THE YOUNG AND THE RESTLESS: DYNAMICS OF VIOLENT YOUTH

MOBILIZATION IN SRI LANKA AND NICARAGUA, 1960-2010

By

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DEDICATION

This project is dedicated to my family, especially to my beloved wife, Amy, and my children, Ian and Elena, who have sacrificed so much in support of its completion. The ideas and outcomes this research promotes are dedicated to the courageous young people in Sri Lanka and Nicaragua (and around the world) who have chosen the difficult road of nonviolence in their struggle for a better life and a better shared future.

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ABSTRACT

What are the factors that motivate youth to take up arms and mobilize in

organized violence? That is the central question of this project, applied to two case

contexts, Sri Lanka and Nicaragua. The project's integrative system dynamics

methodology synthesizes competing causal explanations that are often considered in

isolation within the literature. Three mechanisms are hypothesized to influence the

"attractiveness" of armed mobilization for at-risk youth sectors: 1) *Groups and Identity*;

2) *Grievances and (Perceived) Injustice;* and 3) *Greed and Incentives,* with expected

shifts across time and institutional context. Causal loop diagrams communicate the

model's conceptual framework, key variable relationships, and interactive feedback

effects across mechanisms. For purposes of testing, the model is contextualized to initial

values for both cases, simulated across time (1960-2010), and then examined against the

available empirical data for Sri Lanka and Nicaragua. Case illustrative narratives link

quantitative and qualitative analysis of violent mobilization (and demobilization) for

targeted historical periods. In Sri Lanka, analysis highlights the relative "attractiveness"

for Sinhalese young people joining armed insurrections of the JVP (the "People's

Liberation Front", a radical Maoist group with Buddhist roots), or for young Tamils joining ethno-nationalist armed groups such as the Liberation Tigers of Tamil Eelam. In Nicaragua, model analysis traces the "attractiveness" of youth joining Marxist-nationalist *Sandinista* revolutionaries in the 1970s, with counter-revolutionary (*Contra*) forces in the 1980s, and fragmented neighborhood gangs from 1990. Project results show strong correspondence between the applied model simulations and the case historical record, for estimating the number of youth militants and their period-specific causal factor explanations. Model "leverage points" are highlighted across both cases, and then applied to a shadow case study (Israel-Palestine) as a proof-of-concept model extension (without simulation). From there, the text offers critical discussion of model limitations and potential extensions, and delineates key implications for policymaking, programming, and peacebuilding applications. The project concludes by highlighting the necessity of considering multiple causal explanations for a comprehensive understanding of armed youth mobilization. Moreover, it provides a systematic and rigorous framework to test these explanations' relative strength and their variance across time.

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CHAPTER 1

THE QUESTION OF VIOLENT YOUTH MOBILIZATION

What are the factors that motivate young people to take up arms and mobilize in organized civil violence? This question has long challenged both scholars and policymakers, and each generation has contributed its own conflicting explanations, threat categories, and policy responses. The question's relevance today (and its continued impenetrability) is demonstrated in the fear-filled narratives of "child soldiers" across global media, in the hand wringing by government officials from Columbine to Cairo to Colombia, and in the ideology-infused debates that continue across a wide range of academic disciplines.

The "big question" of violence causation is central to this research project. Its primary country case studies are Sri Lanka and Nicaragua, nation-states separated by geography, history, and cultural traditions, yet linked by a shared familiarity with youth violence over the last half-century.

Brief Overview of Country Cases

For the Sri Lankan country study, the project focuses attention on a pair of youth-involved armed movements that were able to mount serious challenges to state institutions over a period of several decades. The more globally renowned was headlined by the *Liberation Tigers of Tamil Eelam* (LTTE), which is better known as the "Tamil Tigers". Until its recent defeat by the Sri Lankan military, the LTTE (and an early cohort of related armed organizations) mobilized youth from the minority

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Tamil-speaking community in a long separatist struggle for a nationalist homeland in the island's northern and eastern regions.[1]

Meanwhile, a second armed movement, not as recognized globally and yet impactful on the lives of island residents, emerged from the "People's Liberation Front" (*Janatha Vimukthi Paramuna*, or JVP). Twice in a period of less than twenty years, the revolutionary JVP mobilized disaffected youth from the majority Sinhala-speaking community in its coordinated attacks on public institutions and targeted government officials. To market insurrection, group leaders tapped dense Sinhalese social networks and borrowed discursively from Maoist revolutionary ideology as well as traditional Buddhist lore.

Whereas the separatist armed struggle of the LTTE effectively challenged the Sri Lankan authorities for more than two decades, security forces were able to quickly suppress the revolutionary uprisings of the JVP when fully committed by the state. In recent years, the ever-evolving JVP, like a phoenix from the ashes, has re-emerged as an influential niche "broker" in mainstream democratic party politics, mobilizing voter support (not unlike earlier insurrection strategy) among marginalized Sinhala youth (Hettige 2010, 95-100).

Figure 1-1 demonstrates the empirical patterns of youth participation in Tamil and Sinhalese non-state armed groups over an extended time horizon. The reference historical data presented here, featuring periods of rapid growth (by both cohorts), rapid decay (both cohorts), and steady state maintenance (only by the LTTE), has

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1. The Tigers, finally defeated in 2009, were one of several groups active in initial stages of Tamil armed struggle, as detailed in Chapter 4 discussion of Sri Lankan youth mobilization.

been estimated by triangulating available qualitative and quantitative data culled from

a wide variety of sources.[2] In Figure 1-1, Tamil youth are characterized by dotted

lines and Sinhalese youth by solid lines, regarding their armed group participation.
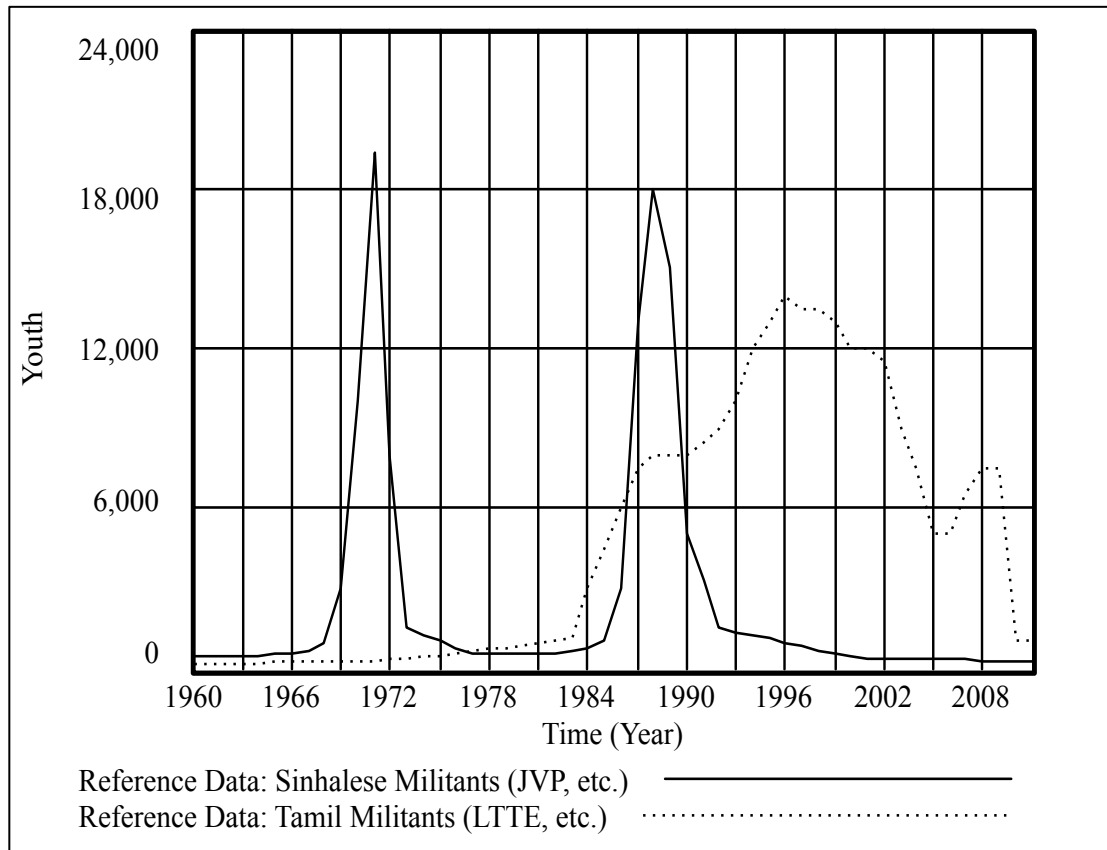
Figure 1-1. Sri Lanka reference data: Youth participation in non-state armed groups, 1960-2010.

For the Nicaraguan country study, the research project examines another

contentious historical timeline, including three distinct examples of armed youth

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2. Triangulation refers to "cross-checking data from multiple sources to search for regularities in the research data (O'Donoghue and Punch 2003, 78)." Studying diverse qualitative and quantitative inputs allows a researcher to "to map out, or explain more fully, the richness and complexity of human behavior by studying it from more than one standpoint (L. Cohen and Manion 1986, 254)." See useful discussion of mixed methods and data triangulation by D. Collier et al. [eds.] (2004) and Harriss (2002), among others. Project data sources are discussed in Chapters 2 and 3, with reference tables and full model documentation available online in the data archive of this project (M. Hamilton 2012).

mobilization in the last half century. First considered is the *Frente Sandinista de Liberación Nacional* (FSLN), known globally as *Sandinistas* or *los Muchachos* (the Kids), a revolutionary group with Marxist leanings that mobilized mass armed resistance to a repressive, unpopular central government in the late 1970s. The *Sandinistas* surprised the world by successfully capturing state power in 1979, sharing early coordination with other opposition actors (although many of these relationships soon soured).

The revolutionary regime change that swept through Nicaragua in the 1980s contributed to the emergence of a second armed youth mobilization, this time waged by a consortium of counter-revolutionary groups. Referred to collectively as *Contras* or *la Resistencia* (the Resistance), these disparate armed groups leveraged pockets of fear and frustration with the revolutionary upheaval of the Nicaraguan state. They harnessed Cold War-era financial support from the United States (US) to mobilize rural and indigenous youth in a civil war against security forces of the newly governing *Sandinista* regime.

Finally, a third example of armed youth mobilization emerged against a backdrop of "democratic peace". *Pandillas* (urban street gangs) expanded in the postwar period with organizational structures more fragmented and less political than revolutionary and counter-revolutionary predecessors. Gang leaders were able to leverage political corruption, a rolling back of state security infrastructure, and bleak economic prospects prevalent since the peace accords of the late 1980s.

