rewards and solidarity norms can substantially reduce the need for harsh physical punishment.

But as pointed out by Frey (1997) in a general context (and by Weinstein as applied to violent organizations) both external force and economic rewards may crowd out and destroy intrinsic motivation. Moreover, organizations are not able to choose their incentive mix freely. The ability to create or inculcate intrinsic motivations is severely limited. Ethnic, religious, and ideological

identities from which it is much easier to sculpt solidarity are difficult to create. A group, particularly those that are ideologically or religiously based, may develop sophisticated socialization mechanisms that inculcate a fierce loyalty and allegiance to a social movement. Force and economic rewards, however, may be both managed and more easily combined.[2] Hence, one may expect significant differences across organizations as to their mix of pecuniary and nonpecuniary rewards and with respect to how incentives are combined with harsh punishment to prevent disintegration.

The predictions of Gates's (2004) model follow: more children will be recruited if their military efficiency increases relative to adults', if children's income possibilities outside the organization decline compared to the adults' outside options (for example, increasing land scarcity may block children's access to land while adults remain holding the land), or if for some reason the relative cost of monitoring children compared to adults decreases. This will happen, for example, if the fighting is moving farther away from the soldier's homestead, since children have lower geographical mobility. The difference naturally will be larger for younger children. Moreover, if child soldiers are added to a contest function (modeling the conflict between the rebel group and the government), they are by implication (when properly weighed for their lower efficiency) perfect substitutes for adults. Hence, a wide variation in its adult/child composition would not be surprising—for example, caused by shifts in their respective participation constraints.

In this chapter we extend Gates's (2004) work, recasting the focus on military organizations' demand for child soldiers to explaining the extreme variance in the use of child soldiers across groups, even within similar economic and cultural contexts. In particular, we examine the role of force as it is used to abduct recruits and prevent desertion, topics not fully developed by Gates (2004).

Motivations, Group Endowments, and the Demand for Child Soldiers

A dominant theme in conflict research during the last decade or so has been the role of economic factors in causing violent conflicts. For some time this led to a rather fruitless debate over whether greed or grievances served as the chief motivation for groups to take up arms against the state.[3] The general problem is that professed motivations (and alleged motivations) do not necessarily coincide with "real" or ultimate motivations. This is a hermeneutic problem. Can we ever know whether politics or religion provides the fundamental motivation for groups in Chechnya or in the Middle East? Equally difficult is deciding whether money or politics provides the fundamental motivation for other groups, which finance their operations through lootable resources such

as opium, cocaine, or diamonds. Also difficult to determine is whether professed goals are for a broad public who are not members of the military group or for the group members themselves. As in other contexts, the actors may have good reasons for trying to misrepresent their goals (and those of their adversaries). Religion may be a pretext for politics, and politics a pretext for money. The hermeneutic issue is how to impute motivations when statements about motivation may themselves be motivated.

While we may not be able to uncover the ultimate motivation for a group (or at least its leadership), groups do exhibit behavioral tendencies, and we can make assumptions about such motivations on the basis of the resource endowment of a group, which will affect the ability and the form of rewards a group allocates to its subordinates. Weinstein (2007) examines two types of leadership motivation and asks how they may arise and be sustained. He points out that if a rebel movement initially has access to large economic endowments (easy looting, control of diamonds, and so on) compared to social endowments (shared identities, ideology, and social networks) it may drive out political altruism in the organization, a kind of rebellion's natural resource curse. The chapters in this volume by Gutiérrez Sanín and Pugel point to the kinds of variation across groups in these regards.