Figure 1-2 displays empirical patterns of youth participation in varied non-state armed groups in Nicaragua from 1960 to 2010. Included here is the *Sandinista*

mobilization (highlighted before 1979), *Contra* mobilization (occurring during the

1980s, with limited holdover until the mid-1990s), and *pandilla* mobilization (with

emphasis from 1990 to the present). As in the Sri Lanka case, reference data has been

estimated by triangulating qualitative and quantitative data from varied sources.
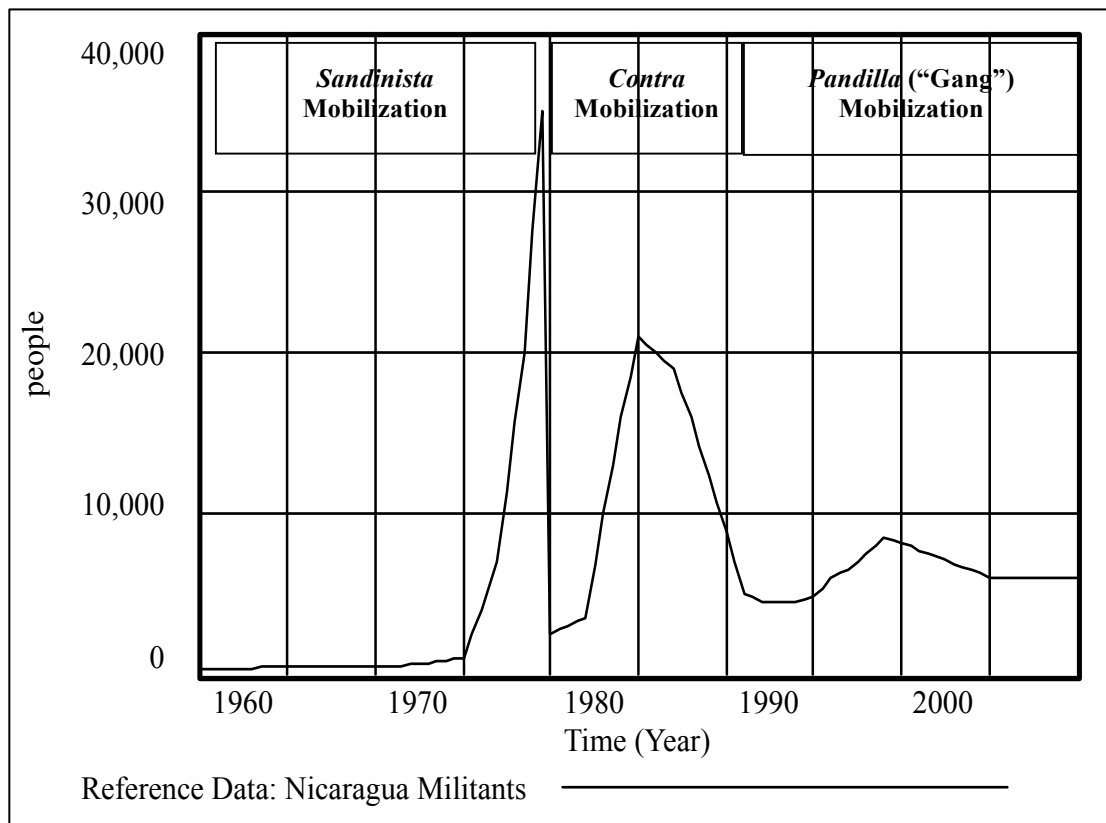
Figure 1-2. Nicaraguan reference data: Youth participation in non-state armed groups, 1960-2010.

Research Questions and Project Overview

Four major research questions focus the project's inquiry of violent youth

mobilization for selected country case studies (with potentially broader applications):

1) Is it possible for a comprehensive theoretical model to explain the general empirical patterns of growth and decline observed in the number of young people who have actively participated with non-state armed groups in Sri Lanka and Nicaragua over the last half-century?

2) What are the most salient explanatory factors or causal mechanisms that influence the "attractiveness" of youth participation with these non-state armed groups?

3) Does the explanatory value of these causal mechanisms vary across the different forms of armed mobilization and distinct institutional contexts analyzed in the country studies?

4) What are the lessons learned from modeled case studies that may be of utility for other global cases of violent youth mobilization?

In response, the project offers a holistic model that incorporates competing theoretical explanations otherwise considered in isolation within the literature. Its hypotheses[3], developed more fully in Chapters 2 and 3, make the following claims:

A) Patterns of youth participation with the diverse forms of non-state armed groups in Sri Lanka and Nicaragua over the last half century can be explained and modeled according to the interactive system effects of three principal causal mechanisms: 1) *Groups and Identity, 2) Grievances and (Perceived) Injustice, and 3) Greed and Incentives.*

B) These three mechanisms together influence the "attractiveness" of armed mobilization for relevant youth populations, and the year-to-year shifts in their relative explanatory value can be traced through analysis of feedback effects in the broader system.

C) Effective youth policy requires not only treatment of the readily apparent symptoms of the currently dominant causal mechanism, but also preventative appreciation of broader system dynamics and potential feedback effects from other, often ignored mechanisms.

Together these research questions and corresponding hypotheses provide the project's organizing logic. As an overall introduction, Chapter 1 continues by offering generalized background information. It addresses the relevance of youth analysis and reviews three major theory clusters from the multidisciplinary literature, underscoring

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3. In system dynamics vernacular, the "dynamic hypothesis" refers to a narrative explanation of model structure and simulated behavior, usually offered in response to a given research question or scenario. In this case, a chain of research questions is complemented by inter-related hypotheses.

competing research paradigms and causal explanations for violent youth mobilization.

Chapter 2 outlines the project's methodological framework and its systems analytic

approach. It clarifies the process of synthesizing an integrative model and identifies

key mechanisms and causal factors deemed crucial to mobilization "attractiveness".

Chapter 3 describes the research methodology in detail, examining each of the three

interacting mechanisms that comprise an original system dynamics model. Chapters 4

and 5 then test the utility of this conceptual model against historical case empirics for

Sri Lanka and Nicaragua, analyzing the alignment of model-simulated results with

patterns of organized youth violence in both country cases over an extended time

horizon. To conclude the project, Chapter 6 reviews its general findings, the model's

limitations, applications to other cases, and potential paths for future research. It also

delineates implications of findings for contemporary policymaking and programming,

including a brief discussion of relevant peacebuilding and development applications.

<u>General Background Information: The Relevance
of "Youth" and State of Knowledge
on Violent Mobilization</u>

Before delving into discussion of the project's systems methodology and data

sourcing strategies (following in Chapter 2), it makes sense to consider two critical

background questions. First, why prioritize the category of "youth" in the study of

civil violence? Second, what are the key debates that characterize the literature and

the contemporary state of knowledge on violent youth mobilization? Responses to

this pair of queries comprise the remainder of this chapter.

The Question of Relevance:
Why Prioritize Youth Analysis?

When one examines periods of transition in modern world history, it is young faces that rise to the forefront.[4] For example, young people played a crucial role in Martin Luther's sixteenth century Reformation movement that challenged Catholic hierarchies throughout Europe. And young people acted as key agents of political and economic transformation during the tumultuous years of the French Revolution and the Industrial Revolution.[5] Across time and across geographic contexts, youth have dominated ranks of warriors fighting for national liberation, soldiers organizing for imperial conquest, and activists struggling for civil rights, among a wide array of global social movements.[6]

Youth as Key Actors in Sociopolitical Change

Today, youth continue to be mobilized into a wide array of political activities around the world. They serve in rebel militias and in state militaries, they facilitate dialogues and protests, and they access formal political channels as well as leverage

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4. Moller (1968, 237-260) offers a broad historical backdrop of youth roles in modern history, including the Protestant Reformation, although his work has been critiqued in recent years for its controversial psychosocial reasoning. Still, in the words of Glinski (1998, 31), "The young generation is traditionally seen as one of the most dynamic mediums of social change."

5. For influential discussion of the institutional-demographic features of early modern revolutions, see Goldstone (1991).

6. Scholars have chronicled youth mobilizing for political liberation and nation building projects in Europe (Glinski 1991; Goldstone 1991; Kuzio 2006; McEvoy-Levy 2001a; Moller 1968; and Popovic et al. 2006; etc.), Africa (Abbink 2005; Brennan 2006; Burgess 1999; 2005; Coulter et al. 2008; Dorman 2005; Ivaska 2005; Jok (2005); Konings 2005; and Marks 2001; etc.), the Americas (Ackerman and Duvall 2000; Booth 1991; Brockett 2005; and Wood 2003; etc.), Asia (Ackerman and Duvall 2000; Mulmi 2009; Schock 2005; Schwartz 2010; etc,), the Middle East (Barber 2001a; 2001b; J. Cohen 2006; Ottaway and Hamzawy 2011; Rosen 2005; J. Ryan 2007; Watkins 2011; Wolman 2008; etc.), and beyond. Regarding youth roles in imperialist expansion, consider the Nazi youth mobilization leading up to World War II (H. Becker 1951; Brunauer 1935; and Kunzer 1938; etc.).

more fragmented informal, criminal, and gang networks. Across diverse contexts, young people can be understood as key *engines* of sociopolitical change, if not always the primary *engineers*. When effectively mobilized – by ideational leaders and power brokers in government, civil society, and/or militant networks – youth provide much of the crucial energy and mass power to get wheels turning for divergent vehicles of social and political change.[7]

Youth Political Roles Understudied

It is amazing, then, that there is so little systematic research on youth affairs in the contemporary social sciences. What work has been done, in isolated fields of sociology, anthropology, criminology, geography, political science, and psychology, usually tends toward extremes of large-n datasets, local ethnographies, or polemic commentaries on "youth threats" to social order.[8] For many years, policymakers and scholars have not adequately explored the diverse roles played by young people in civil conflict situations and in more peaceful forms of socio-political transformation.

Fortunately, though, influential global institutions are now beginning to take notice of young people. A *World Development Report* released in the last five years by the World Bank (2007) focused attention on the needs and the transformative potential of "the next generation" for global development, while the United Nations

7. According to Glinski (1998: 31), youth "play an important and even dominant role" in social transformations and often act as "the driving force behind these changes." See related youth mobilization arguments in the work of Boyden and de Berry (2004); Daiute et al. [eds.] (2006); McEvoy-Levy (2006); Schwartz (2010); Sommers (2007); and Wessells (2006b), among others.

8. See discussion by Daiute et al. [eds.] (2006); Giroux (2009); Hendrixson (2004); Sommers (2006a; 2006b); and Wolf [ed.] (2001), among others, on contemporary gaps in youth-focused studies and policy dialogue. As for the broader lack of integration across disciplinary boundaries in the social sciences and divergent theoretical paradigms, see D. Collier et al. (2004); Harriss (2002); and Hickey (2005). Weinstein (2007) offers a balanced approach to the study of civil wars that merits replication.

(UN) increasingly provides a more responsive clearinghouse for youth research and advocacy, as demonstrated in its series of *Youth Reports* (UN 2003 and 2005). Still, even these institutions fail to highlight security implications of youth "insecurities".

Youth Demonization Common

During the revolutionary upheavals of the 1960s and 1970s, a period of great demographic change, social scientists often painted the image of an "angry young man" in writings on social integration and security (Esler [ed.] 1974; Gurr 1970; and Moller 1968; etc.). Today, mainstream scholarship and global media tend to target other metaphorical images and stereotypes. However, discourses about global terror networks, radical social movements, and undocumented migrants remain replete with age and gender subtexts.[9] The "angry young man" of the 1960s has been resurrected in contemporary visions of *al Qaeda* militants, anarchist activists, and law breaking *migrantes*. They tend to be feared and treated as threats to the self-identities, social narratives, and consolidated power base of those who seek to conserve the status quo.

This project takes measures to avoid prejudicial generalizations and politics-infused stereotypes. Nevertheless, it does underscore the dire consequences for state and civic institutions that ignore youth needs and desires. There are implicit security threats of not addressing the identities, perceived injustices and incentive structures of at-risk youth.[10] These failures are deepened when alternative movements and

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9. A number of writers have strongly critiqued what they consider the demonization of young people by would-be "security demographers", a theme discussed in the next section of this chapter. See Hendrixson (2004) and Sommers (2006a; 2006b), among others.

10. According to Abbink (2005, 3), youth are key agents in "(re)shaping social relations and power formations" in Africa and around the world.

organizations (nationalist, ethno-religious, or even criminal) are able to build the

necessary resource base and embedded networks to tap youth hopes and discontent.

Youth Caught in Web of Transitions

The category of "youth", despite its sticky definitional difficulties and its great

contextual variance, deserves special attention in discussions of conflict, development

and peacebuilding.[11] Young people, whether they are depicted by their chronological

age or their socially constructed roles, offer their communities a unique combination

of social vulnerabilities and transformative potential. "Youth" as a category is a

moving target, and when a given cohort is caught within its "webs of significance"

(Geertz 1973, 5), participants' lives tend to be defined by a series of uncomfortable

and uneven cultural transitions, as visualized in Figure 1-3.[12]

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11. Many scholars have outlined the difficulties in defining the parameters of "youth" (e.g., Durham 2000, 113-120; Shepler 2005c, 197-211; United Nations Development Program - UNDP 2006, 15-16; and Wessells 2006b; etc.). Nevertheless, youth analysis remains central for these authors and a host of other peacebuilding, human rights, and development scholars (see Del Felice and Wisler 2007; Dowdney [ed.] 2005; Drummond-Mundal and Cave 2007; Guyot 2007; Maira and Soep 2005; McEvoy-Levy 2001a and 2001b; Mclean-Hilker and Fraser 2009; and Sommers 2006a; among others). Regarding common youth distrust of the older generation, see Burgess (1999); Gibbons and Stiles (2004); Esler [ed.] 1974; International Crisis Group (2003); Siegfried (2005); Straub (2008); etc.

12. The project's operational definition for "youth" is discussed in Chapter 2 and treated more specifically in Chapter 3 text and footnotes.
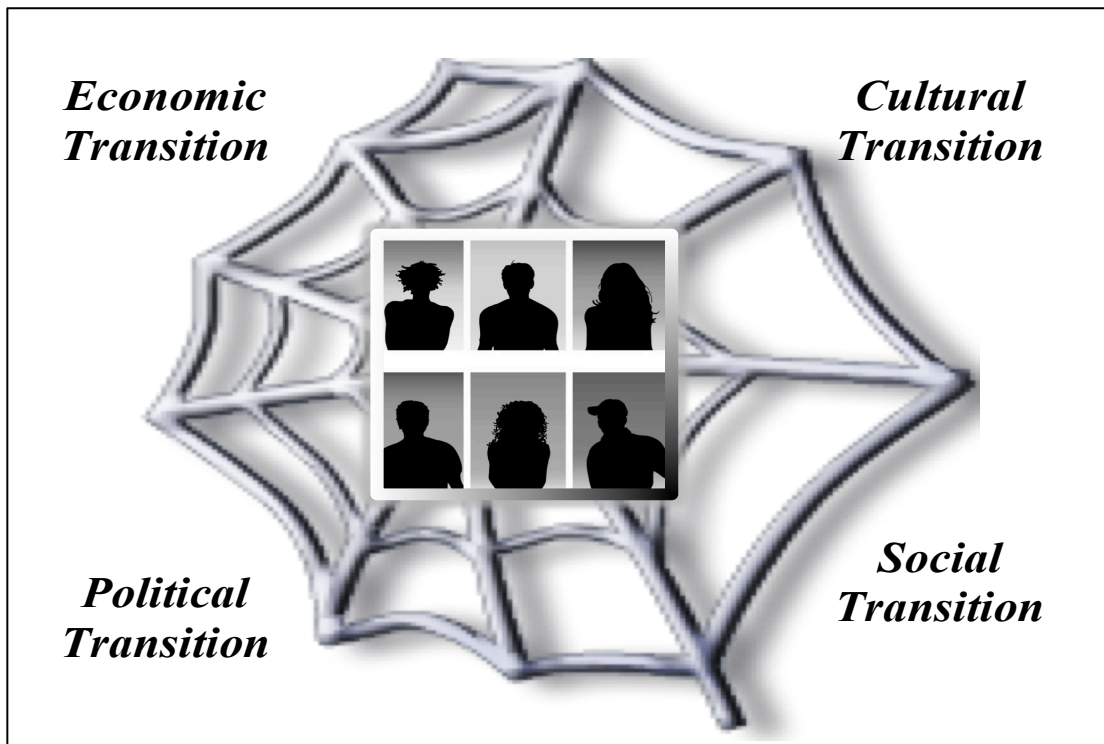
Figure 1-3. Web of youth transitions.

As shown in Figure 1-3, young people enter an adult world with unfamiliar

political, sociocultural, and economic responsibilities. Caught between the normative

protections of childhood and presumed privileges of adulthood, youth tend to occupy

a relatively low position in the social pecking order.[13] Moreover, for youth coming of

age within marginalized social groups or in contexts rife with political violence or

social upheaval, these life transitions can be even more challenging.[14]

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13. Children in many cultures enjoy a protected place in the community (in normative terms, if not everyday realities). Abbink (2005, 2) discusses an African paradox: whereas children are "highly valued by adults", interest and care declines when a child enters the transition phase of "youth". Within NGO sectors, youth receive less global attention than children regarding their rights and opportunities. See also Mclean-Hilker and Fraser (2009); United Nations – UN (2003, 55-66); etc.

14. The Women's Commission for Refugee Children and Women (2005), UNDP (2006), and Global Youth Action Network (2007) highlight the challenges faced by youth in conflict zones. On a related note, see Shepler (2005c) and Labonte (2008) on the unintended consequences of implementing protection-oriented rights regimes, which often treat children and youth as victims rather than agents.

In many settings, youth experiences, actions, and perspectives are treated as "secondary in importance" to adult views (Maira and Soep 2005, xv). Their opinions often go unheard by community leaders (even by many social scientists) unless raised as a revolutionary cry or as an articulated threat to the social order.[15] This is not to suggest that young peoples' first response is to join an armed group, nor that youth are inherently violent. Rather, when conflict does emerge, whether violent or non-violent, young actors are likely to be well represented within the skirmish. This makes youth mobilization central to an understanding of global conflict dynamics.[16]

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Exploring the Relevant Literature on
Violent Youth Mobilization

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Recognizing the crucial role of young people in diverse social and political transformations, including global conflict, another project-relevant question emerges: "Why do they take up arms?" What are the key circumstances or factors that drive young people to participate in organized acts of civil violence? A review of the multidisciplinary literature unearths competing rationales to explain violent youth mobilization. Theories engaged – diverse in scope, depth of argument, and case analyses – can be synthesized into three explanatory clusters:

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15. Youth violence can be understood as a strategic form of political communication, utilized when other outlets have been closed off or are perceived as ineffective. See work by Hoffman (2006, 3); P. Richards (1996, xxiv; 2005, 3); and Tilly (2003), among others. Still, creative attempts at nonviolent articulation are commonplace in the world, demonstrating youth resilience even in the face of difficult circumstances (Sommers 2006a).

16. Richardson (2005, 39-72) offers good integration of development and security literatures. He posits five insights on youth-conflict linkages (Ibid, 573-588): 1) it is difficult for states with high youth populations and deep social cleavages to balance stakeholders interests across age cohorts; 2) state demonization campaigns tend to discriminate against minority and marginalized youth; 3) states with stagnant economies lack enough jobs to go around or safety nets for those left out; 4) state jobs usually favor the age-entrenched over young competitors; and 5) young people, especially young men, lack options in the private sector because global corporations are seeking greater labor force flexibility.

1) *Groups and Identity* causal explanations;

2) *Grievances and (Perceived) Injustice* causal explanations; and

3) *Greed and Incentives* causal explanations.

Groups and Identity Theory Cluster: Security Demographics and Polarized Networks

The broadest of the three theory clusters focuses on *Groups and Identity* as the explanatory catalysts for violent youth mobilization. A *Groups* orientation incorporates, on the one hand, arguments for demographic risk and, on the other, arguments for the primacy of social networks and identity-infused polarization. A common element for both sub-clusters is their emphasis on belonging: both streams claim that people are defined by their groups and mobilize accordingly.

Security demographics

Demographic explanations for violent youth mobilization tend to emphasize population risk factors, especially "youth bulges". In the controversial field of "security demographics", a host of scholars claim that where we see a preponderance of youth in a given population, the probability for violent conflict necessarily rises (although this correlation lacks full explanatory power).[17] Some of the most vociferous "youth bulge" proponents argue a sort of biological determinism, implying that unattached youth, particularly young men, tend to be inherently violent and

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17. Moller (1968) and Fuller (2004) are scholars associated with the "security demographic" argument. See targeted critiques by Durham (2000); Hendrixson (2004); and Sommers (2006b) as well as nuanced discussion by Urdal (2004 and 2006) on the salience of "youth bulges" for civil violence.

unstable.[18] Other analysts focus on "generational consciousness".[19] Finally, the most integrative of demographic arguments highlight dual threats of institutional crowding and lack of opportunity (political, social, and economic) for large youth cohorts.[20]

Statistically, in countries where the population cohort between the ages of fifteen and twenty-nine years old comprised more than forty percent of the whole, there was almost three times the likelihood of civil conflict as countries with lower percentages.[21] According to Urdal (2004: 16), a young age structure offers potential to boost economic growth (as seen during the East Asian economic boom of the late twentieth century), but he also warns that a "combination of youth bulges and poor economic performance can be explosive."[22]

Polarized networks

Beyond demographics, another group-based rationale highlights the primacy of identity networks to explain dynamics of violent youth mobilization. According to proponents of this theoretical lens, young people look first to their trusted peers and

18. See arguments by Mesquida and Weiner (1999 and 2001); den Boer and Hudson (2004); and Kennedy (1993), among others. Meanwhile, Abbink (2005,14) joins dissenters to the biological explanations of violent youth mobilization, blaming instead "the breakdown of a socio-political and moral order in the wider society and the degree of governability of a certain type of state".

19. Staveteig (2005) builds on earlier "generational" work by Easterlin (1968; 1978; 1987) and considers impacts of relative youth cohort size on civil conflict. A more regionally focused resource from Xenos and Kabamalan (2003, 1-26) reviews demographic-polity approaches, with emphasis on youth transitions in an Asian context.

20. Fussell and Greene (2002, 30), for example, argue that large birth cohorts thrive during times of economic expansion, but "in the context of economic stagnation (and a lack of commitment to equity), large youth cohorts may be short-changed with regards to social investments". See Urdal (2004, 2-17) for a similar argument on mixed effects of "youth bulges".

21. See associated discussion and visual representations of "demographic risk" by Cincotta et al. (2003, 49), also synthesized by Mastney (2004, 18-21), with a focus on data from the 1990s.

22. Regarding economic dividends of "youth bulges", see discussion by Jimenez (2006, 40-43) and World Bank (2007). On the potential for demographic threats, see Goldstone (2002 and 2008).

mentors for advice and support, especially during times of crisis and uncertainty. Symbolic and organizational approaches to this rationale emerge in the literature.

Identity network theorists focused on symbolic discourse argue that any movement – violent or non-violent, in support or opposition to the status quo – can attain success only when leadership builds ties to the trust networks of potential recruits and learns to "speak their language", leveraging recruits' common hopes and fears.[23] A group's goals can be melded with meaningful symbols from popular culture, building on key cultural or religious factors, generational tensions, or contentious power dynamics already present in a given community.[24]

An organizational offshoot of the identity networks argument draws on the archetype metaphor of a contagious disease outbreak.[25] According to this rationale, social networks matter because an expanded pool of movement adherents (whether they are militants, gang members, peace-builders, or political activists) increases the relative probability of contact with others, thus enhancing the attractiveness (or at least perceived normalcy) of the movement's ideology and organizational structure.[26]

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23. The salience of local meaning is well articulated by Vendley (2001: 72), who describes the superior mobilizing power of primary languages" vis-à-vis "secular" forms of communication. B. Anderson (1991, 154) argues for the lasting influence of language (and cultural lessons) "encountered at the mother's knee." See M. Hamilton (2006, 73-89) for discussion of "Imagined Communities", a constructionist concept largely disputed by A. Smith (1996; 1998), among others.

24. Gallaher (2003) addresses the complex discursive appropriations and juxtapositions of faith, race, and class in the contemporary American Patriot Movement. Similar cases from Sri Lankan and Nicaraguan contexts will be treated in Chapters 4 and 5.

25. The "contagion" archetype is used by a wide spectrum of system dynamics scholars. It is summarized in Sterman (2000, 300) and will be developed further in Chapters 2 and 3 of this project.

26. According to Abrahms (2008, 101, 96), non-state armed organizations tend to be "social solidarity maximizers", allowing young recruits "to develop strong affective ties with other terrorists."

In sum, the *Groups and Identity* cluster of theories – whether they emphasize a society's demographic profile, its discursive space for identity mobilization, or the contagion dynamics of established social networks– highlight the importance of "belonging" to explain mobilization behavior among youth.[27]

Grievances and (Perceived) Injustice Theory
Cluster: The Impact of Frustrated Expectations

A second cluster of explanations for violent youth mobilization stresses the role of frustrated expectations – *Grievances and (Perceived) Injustice* – as a primary catalyst for civil violence. According to the well-developed body of research on "relative deprivation", social frictions tend to arise when heightened expectations do not result in peoples' enhanced political or economic opportunities.[28] In simpler terms, youth become frustrated when everyday realities do not meet the standards they believe they deserve (whether judged in reference to their own past attainments, to previous generational cohorts, or to other peer or identity groups).[29]

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27. Extensions of this cluster will be treated in subsequent chapters. When trust networks and associated identity norms are effectively appropriated for "coordinated actions" (Putnam 1993: 167), resultant social capital tends to provide a self-reinforcing dynamic. Eclectic economist Hirschman (1984: 93) wrote about the unique multiplying effects of "moral resources", which are expected to increase with usage, unlike traditional instrumental resources.