Selective economic incentives are expensive and most rebel organizations are poor even when their violence activities are the most individually remunerative in the neighborhood. Hence, their leaders will try to restrict the number of members allowed to share in the net income. Again physical punishment is useful to restrict access, but there are also reasons to expect that children are more easily kept away from sharing; thus organizations that rely on economic incentives have more to gain financially by employing children. In Mozambique, for example, Renamo made extensive use of economic incentives when they were receiving substantial economic support from South Africa. When that support disappeared, Renamo began to rely on forced recruitment and to recruit children, some very young. Almost 9 percent of the recorded, demobilized Renamo soldiers were ten years old or younger (Weinstein 2007). In Northern Uganda, where LRA was relying on forced recruitment, the leadership appears to have preferred very young recruits since the average abduction ages increase at the later stages of the war when prospective abductees were more difficult to catch (Blattman 2007).

Both economically and socially endowed organizations may apply force in order to recruit members, but on average one would expect that voluntary recruits of socially endowed organizations would be motivated by nonpecuniary benefits and voluntary recruits of economically endowed organizations would be motivated by material rewards. Indeed, the underlying motivation of an or-

ganization is likely to affect a group's demand for children. Different groups are likely to recruit children for different reasons and to treat them differently once they have joined.

In the preceding discussion we have presented the possibilities in terms of dichotomies, as does Weinstein. There is, however, no inherent reason that a group must distribute material rewards at the expense of nonmaterial benefits. Pecuniary and nonpecuniary benefits are often jointly evident, as when a child defends his own right to his homestead as part of his tribe's control of the right of the land to which his homestead is a part. Moreover, socialization can serve to overcome the nature of a group's resource endowment.

Nonetheless, if economic endowments do serve to crowd out nonpecuniary social benefits as proposed by Weinstein (2007), after a while greed-based organizations may reveal themselves as such and will receive fewer ideologically committed recruits. The fraction that has to be recruited by force will tend to increase over time. While not empirically well documented, children who are recruited by force may have lower desertion rates than adults recruited the same way. This applies more clearly for younger children. It is more difficult for them to desert. Hence, we expect the fraction of child soldiers in small-scale, economically endowed violent organizations to increase over time.

Considering the relative costs of recruitment, the fraction of child soldiers should be considerably higher than in socially endowed organizations. Pecuniary rewards (i.e., money, loot, or other material selective incentives) are often used to entice and to maintain participation (Gates 2002, 2004; Humphreys and Weinstein 2006a; Olson 1971). Moreover, given extensive hunger, poverty, youth unemployment, and the absence of educational opportunities, joining an armed group may be a relatively attractive opportunity, thereby reducing the material incentives required (e.g., Brett and Specht 2004; Honwana 2006; ILO/IPEC 2003; Machel 1996).

In some African countries the main grievances are actually held by the older children and youth, who may have lost traditional access to land and marriage (André and Platteau 1998; Richards 1996). Hence we may expect a large share of children among the grievance-motivated recruits and even among the commanders. In the extreme case of Mindanao, where whole families are actively engaged (Cagoco-Guiam 2002), the share of children may also be quite high (but not in command), reflecting the demographic state of the area, but presumably the younger children will be kept away from the most risky tasks.

In either case, the scale of the fighting is also likely to be important for the share of children to be recruited. If heavy, expensive, and complex weapons or the disciplined coordination of large units of soldiers are necessary, children are less useful. Research on child labor in general suggests that children have rarely been given responsibility for technically complex and expensive equip-

ment. There is no reason to believe it will be otherwise in child soldiering. Indeed, when a group does possess advanced technologies, children are not put in charge. Kids do not pilot helicopters. Furthermore, if the group is engaged in a low-intensity guerilla war, it is easier to organize consumption in the military units in the same way as in ordinary households, so they will include many tasks that are ordinarily performed by children and will demand more children for noncombatant tasks.