28. See the flagship piece by Gurr (1970) on the role of failed expectations in mobilization. The J-curve theorized by J. Davies (1962; 1963; 1969) argues that dramatic reversals of fortune increase the likelihood of armed violence.

29. This analytic lens will be discussed further in Chapters 2 and 3. Sources on deprivation comparisons for past attainments include J. Davies (1962; 1963; 1969) and Richardson and Milstead (1986); for generational cohorts, see Easterlin (1968; 1978; 1987) and Staveteig (2005); and for peer and identity groups", see Gurr (2000), Jackson (1972), and Runciman (1966), among others.

The role of shattered expectations is key to nuanced *Grievance* rationales of mobilization.[30] Advocates of this theory cluster argue that committed social actors – whether they are armed militants, peace activists, or even development practitioners – tend to be drawn into "the life" not so much when their expectations are low, but when actors' access to education and knowledge networks catalyzes their political-economic awareness, their discontent of the status quo, or their social grievances. Crucial here is the spark of crisis: an event or series of events that shake up a community and force young people to reassess their social, political, and moral narratives, as well as livelihood strategies.

Roots of these crises may be personal or familial, but, according to many who advocate this theory cluster, what lends social power to *Grievances* is the articulation of diffuse personal tragedies within a larger, more unifying symbolic crisis.[31] Also crucial is fixing blame: "To be a powerful motivational force, grievances need to grow not only from a grave injustice but also have a clear agent… held responsible," according to Brockett (2005, 316), a scholar of Central American armed mobilization.

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30. Writing from a contemporary US anti-terror lens, Atran (2004, 78) argues the importance of relative and not absolute deprivation: "Recruitment for suicide terrorism occur not under conditions of political repression, poverty, and unemployment or illiteracy as such but when converging political, economic, and social trends produce diminishing opportunities relative to expectations, thus generating frustrations that radical organizations can exploit."

31. There can be "scale shift" among contentious movement leaders and influential community brokers, according to Alimi (2009, 219-237); Bob (2005); and McAdam et al. (2001). Regarding the content of a deprivation narrative, development sociologist Long (2001, 18) argues, "Strategies and cultural constructions employed by individuals do not arise out of the blue but are drawn from an available stock of available discourses (verbal and non-verbal) that are to some degree shared with other individuals, contemporaries, and even predecessors."

Employment difficulties are highlighted in this literature as the predominant trigger for social grievances and political mobilization.[32] And youth again find themselves at the center of controversy. According to the estimates by the UN (2003, 55), young people's unemployment rates measure up to three times higher than elder cohorts, and youth now constitute some forty percent of global underemployment.[33]

With expectations rising among global young people due to gains in educational attainment, globalization-induced access to information, and widening discourses celebrating democratic participation and equality, the real-world shortfalls in youth employment, consumption, and political opportunity remain a matter of concern for the *Grievances and (Perceived) Injustice* theory cluster.

Greed and Incentives Theory Cluster: Leveraging
Organizational Carrots and Sticks

The third and final cluster of mobilization explanations highlights the role of *Greed and Incentives* for predicting youth incorporation behavior. Over the last ten years, most *Greed* arguments are juxtaposed against previous *Grievance* rationales, especially in the quantitative civil wars literature.[34] Framed simply, *Greed* advocates claim that opportunity structures and individual incentives are better predictors of youth violence and civil war outbreaks than frustration arguments per se.

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32. Again, see J. Davies (1962; 1963; 1969) and Gurr (1970) for examples of employment deprivation effects, as well as more contemporary analysis offered in a compendium text edited by I. Walker and Smith [eds.] (2002).

33. On a related note, some eighty-five percent of the world's one billion young people reside within the "Global South" (United Nations – UN 2003, 55).

34. See evolving explorations of the "greed" vs. "grievance" debate in P. Collier and Hoeffler (1998; 2000; 2004); P. Collier and Sambanis (2005a; 2005b); Fearon and Laitin (2003); Sislin and Pearson (2001); and Urdal (2006), among others.

Advocates for the *Greed* cluster of mobilization theory parse the economics concept of "expected utility" to highlight war booty as the most common reward sought by potential recruits (Collier et al. 2003; Collier and Sambanis 2005a and 2005b; Davies 2002; Davies and Fofana 2002; and Reno 2002, 322-345). Of course, while youth may covet financial gain, they also may pursue community esteem, sense of belonging, opportunities for skill building, enhanced social capital networks, even survival in the case of coerced or kidnapped "recruits".[35]

Each of these recruitment narratives, while less economistic than most *Greed* explanations in the literature, still fall within the same theory cluster due to a shared emphasis on opportunity structures and individual incentives. And once a recruit is incorporated into a violent organization, new sets of incentives emerge, offering new commitments and social bonds, new promises for advancement and new barriers for exit.[36] And outside pressures play a role as well, whether repression from the state, threats from other groups, or attractive options arising elsewhere. These dynamics may outweigh the perceived benefits of continued membership, especially for the

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35. Interviews with young soldiers across conflict zones found "war has a 'multiplier effect' because it generates many of the other factors in critical and extreme ways" (Brett and Specht 2004, 80). Vinci (2006) offers a realist approach to youth survival techniques, drawing on empirics from Northern Uganda and kidnappings by the Lord's Resistance Army (LRA). Weinstein (2007) has explored the incentive-laden complexity of insurgent group ties with local populations, particularly their potential recruits. For discussion by economists on how cultural identity helps to structure actor incentives, see Akerlof and Kranton (2000; 2005); J. Davis (2007; 2009); and Rao and Walton (2004).

36. Corollary to individual incentive structures to recruit and retain youth militants, much of the "greed" literature shifts analysis up a level, highlighting the opportunity structures that govern the behavior and range of options available for successful militant organizations. On the organizing and administrative logic of insurgencies, see Humphreys and Weinstein (2006; 2008); Gates (2002); Reno (2003); and Tilly (1998; 2002). At a system level, Skocpol (1979) has discussed how breakdowns in elite consensus, financial structures, and general stability create space for revolutionary activity.

recently initiated. According to the *Greed* theory cluster, tracing relevant incentives is the key to understanding violent youth mobilization.

Summarizing the Literature Clusters:
A Need for Synthesis?

In summary, compelling arguments are offered from a range of academic theorists on the origins and organizational dynamics of violent youth mobilization. Even when clustered into three broad orientations – *Groups and Identity, Grievances and (Perceived) Injustice, and Greed and Incentives* – questions remain as to their relative explanatory value for the cases examined here and for broader global context.

1) Regarding *Groups and Identity*, for example, how do particular identity narratives or social networks achieve salience in a particular context and how can empirical patterns be identified and traced systematically? Moreover, how can group-specific impacts be generalized across time and across context?

2) Regarding *Grievances and (Perceived) Injustice*, why do similar types of grievances not always produce similar outcomes? And why do analysts continue to find over-prediction of violence in quantitative correlations of conflict and deprivation (whether they are measuring for relative or for absolute values)?[37]

3) Regarding *Greed and Incentives,* why do youth join armed groups in the absence of observable economic incentives or individual interests? And if *Groups* and *Grievance* factors influence actors' expected utility function, how can revisions to this "rational act" be measured and generalized across time and across context?

These are only a few of the questions addressed in the project model and in subsequent chapters. Each theory cluster offers coherent, if incomplete, arguments

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37. Thompson (1989, 695) discovers "inertia effects" in his data-rich study of Northern Ireland, citing a striking lack of support for common deprivation explanations. See strong critique of "grievance" explanations by P. Collier and Hoeffler (1998; 2000) and the compelling "war economy" perspectives in Berdal and Malone [eds.] (2000).

relevant to the research questions. Based on review of the literature, it is hypothesized that these theories, when they are considered in combination, offer a comprehensive understanding of violent mobilization over time within Sri Lanka and Nicaragua.

CHAPTER 2

OVERVIEW OF METHODOLOGY AND RESEARCH DESIGN

This chapter outlines the project research design, synthesizing the competing

explanations for violent youth mobilization discussed in the previous chapter. It

introduces system dynamics as an integrative methodology for model building and

theory testing.[38] Three causal mechanisms and six proximate factors are hypothesized

to mediate the "attractiveness" of militant mobilization over time. The chapter closes

with a brief discussion of project case selection and its mixed method data sourcing.

An Introduction to System Dynamics Methodology

System dynamics, pioneered in the 1960s and 1970s by Jay Forrester and then

extended by supporting colleagues (including project research advisor Richardson), is

a modeling methodology emphasizing the "feedback" effects in a complex system. It

is employed here as a useful, integrative tool to help trace causal relationships and the

interactive mechanisms of violent mobilization in Sri Lanka and Nicaragua over a

medium to long time horizon.[39] Unlike more mainstream quantitative methodologies,

which examine large-n datasets without much consideration of shifts across time and

local context, a systems approach focuses on the trends developing over time for a

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38. Chapter 3 offers more detail on model building, providing necessary theoretical background on hypothesized causal mechanisms and definition of their interactions. Model testing is undertaken in later chapters, interpreting the value added by the project in light of context-based empirics from Sri Lanka (Chapter 4) and Nicaragua (Chapter 5).

39. Classic systems research by Forrester include *Industrial Dynamics* (1961); *Urban Dynamics* (1969); *World Dynamics* (1971); and *Collected Papers of Jay W. Forrester* (1975), etc.

specific case or a limited series of cases. It fixes less attention on results of particular

linear correlations than on the big picture, that is, how relevant actors and variable

relationships are embedded in a dynamic system.[40] Richardson (2005, 100) highlights

four key principles central to Systems Dynamics practice:

1) "The *structure* of a system, that is, the way its elements are inter-connected in cause-effect relationships, is the key to explaining the system's behavior pattern."

2) *"Feedback loops* – closed chains of cause-effect relationships – are the most important components of a system's structure."

3) "In social systems, *human decisions* play an important role in feedback processes. Decisions are based on goals and information, filtered through perceptions about those aspects of the systems that decision-makers believe to be relevant…" (and)

4) "Feedback processes do not operate instantaneously; the timing of behavior depends on the presence of system elements that create *inertia* or *delays*."[41]

These methodological principles are explained in the remaining sections of

this chapter, then applied and addressed more systematically in Chapters 3, 4, and 5.

The project features an original simulation model (grounded in systems principles)

that structures its theory-based inquiry, frames its case-based empirical research, and

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40. Systems modelers do not ignore the bivariate and multivariate statistical relationships common within the literature. Rather, they consult large-N findings (along with expert interviews, field-based research, extreme condition testing, etc.) to specify the shape of a model's "table function" for nonlinear relationships, that is the range of potential values that may be calculated for a dependent variable based on shifts in the value of the independent variable (Sterman 2000, 552-553). Systems models focus on big picture system feedback effects of a series of interacting bivariate relationships.

41. Richardson (2005, 100) explains common "stocks" or "levels" that accumulate over time: "Typical levels are population, physical infrastructure, inventories and perceptions. Delays in feedback loops caused by stocks are often a source of oscillations or other unstable behavior patterns."

rigorously tests the stated hypotheses.[42] The model is applied to the country cases of

Sri Lanka and Nicaragua, drawing on field interviews and historical reference data

specific to these contexts (as well as analytic insights and supplemental research from

other global sites). It weaves together the three aforementioned theory clusters that

claim to explain violent youth participation: 1) *Groups and Identity*, 2) *Grievances

and (Perceived) Injustice*, and 3) *Greed and Incentives*. The project's emphasis on

synthesis shows the varied reasons why youth have joined and abandoned armed

groups in both countries over the last half century.

<u>The Value of a Systems Approach:</u>
<u>"Seeing" the Elephant</u>

Applying a systems approach to project research questions provides a fuller,

more adequate account than any of the contending theory clusters often considered in

isolation. Therefore, instead of joining with the litany of conflict analysts who argue

for one causal explanation over another, this project takes an integrative approach and

highlights the dynamic interplay of multiple explanatory mechanisms. "Mechanisms"

here refer to the analytic constructs (Weinberg 1993) and coherent "cogs and wheels"

explanations (Elster 1989, 3) that underlie the causal relationships of a given social

phenomenon (in this case violent youth mobilization).[43]

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42. Classic systems works consulted include Forrester (1961; 1969; 1971; 1975); Mass (1975); Meadows et al. (1972; 1992); Meadows et al. (1982); Meadows and Robinson (1985); Richardson (2005); and Sterman (2000). Conflict-related models reviewed and sometimes replicated include Ackam and Asal (2005); E. Anderson (2006; 2007; 2009); Choucri et al. (2007); Kowaleski and Hoover (1995); Richardson and Milstead (1986); Saeed (1994); and Sodini (2007).