Organizations that have developed sophisticated socialization mechanisms are likely to handle collective actions better and therefore to rely less on force as long as the members stay strongly motivated. That motivation embraces not only direct military task solving, but also the motivation to monitor and discipline the other members. Decentralized monitoring is essential in many military situations that are uncontrollable from the command center. The resulting discipline appears to be essential for the welfare of the child soldiers (and women soldiers). Children and youth tend to be at least as strongly motivated as the communities from where they have joined. The leadership would on average need to treat their members at an acceptable level, including the children. In addition to internal reasons for it, some of the political costs of bad treatment and forced recruitment of children will be internalized. The strength of political motivation is fickle, however, and may quickly decline. As pointed out already, these organizations would also need to apply extensive force in order to keep its collective action problems within bounds and to recruit new manpower. The case of Sri Lanka substantiates this point. Internal fighting between northern and eastern Tamil factions has caused the Liberation Tigers of Tamil Eelam (LTTE) forces to lose legitimacy, and they are now applying more force when re-recruiting children, evidently expecting a new outbreak of the civil war (Becker 2004b).

Organizational Structure and the Welfare of Child Soldiers

To gain a better understanding of differences in organizational culture, we examine the application of force as a selective incentive. A violent organization must produce violence as a major part of its output. When the violence apparatus is already there, it is tempting to apply it for other purposes. It may be used both for recruitment of soldiers and as a (negative) incentive for controlling the behavior of the members after recruitment. It is selective in the sense that it is meted out to individuals, but it has also important spillover effects by creating general fear either among members or the population at large. While the spillover effects may reinforce the original selective effects, they are obviously imprecise. The fear may make soldiers more obedient or make them desert. Fear may break resistance against recruitment or increase the efforts of potential recruits to hide.

In his exceptionally well-documented research from northern Uganda, Blattman (2007) examines how the benefits and costs of recruits varied systematically with age. He finds that although adult recruits were generally regarded by the leaders of the LRA to be better soldiers ("more skilled as guerrilla fighters"), "adolescent (twelve- to fourteen-year-old) recruits yielded the largest expected net gain to the rebel leader." One of the principal problems was that adults were more likely to desert. Moreover, "adolescents and younger children were more easily indoctrinated and disoriented (and thus likely to stay) but were relatively ineffective as fighters" (Blattman 2007, 1). Blattman's field research in northern Uganda demonstrates that children respond differently from adults to forced recruitment.

As pointed out in Wiles (1977, 15–16), to make threats of force effective, there must be some form of restraint on physical mobility. It is much easier to run away from a military organization operating in an unclear or divided area of control than it is from a jail or an area under strict control. The lack of mobility of young children relative to adults makes force more efficient in their case. Forcing children to perform abhorrent public killing against, and in front of, former neighbors is one way to restrain mobility.

Mutual monitoring induced by the shared negative consequences of desertion is a further barrier. Organizations such as the RUF in Sierra Leone established a buddy system, in which children are paired. If a child's buddy deserts, the remaining child is punished, with the penalty often being death. A violent organization needs to consider the effects of any given mix of incentives and its recruitment mechanisms when choosing its child soldier ratio.

Another important organizational variable is the degree to which the structure of the organization is personalized. Children may more easily adjust to the latter form of management, which may be one of many reasons why child soldiering is mainly observed in poor countries where a personalized management style is still quite common. As pointed out by Weinstein (2007), violent organizations with high social endowments are likely to use it to greater advantage and receive a higher share of voluntarily recruited children. Shepler (2004) describes how personal ties to commanders were important both in the recruiting and management of children in Sierra Leone. Children's need for security, to have someone to love and respect, may be transferred to military commanders.

An obvious factor is the nature of war and the kind of violence the children become involved in personally. "Indoctrination into the LRA was a complex process of spiritual training, misinformation, and the strategic use of fear and violence" (Blattman 2007, 18). Shepler describes a similar process in the RUF in Sierra Leone (2004). Further, as a means of breaking down the recruit's

psychological defenses, adolescent recruits are often forced to engage in violence, particularly in their home community, thereby foreclosing an option of escaping and returning home (Honwana 2006; Singer 2005). While the study on Central Africa did not ask in a systematic way about the punishment the children were exposed to in case they disobeyed, a regime of harsh punishment and fear among the children evidently prevailed. Fear was both a cause for staying as well as for joining.[4] When the children from Mindanao, on the other hand, were asked what happened if they did not follow orders, 62 percent answered nothing would happen. Their participation was voluntary. Indeed, the atmosphere in Mindanao appears strikingly different than in Uganda, as does the welfare of the children who joined. Since the children who joined the Mindanao movement could stay in their home area most of the time, they did not lose contact with their family and could also even (with some interruptions) continue their studies at school.