43. Hedstrom and Swedberg (1998, 25) discuss a "style of theorizing" based on "middle range puzzles or paradoxes", which require "precise, action-based, abstract, and fine-grained explanations."

As hypothesized in the first chapter, one or two mechanisms of mobilization may take precedence in a particular time or place. Causal weights thus are posited as contingent rather than fixed. They are dependent on a shifting confluence of actor relationships and "tipping points" in the competitive struggle between positive and negative "feedback loops" that resound through the broader system. The meanings for these concepts are spelled out and demonstrated in later sections of this chapter and in Chapter 3, applied to explain the growth or decline in violent mobilization over time.

Regarding the utility of the competing explanations in the literature (and the value of synthesis), figure 2-1 visually represents a key lesson from an ancient Asian fable, chronicling the attempts of six blind men to describe the object that stands before them (Kuo and Kuo 1976; Saxe 1873; etc.).
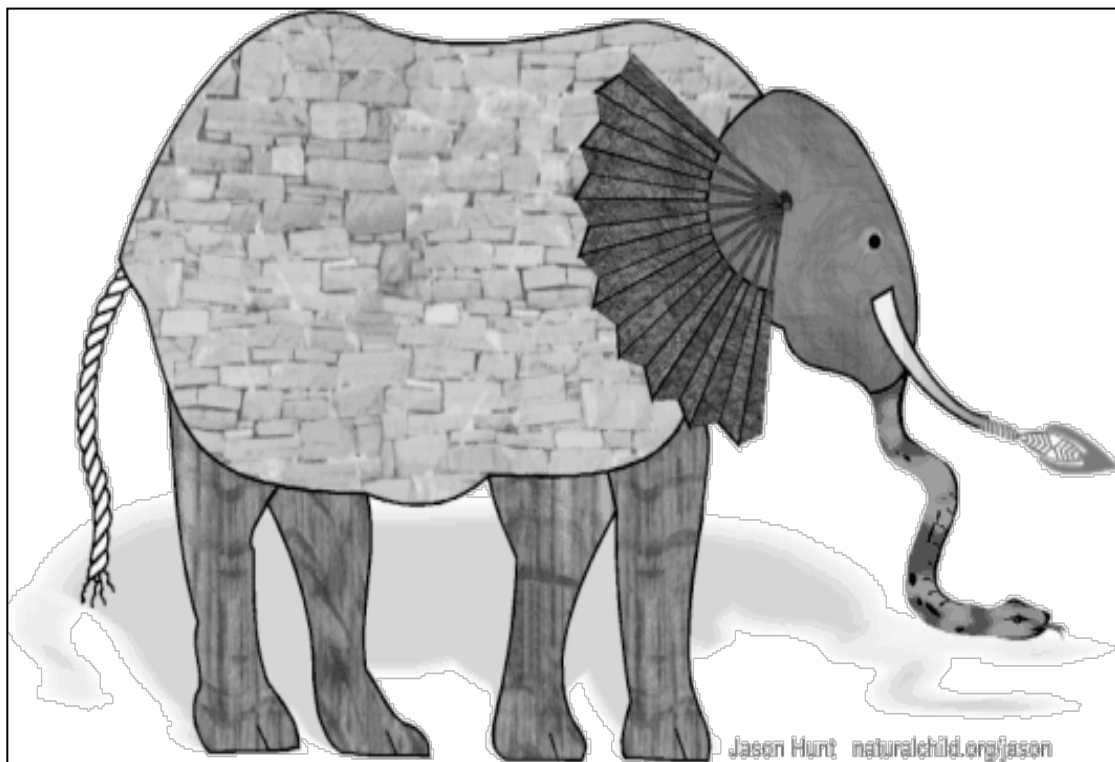
Figure 2-1. The value of model synthesis: The need for "superior stories" to see the elephant

In the fable's scenario, each blind man comments on his particular empirical reality (the "snake" of a trunk, the "spear" of a tusk, the "fan" of an ear, etc.), but as stated in the classic poem of Saxe (Ibid, 77-78; Richardson 2005, 91), "Though each was partly in the right…all were in the wrong!"

In the same way, those analysts who tend to rely on a single mobilization theory, who advocate a singular policy response, or who focus attention on a single linear correlation are likely to see only one part of the "elephant" (see figure 2-1). In doing so, they are likely to miss some of the complex and counterintuitive ways that varied causal mechanisms may interact in a social system over time.[44] By contrast, the systems view of this project broadens the scope of data analyzed and the diversity of perspectives to be explored. It tries to tell a "superior story" (Tilly 2002, xiii) of the youth mobilization dynamics at play in Sri Lanka, Nicaragua, and beyond.[45]

<div align="center">Overview of Project Research Design</div>

While integrative in scope, this project does not make ontological claims of "grand theory" or *natural law*. Instead it offers a systems-informed example of *middle range theory,* following the lead of Merton (1968); Hedstrom and Sweberg (1998); Richardson (2005); and Ziblatt (2006). As such, it seeks to balance its output-oriented priority for theory generalization with a coinciding appreciation for empirical realities, historical contingencies, and contextual nuance in all phases of the research

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44. Hedstrom and Swedberg (1998, 7) call researchers to go beyond "systematic co-variation between variables and events", and emphasize instead "the social 'cogs and wheels'… that have brought the relationship into existence".

45. Parsimony is a high priority for model presentation, for dual purposes of reader clarity and project utility. This does not imply limitations in scope of research or thoroughness of case analysis.

process. Research questions outlined in the previous chapter reflect these nested

priorities, focusing first on context-specific empirical puzzles (addressing cases of Sri

Lanka and Nicaragua) and then a more generalized call for lessons learned about

violent youth mobilization.

The project's hypotheses, which respond directly to the research questions,

are tested in subsequent chapters for explanatory usefulness across diverse political,

demographic, and economic contexts. Model behavior is analyzed within (not across)

each country case over time (Munck 2004). System dynamics offers the project a

disciplined, yet flexible methodological framework to synthesize the aforementioned

theory clusters, operationalizing and testing them as interacting mechanisms within a

broader social system.[46] Model results will provide insight on key system "leverage

points",[47] the potential means of intervention by which savvy political entrepreneurs

and policymakers may capitalize on the enmeshed mechanisms and causal factors of

youth mobilization (its systemic dynamics) to accomplish alternative outcomes.[48]

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46. While far from the norm in the social sciences literature, the need for integrative approaches to mobilization has been raised by Arjonas and Kalyvas (2006); Peterson (2001); Richardson (2005); Staniland (2010; 2012); Weinstein (2007); and Wood (2003), among others. Humphreys and Weinstein (2008, 437) find in West Africa that "different logics of participation may coexist in a single war."

47. Meadows (1999:1) defined "leverage points" as the "places within a complex system (a corporation, an economy, a living body…), where a small shift in one thing can produce big changes in everything". SD theorists maintain that effective interventions must look at the long term and understand how actors and mechanisms fit in a broader system.

48. This "political entrepreneur" concept is not dissimilar to the "norm entrepreneurship" dynamic described by Finnemore and Sikkink (1998) in the social movement literature.

Of course, the project model, like any other theory or conceptual framework, has inherent limits on its description of the empirical world and power of validation.[49] A model by definition offers an incomplete picture of complex realities. Useful here are the words of Sterman (2002, 521), a foremost scholar in the field of system dynamics:

> Because all models are wrong we reject the notion that models can be validated in the dictionary definition sense of 'establishing truthfulness', instead focusing on creating models that are useful, on the process of testing, on the ongoing comparison of the model against all data of all types, and on the continual iteration between experiments with the virtual world of the model and experiments in the real world.

Sterman's model description resonates with the priorities of this project: to respond to the research questions and provide empirically grounded and theory-rich insights useful for policymakers and scholars in Sri Lanka, Nicaragua, and beyond.

Brief Overview of Model Structure

The system dynamics software utilized for model simulations is Vensim PLE (Ventana Systems 2010), and complete variable documentation, replicable case files, and empirical source data is accessible online via a comprehensive data archive (M. Hamilton 2012). Key variable equations also are documented in Appendix B. The systems model is built according to initial data parameters of the two selected country cases (Sri Lanka and Nicaragua) for the year 1960. Populations are disaggregated for the first year based on estimations for the relevant categories of age (0-14, 15-29, 30-

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49. Model, data, and simulation limitations are discussed in the forthcoming chapters, with particular emphasis in Chapter 6. The project's methodology seeks to provide critical engagement and disciplined synthesis of common mobilization theories, carefully examining empirical case relevance. The emphasis is not the pursuit of certainty, so much as practicality and a deeper contextual inquiry.

59, and 60+ years)[50] and for political affiliation (pro-government, unaffiliated, opposition, and militant).[51] Then in subsequent years of the model simulation, numbers are calculated for each "cohort", or demographic peer group (e.g., "militant population 15-29"). The cohort numbers change year-to-year based on two critical inputs: 1) the calculated maturation and mortality rates for a given age category, and 2) calculated flow rates between political affiliation cohorts.

In the model, between-cohort flows are regulated by the relative likelihood of mobility across political categories, essentially the "attractiveness" of a given young person joining one group over another. This mobility likelihood is functionally the "attractiveness" of mobilization. For newcomers to system dynamics methodology, flow dynamics (shown selectively in figure 2-2) are analogous to filling a bathtub with water: population levels fill (and drain) yearly according to changes in the "faucet" rates of maturation, mortality, and the "attractiveness" for mobilization (Sterman 2000, 194).

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50. Incorporating chronological age categories into the model is not without its disadvantages. Durham (2000); Shepler (2005b); and Sommers (2007) warn that quantitative definitions undermine contextual richness and ignore the politically constructed nature of social categorizations like "youth". Still, age specifications offer the practical advantage of being able to trace broad demographic shifts over time. Moreover, due to the dynamism of a systems model, age consideration does not eliminate the ability to address contextual and constitutive identity factors. Even for initial values, "youth" cohorts for Sri Lanka and Nicaragua are expanded to include ages 15 to 29 rather than more restrictive United Nations' age category (14-25). This decision to target a wider time span is based on superior quantitative data availability as well as interview-based qualitative findings in both country contexts. Actors consistently argued for an extended definition of youth-hood based on a variety of reasons.

51. Estimating political affiliation, especially in historical perspective, is a difficult and almost inherently inexact task. Still, by analyzing diverse data sources relevant to the country cases, empirical "order of magnitude" can be estimated and shifts traced over time. An online archive (in M. Hamilton 2012) documents model parameters, including separate structures for key ethnic groups in Sri Lanka.
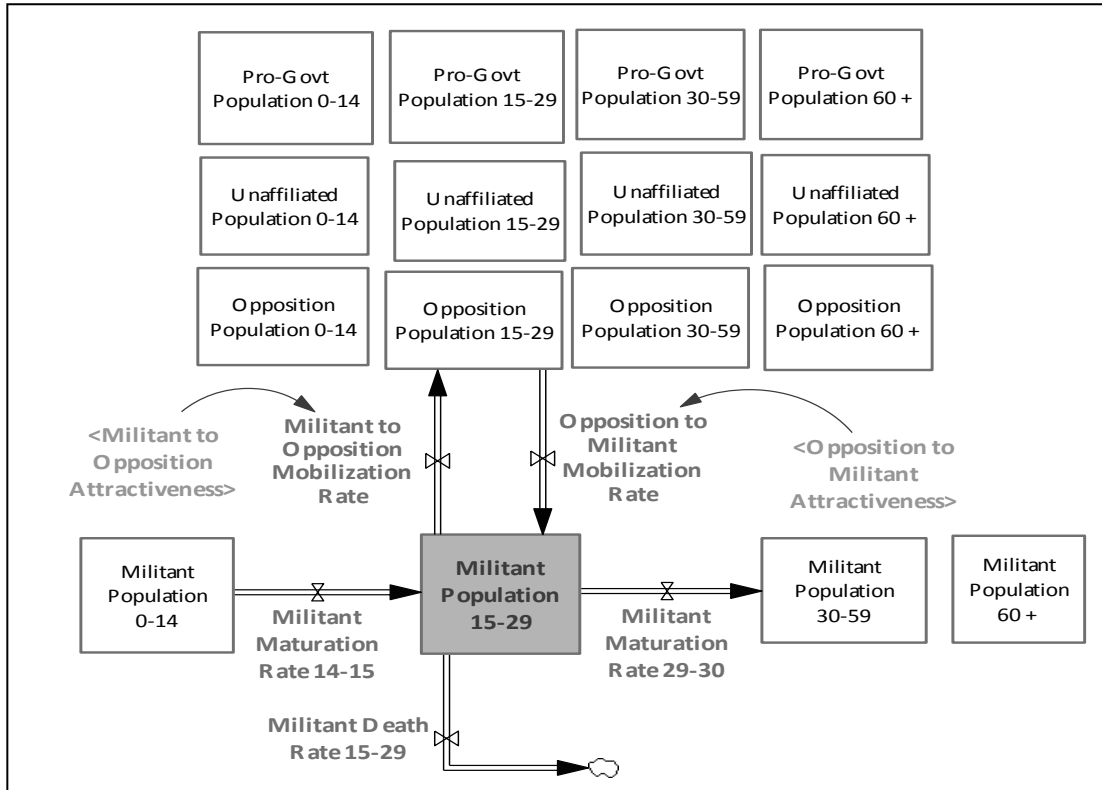
Figure 2-2. "Bathtub dynamics" of population flows in the project model.