The Market for Child Soldiering

To best understand why there are so many children participating in some military organizations and few or none in others, we need not only look at demand and supply in isolation but also examine how supply and demand interact. Children's voluntary supply and the area characteristics—the ease with which they may be recruited by force—constitutes the supply side. While Gates (2004) presupposes an equilibrium solution, even though the supply side of his model is extremely rudimentary, such an equilibrium condition may not exist. Given the possibility of forced recruitment as well as the high child unemployment rates in many areas in which the violent organizations operate, the child soldier ratio may not be an equilibrium outcome, although that is certainly a possibility. Indeed, while it is possible that the market for child soldiers is efficient, it is unlikely.

Situations of pure excess demand occur when a violent organization tries to get more recruits than it is able to acquire of both adults and children. Here the supply side should determine the child/adult rate.[5] If, for some reason, a violent organization refrains from the use of force when recruiting both adults and children, then the child/adult ratio will be determined by the voluntary supply functions. The supply of child soldiers relative to adults will be affected by the distribution of landownership and prospects of inheritance for children, the stock of orphans,[6] family cohesion, child poverty levels (which will be influenced by differential birth rates by different sectors of the population), child unemployment rates, and so on. In addition, children's expectations about their welfare after joining the violent organization are important and may also differ from those of adults. Excess demand situations may also arise in the final

days for a military force that is losing. Nazi Germany and the American Confederate army both employed child soldier volunteers as well as senior citizens in the final days of those odious regimes.

Excess demand may be resolved through forced recruitment, but an organization still may be unable to obtain all the recruits it demands (when forced recruits are not paid, demand may increase). In such a case, the child soldier ratio will be influenced additionally by the characteristics of the accessibility of recruits, including the proportion of usable children versus adults in the area; the ease of capturing a child compared to an adult; and the existence of exceptionally good "fishing grounds," such as refugee camps or secondary schools. Even in this case the perceived excess demand will be influenced by the nature of the military contest. For example, in the face of losing battles, an organization is likely to experience excess demand.

For groups with well-developed socialization mechanisms and with the ability to meet participatory and compatibility constraints through the distribution of functional rewards and solidarity norms, a condition of excess demand will also mean that supply conditions dictate. We expect to see no significant differences between socially and materially endowed groups under conditions of excess demand.

Under conditions of pure excess supply situations, the characteristics and the policy of the violent organization will determine the child soldier ratio. The leadership's view about the desirable ratio will be instrumental. Let us again look at a couple of cases. When a violent organization relies only on voluntary recruitment methods and the distribution of economic incentives, excess supply means that at the going rates the organization may recruit as many children and adults as it wants as long as it is able to meet the participation and compatibility constraints of the recruits. Hence, the leadership decides the number of children (and, by implication, the child/adult ratio) on the basis of the expected profitability (taking into account the chances of victory in military contests) of their numbers and their mix. The child/adult ratio in this situation is based on cost and efficiency. Assessing the relative cost efficiency of assigning children or adults to a range of tasks would be critical. Fighting would constitute only one of these tasks.

The case when a violent organization also recruits forcibly is in many ways quite similar. One may of course question the use of the term "excess supply" in cases when force is used. The idea is that the recruitment area contains such rich fishing grounds that it is always able to catch the desired proportion of either adults and/or children and could acquire more on the same terms if the group so desired. The size of the organization may be constrained either by a lack of capital (especially with regard to the ability to acquire weapons) or by

the nature of the war (especially with regard to its intensity and duration). The choice of the desired ratio is also in this case determined by the cost effectiveness of children compared to adults, but the ratio is likely to be different. Furthermore, the optimal child soldier ratio will be higher in forced recruitment situations for the reasons outlined above regarding the general differences between children and adults, confirmed by the Uganda case.