Addressing "Attractiveness" of Militant Mobilization
Through Simple Causal Loop Diagrams

The concept of "attractiveness" is adapted from the innovative modeling by

Forrester (1969) of the urban dynamics of labor, industry, and housing in decaying

US cities. The revised frame utilized in this project addresses at a cohort-aggregate

level[52] the circumstances in which joining with a militant group (or alternately with a

pro-government coalition) becomes a more or less "attractive" option over time.[53]

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52. Attempts to link systems dynamics with agent-based modeling (ABM) offer promise for discrete event analysis and enhanced disaggregation (Duggan 2007); however, in attempts to blend the system- and individual-focused approaches, the nuance of feedback effects and of model complexity, which are crucial to this project, often tend to be sacrificed. See further discussion in Chapter 6.

53. Using a "multiplier" to effect changes on "normal" rates was popularized in system dynamics by Forrester (1969).

"Attractiveness", or the relative likelihood of an actor choosing to join a given group, is a crucial contributor to the three hypotheses introduced within the previous chapter. The first hypothesis highlights the potential value-added by applying an interactive systems approach to the project research questions, converting competing theory clusters into complementary causal mechanisms.[54] The second hypothesis posits the potential for shifts in the relative explanatory power of any one mechanism (based on year-to-year changes in values of "attractiveness").[55] The third hypothesis, based on the previous two propositions, raises a danger warning for those scholars or policymakers who advocate isolated approaches to curb violent mobilization, due to the common failure to recognize system feedback effects over time.

In the project's systems-based model, there are three causal mechanisms that operate in conjunction to mediate the relative "attractiveness" of youth mobilization year to year. These "cogs and wheels" mechanisms (shown in figure 2-3) draw from the competing theory clusters discussed in the introductory chapter: 1) *Groups and Identity*, 2) *Grievances and (Perceived) Injustices*, and 3) *Greed and Incentives*.

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54. The analytic construct "attractiveness of militant mobilization" is a core model variable.

55. In the model, six causal factors operate according to the three primary mechanisms. The six factors are framed as "multipliers" on normalized rates of "attractiveness", with their relative weights determined by yearly system feedback effects.
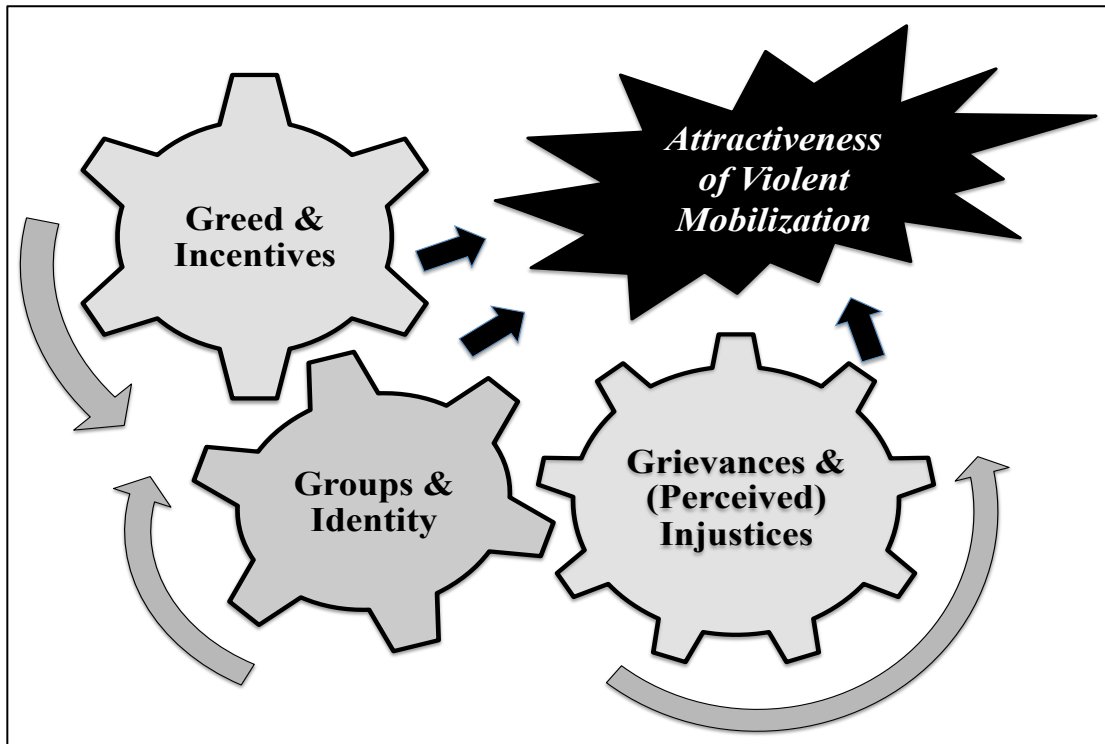
Figure 2-3. Mechanisms of violent mobilization: The explanatory "cogs and wheels".

The theory-laden mechanisms shown in Figure 2-3 are now engaged through the presentation of a few simple "causal loop diagrams". Causal loops are concept-mapping tools central to system dynamics practice: they visually tell a model's story and allow readers or replicators to review the applied mental map of the modeler. The cyclical figures are conceptual building blocks for constructing (and understanding) any systems model. They can be presented with widely varying levels of detail and contextual nuance. The loop diagrams presented here are simplified for clarity and are intended as a methodological primer for readers unfamiliar with the system dynamics method. They are supplemented with far greater development and documentation in Chapter 3 and the case-based testing of subsequent chapters. Conceptual variables in the loops have been formulated based on exhaustive multidisciplinary research, and

their theory-based rationales and documentation of model source data is available for experienced systems modelers, econometricians, etc. in Chapter 3 (especially in the footnotes) and via the online data archive website for the project (M. Hamilton 2012).

Figure 2-4 offers the first example of a simplified causal loop diagram, which operates according to a *Groups and Identity* rationale. Arrows drawn between loop variables identify hypothesized causal linkages and accompanying symbols show the expected nature of the relationship between each independent and dependent variable.
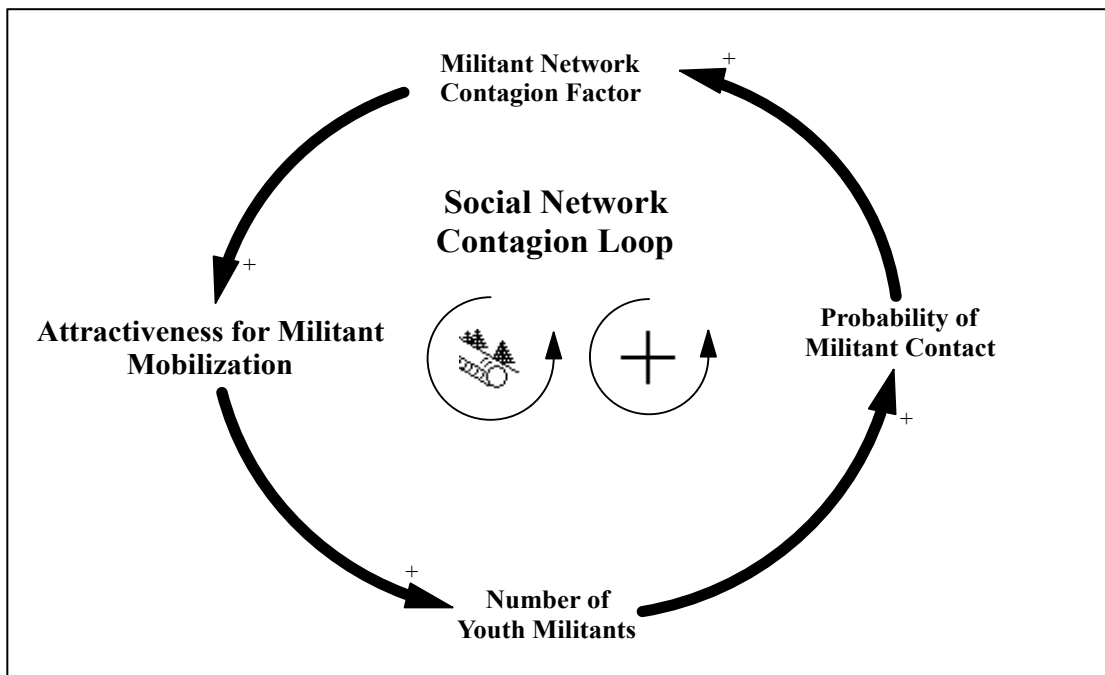
Figure 2-4. Groups and identity causal loops: Network contagion effects.

In figure 2-4, every arrow is accompanied by a "+" symbol. Positive symbols signify a *reinforcing* relationship between linked variables, whether associated numerical values are increasing or decreasing. For example, if values were to grow for "Attractiveness for Militant Mobilization", so too should the "Number of Youth Militants". If attractiveness decreases, so should the associated militant numbers.

Also in figure 2-4, the feedback loop is accompanied by a "+" symbol and an avalanche graphic at its center. This communicates that overall trends of the "Social Network Contagion Loop" act to reinforce militant attractiveness, whether for growth or for decay. Tracing through the loop, any enhancement in militant attractiveness is expected to heighten the overall militant numbers, which spurs militants' contact with other population sectors. This should build network influence and thus contribute to iterative growth in militant attractiveness. The loop's explanatory logic is analogous to contagious disease outbreak or a successful "word of mouth" marketing campaign: a growing contagious pool offers potential to increase the contagious population's contact with previously unaffected actors, thus enhancing infection rates and kicking off an iterative cycle of further contagion, at least in absence of balancing measures.

The same logic (and opposite results) applies to a scenario that initiates with falling "Attractiveness for Militant Mobilization". The expectation now would be a decay-oriented avalanche cycle year to year. Diminishing militant numbers minimize members' contact with other sectors, undermining contagion effects among relevant social networks. Lack of familiarity and faltering identity linkages then decrease the attractiveness for new actors joining the group, with corresponding shrinking effects for the subsequent "Number of Youth Militants".

Without other *balancing* mechanisms, a *reinforcing* loop like "Social Network Contagion" pushes a social system toward unabated growth or unabated decay. Of course, in empirical reality (and this model), there are balancing factors that emerge elsewhere in the system to counteract avalanche behavior over the long run.[56]

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56. "Balancing" feedback dynamics are discussed for Figures 2-5 and 2-6 and in Chapter 3.

Figure 2-5 portrays a slightly more complex causal loop diagram, this time operating in accordance with the *Grievances and (Perceived) Injustice* explanatory rationale. Beginning with the outer-most loop (which is comprised of solid arrows and labeled "Government Illegitimacy Loop: Repression Effects"), growing militant attractiveness again is expected to escalate armed participation.
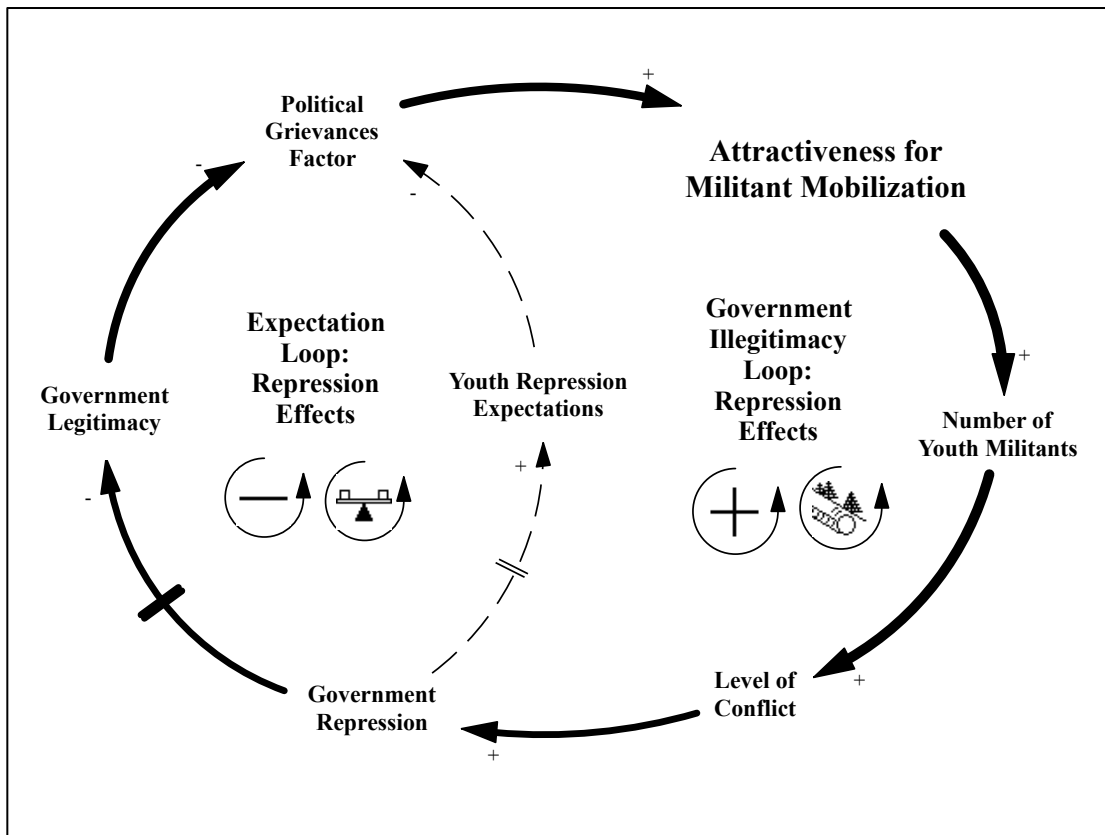
Figure 2-5. Grievances and (perceived) injustice causal loops: Government repression effects.

According to the loop hypothesis for figure 2-5, an enhanced "Number of Youth Militants" will augment "Level of Conflict", triggering increased "Government Repression". Over time, such repression will undermine "Government Legitimacy".

Diminishing legitimacy then increases the extent of "Political Grievances", restarting an exponential growth cycle by increasing "Attractiveness for Militant Mobilization".

Balancing this growth cycle is the innermost loop of the diagram (comprised of dashed lines and labeled "Expectation Loop: Repression Effects"). It is represented by a "- " symbol and the image of a scale/ balance, inserted in place of an avalanche graphic. This secondary causal loop ensures that effects of increasing "Government Repression" are not exclusive to the aforementioned dependent variable "Government Legitimacy". Rather, the inner loop of figure 2-5 highlights a corresponding increase in "Youth Repression Expectations". Expectations are expected to diminish the shock value of "Government Repression" and thus mediate or balance the relative effects on "Political Grievances" year to year (at least until repression ratchets up to reach crisis proportions and outstrips the tolerated expectations of youth).

Figure 2-6 (on the next page) is a significant revision to the previous causal loop diagram. The "Government Fear Loop", which is comprised of dashed arrows, is connected to the recently discussed "Government Illegitimacy Loop".[57] The "Fear" dynamic is driven by adverse political incentives, operating according to the *Greed and Incentives* mechanism. Tracing from the "Attractiveness" variable, it begins with the same logic as the "Illegitimacy" loop: as relative attractiveness increases, militant numbers are expected to coincide, exacerbating conflict and spurring state repression. At "Government Repression", the two loops' causal rationales diverge significantly.

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57. For visual simplicity, the "Expectation Loop" of figure 2-5 is eliminated in this diagram.
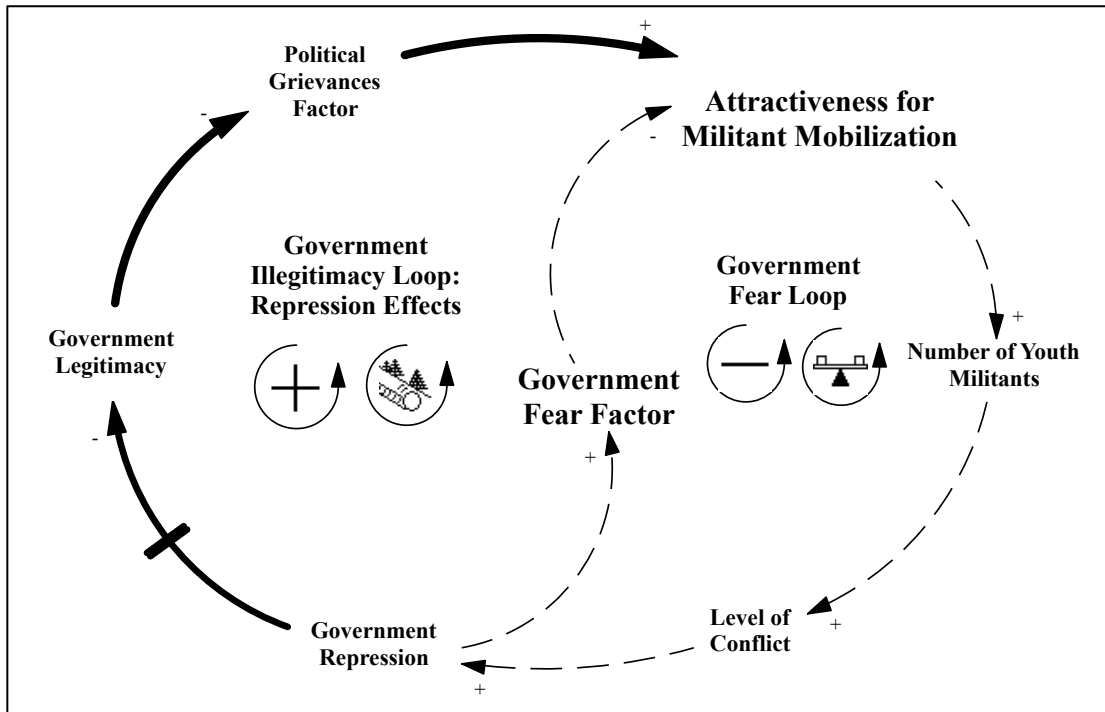
Figure 2-6. Greed and (dis-) incentives causal loops: Government fear effect.

In figure 2-6, the "-" symbol alongside the arrow connecting "Government Fear Factor" to "Attractiveness for Militant Mobilization" signifies a *balancing* relationship. When state fear is on the rise (catalyzed by increases in "Government Repression"), militant attractiveness is expected to wane. However, when repression and fear subside, militant attractiveness is expected to increase.

The "Government Fear Loop" in figure 2-6 (like the "Expectations Loop" in figure 2-5) contributes a *balancing* effect to the system, signified in the diagram by use of "-", dashed arrows, and the symbol of a scale/ balance. Whereas "Government Illegitimacy Loop" seeks to drive the overall social system to exponential growth, the "Government Fear Loop" (and hidden "Expectations Loop") counteracts the tendency and pulls the system back toward equilibrium.

In combination, these loops compete for dominance over the "Attractiveness for Militant Mobilization" from year to year. Outcomes of this competition can be graphed for a specified time horizon, tracing quantitative patterns in the yearly values for targeted variables. The concept of a "tipping point", popularized by Gladwell (2000), refers to a shift in loop dominance that influences the entire system. Over time, changes can be expected in observed empirical patterns, whether the new "winner" is a positive loop (self-reinforcing like an avalanche) or a negative loop (balancing like a scale, always in search of equilibrium).

Another point deserves mention here. The slash on the arrow that connects "Government Repression" to "Government Legitimacy" symbolizes a time delay. In systems parlance, a "delay" means that the indicated causal effects on the dependent variable are not immediate. It takes some time for state repression to catalyze social discontent and build polarization; however, eventually a reckoning can be expected. Whereas "Government Repression" contributes in the short run to keeping militant attractiveness in check ("Government Fear Loop"), over time its behavior feeds the stock, or metaphorical bathtub, of collective grievances ("Illegitimacy Loop").

<div align="center">Summary Discussion of Causal Loop Diagrams</div>

These interactive causal loop diagrams (shown in figures 2-4, 2-5, and 2-6) preview incorporation of competing mobilization rationales within a comprehensive explanatory model. For its elegance and model utility, the "attractiveness" concept of Forrester (1969) has been adapted to frame and explain the hypothesized interactive effects of the three theory-cluster based mechanisms on violent youth mobilization.

Figure 2-7 now diagrams a top-level orientation of the three theory-driven mechanisms and six causal factors core to understanding and testing the model. The project identifies six causal factors that directly influence the year-to-year values for "Attractiveness of Militant Mobilization", acting in conjunction as "multipliers" on a normalized initial rate (Forrester 1969). Variable justifications follow in Chapter 3.
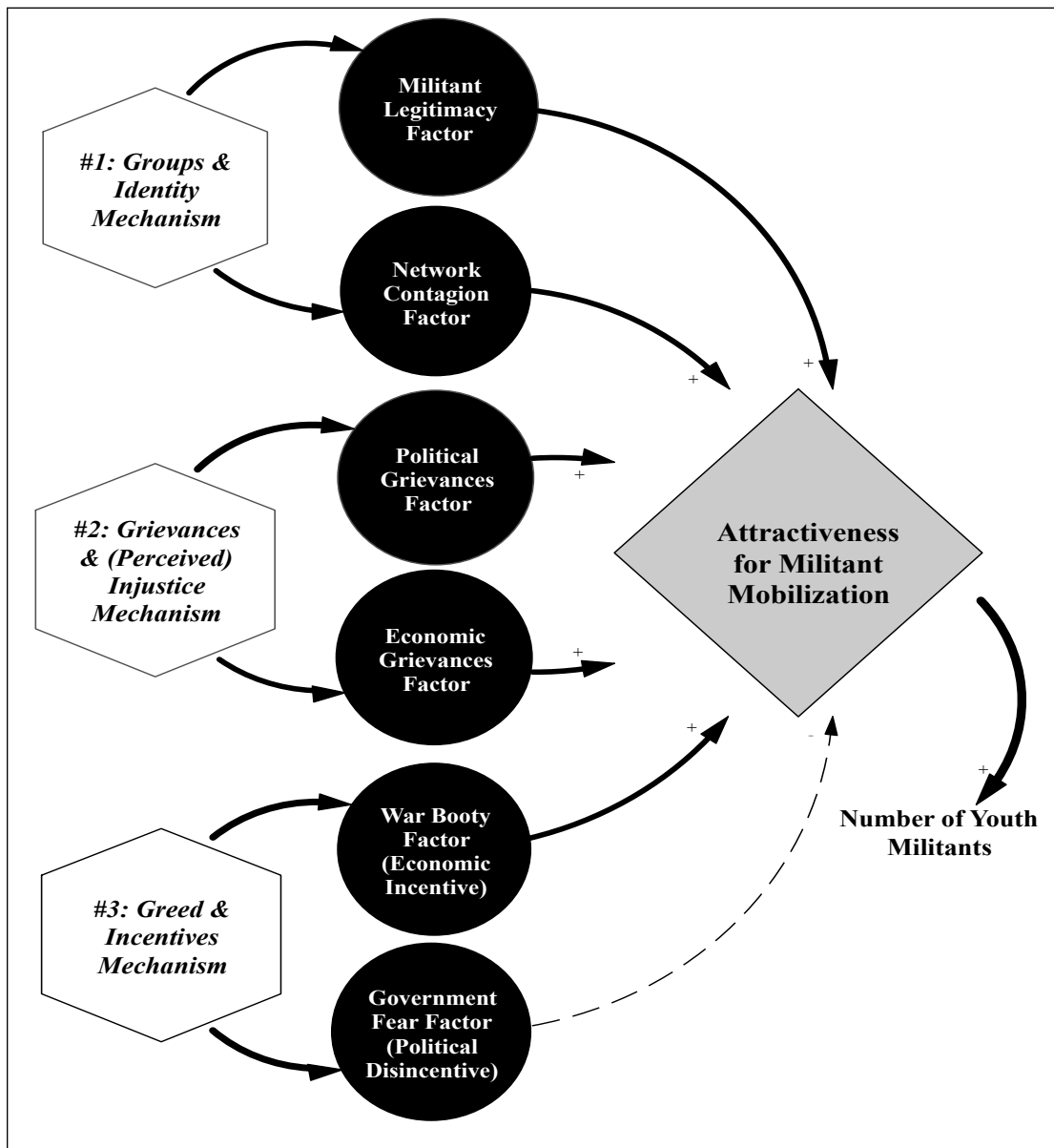
Figure 2-7. Three mechanisms and six causal factors that influence "militant attractiveness".