When a group decides on a recruitment method, the possible interference on the cost efficiency between the methods should also be considered.[7] In any case, the observed child soldier ratio will be determined as a kind of average of the forced and voluntary rates of recruitment.

For groups with well-developed socialization mechanisms in a situation of excess supply, recruitment is more selective. Under such conditions, ideological, ethnic, and religious criteria may be imposed in addition to a soldier's ability to engage in violent activity. Children are likely to be viewed as second-best labor and fewer of them will be recruited. Forced recruitment is also unlikely to be employed. Such organizations operating under conditions of excess supply will tend to have low child/adult soldier ratios.

If a group is richly endowed both socially and materially, Weinstein's argument that material endowments will crowd out social endowments is unlikely to occur under conditions of excess supply. Because groups can be picky, they will choose those soldiers most positively predisposed toward certain nonpecuniary benefits (while taking into account the soldiers' abilities). Identifying which individuals are more positively predisposed toward solidarity norms and functional benefits will be easier for identity-based groups in which the criteria for selection is based on already belonging to a particular ethnic or religious group. For purely ideological groups, candidates may have to demonstrate their commitment to the cause, particularly through sacrifice.

When supply and demand reach equilibrium, marginal conditions dictate recruitment patterns. Equilibrium may occur under different child/adult soldier ratios depending primarily on the nature of the war being fought. Military organizations engaged in direct competition with many battles will favor adults over children regardless of the nature of their resource endowment. Groups will also distribute a mix of pecuniary and nonpecuniary benefits to ensure that members' participatory and compatibility constraints are met. These conditions follow more directly from Gates (2004), such that the child-soldier ratio will increase as children's military efficiency increases relative to adults', children's income possibilities outside the organization decline relative to adults' outside options, or the cost of monitoring a child relative to an adult decreases.

Summary

In order to understand the phenomenon of child soldiers, we also must understand the nature of the market for soldiers in general for both governmental forces and for groups fighting against the state.

Most research on the phenomenon of child soldiers has focused on factors that affect the supply of child soldiers (i.e., the relative proportion of children available for recruitment). The main argument of this chapter is that to understand the great variation in the child/adult ratios across military organizations, we must look at the demand for child soldiers in addition to supply factors. This point is echoed in the chapters by Gutiérrez Sanín and Pugel. Several variables play a key role in determining violent groups' demand for child soldiers. The organizational structure of the military group is especially important. Groups based on personal leadership are more likely to have a higher child/adult soldier ratio. The nature of a group's resource endowment is also an important factor, especially under conditions of equilibrium and excess supply. If a military group is unlikely to engage another army militarily, the physical differences between adults and children are minimized and they become substitutes for one another.

We do not mean to imply that contextual factors are irrelevant; however, such variables may not impact the child/adult soldier ratio directly. As described by Fearon (2005), long-lasting low-intensity conflicts fought by violent organizations operating in rural neighborhoods are explained by a variety of political and economic variables. Moreover, the contextual factors highlighted by the chapter by Achvarina and Reich, such as the orphan rate and the level of poverty in the area, dictate the supply of children that can be recruited voluntarily by a military group. These conditions, however, do not vary much from one war zone to another (though refugee and IDP camp securitization does). Indeed, supply factors alone cannot explain the big variance in child-soldier ratios across violent organizations operating in similar areas. Moreover, the fluctuations in the fortunes of war can cause strong shifts in supply and demand (when losing, the demand goes up and supply down). Ultimately though, the child-soldier ratio is determined mainly by the policies and characteristics of the organizations themselves, not by the characteristics of the areas in which they operate.