Identified causal factors hypothesized to influence "Attractiveness" include the aforementioned "Network Contagion" (Figure 2-4), "Political Grievances" (Figure 2-5) and "Government Fear" (Figure 2-6), along with these additional factors:

1) "Militant Legitimacy Factor", drawing on a *Groups and Identity* rationale, addresses the effectiveness of militant group messaging to targeted sector audiences, and in particular the perceptions of group strategy and capacity relative to the government and other key actors.

2) "Economic Grievances Factor", operating according to a *Grievances and (Perceived) Injustice* rationale, considers crucial gaps between the present realities of youth opportunity and the loftier state of their expectations, which are influenced by their past experiences and comparisons to peers.

3) "War Booty Factor", following a *Greed and Incentives* rationale, highlights the rewards a militant group is able to offer to its prospective youth participants, to be measured relative to their other available options.

In sum, a total of six causal factors are identified as intervening multipliers on the "Attractiveness of Militant Mobilization", allocating two apiece per theory cluster mechanism (as per figure 2-7). In the model, *Groups and Identity* directly influence militant attractiveness via the "Network Contagion Factor" and "Militant Legitimacy Factor". *Grievances and (Perceived) Injustice* exerts direct influence through the "Political Grievances Factor" and "Economic Grievances Factor". Finally, *Greed and Incentives* relies on the "State Fear Factor" and "War Booty Factor" to influence attractiveness. Detailed causal narratives for all of these factors (including relevant variables and hypothesized interactive effects) are addressed in Chapter 3 and fully documented and accessible in the project's online data archive (M. Hamilton 2012).

Data Collection and Case Selection

Regarding project case analysis, empirical and theoretical insights have been integrated from diverse quantitative and qualitative sources to provide a broad and multidisciplinary base for testing model validity and utility.[58] For example, large-n quantitative sources serve as key inputs for defining the model's causal relationships. Longitudinal data sets (consolidated and considered in combination) have helped to determine many of the initial data parameters and exogenous variable effects on the social system. Qualitative strategies employed, including snowballing interviews, a participative graphing exercise (Appendix A), contextual historical interpretation, and comparative analysis of other cases, all have contributed to identifying the causal relationships of the model and iteratively testing its fit for given case contexts.[59]

The decision to examine Sri Lanka and Nicaragua as primary country cases for this project can be attributed to two major factors, both of them appropriate within a system dynamics modeling framework:

1) *Relevance to the research question:* Both cases offer multiple examples of violent youth mobilization in recent history, including significant within-case diversity in the rationales commonly utilized to explain rebellions.

2) *Depth of contextual understanding:* Experiential knowledge of cultural and political context is an advantage for both country cases, including travel to the major conflict regions, perusal of local libraries and national archives, wide-ranging interviews in the field, and establishment of diverse networks spanning political, professional, and age divides. In researching a systems model, intimate knowledge of the context is a crucial value-added.

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58. Documentation of mixed method data sourcing for the model is addressed in Chapter 3, detailed in M. Hamilton (2012), and addressed in Chapters 4 and 5 via case-based testing of the model.

59. Regarding the validity of snowball sampling interviews to determine expert informants, to access difficult-to-reach populations, or to conduct research in trust-sensitive contexts (particularly in conflict and post-conflict zones), see associated discussion by Cammet (2007), Heckathorn (1997), Kevlihan (2009), and Patton (1990), among others.

In Sri Lanka, a field research fellowship allowed travel to the island during the Norwegian-brokered peace process from 2002-2006. Significant research time was spent inside and outside the capital, including extended field visits to the conflict-plagued North, East, and South. Opportunities arose to consult with business leaders, academics, politicians, religious leaders, and non-profit workers as well as students, teachers, tea pluckers, and fishermen. Sympathizers and active participants of the JVP, LTTE, and Sri Lankan Army provided unique narratives in a series of semi-structured interviews and focus groups. Relationships were built with informants in a variety of locales, ranging from university quads to people's homes, from remote teahouses to exclusive Colombo sports clubs. In addition to field research, which was more difficult in subsequent years due to reignited violence, country case knowledge was supported by final stages of research, publication, and marketing of a seminal tome on Sri Lanka's "development-deadly-conflict system" (Richardson 2005, 91-121), which serves as point of departure for this project.

In Nicaragua, project research built upon a multiyear foundation of previous work experience in the region, a strong network of research informants, and Spanish language fluency. Dozens of field interviews inside and outside the capital city were supplemented by an innovative participative graphing exercise (see Appendix A), which included input from diverse national stakeholders. Informants included former leaders from both *Sandinista* and *Contra* armed movements, well-known critics from the mainstream media, and representatives from the Secretariat of Youth and Ministry of Education. Also interviewed were a host of NGO leaders, youth organizers, university students and professors, a leading writer on Nicaraguan gangs and youth

violence, religious leaders (both revolutionary and conservative), and a broad societal

cross-section of taxi drivers, entrepreneurs, housemaids, farmers, gender activists and

immigrant rights workers.[60] The sampling criteria for project interviewees considered

their potential depth of analysis (targeting knowledgeable and high impact actors via

snowball sampling), breadth of perspective (targeting alternative perspectives and

addressing marginalized sectors), and researcher access (balancing depth and breadth

priorities in limited field research time, drawing on extensive literature review, case-

based context analysis, and existing relationships throughout the country and region).

Additional research initiatives in Nicaragua included archival data analysis at the

National Archive and workshop participation alongside diverse actors, ranging from

at-risk, gang-affiliated youth to high-ranking security sector personnel from military

and police sectors.[61]

Summary of Project Research Design

This chapter has previewed the methodological framework of the project,

highlighting complementary roles for systems modeling and empirical case analysis

in addressing the stated research questions. It introduced the concept of mobilization

"attractiveness" and identified, in brief, the three interactive mechanisms and six

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60. Interviews comprised former *Sandinista* militants, ex-soldiers, *Contra* resistance fighters, and even gang members.

61. The National Archive, now located in the former national palace, provided access to rare documents on pre-revolutionary National Guard and the student resistance movements from the late 1950s. Experiential invitations included engagements with at-risk youth in workshops at Managua's Center for the Prevention of Violence (CEPREV), among other gang-relevant contexts. In addition, work responsibilities with the Latin American Studies Program (LASP) based in San José, Costa Rica and the Inter-American Defense College (IADC) based in Washington DC opened unique opportunities to interview and learn from high-level actors in governance and defense sectors.

causal factors hypothesized to effect "attractiveness" rates for recruiting or retaining armed youth activists over time in a given context.

Shifting from abstract theory clusters to more coherent and operational causal mechanisms requires a research-intensive, creative, and iterative process. Figure 2-8 provides a visual representation of the project research cycle.
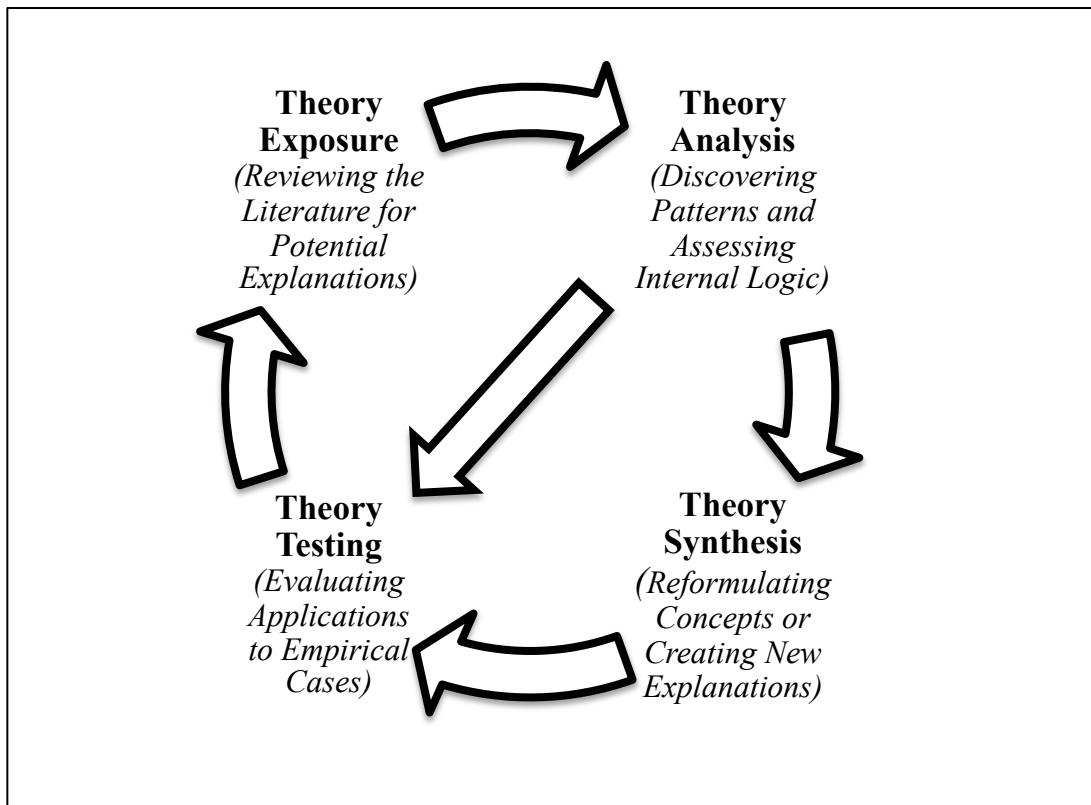
Figure 2-8. Research cycle for theory building and testing.

"Theory Exposure", as shown in figure 2-8, requires sifting through diverse bodies of knowledge to seek out suitable causal explanations for given empirical phenomena. *In this project, targeted phenomena are the patterns of violent youth mobilization observed in Sri Lanka and Nicaragua over an extended time horizon.* "Theory Analysis" goes a bit deeper, identifying relevant patterns within the state of

knowledge, then assessing internal logic and empirical fit for causal explanations. *In this project, focus is on the three explanatory theory clusters identified in Chapter 1.* "Theory Synthesis" introduces a breath of creativity to the research process, whether interpreting empirical phenomena directly (creating new theory) or reformulating, refining, and integrating concepts from the current body of knowledge. *This project employs both strategies in combination, crafting new ideas into the model structure and integrating and adapting relevant elements from aforementioned theory clusters.* Finally, "Theory Testing" evaluates the empirical fit of a given theory through direct observations or comparative simulations. This research step is nearly universal in the latter stages of social scientific inquiry; however, in system dynamic modeling, it can be employed in all phases of the project. Preliminary assessments of empirical and simulated observations add value and can inform problem definition, initial theory development, and ongoing model adjustment. *In this project, testing of case empirics has been prioritized from the outset, motivating initial framing of research questions and early assessments of existing theories' relevance and fit. From there, ongoing review of the empirical record (considered from diverse sources and perspectives) has helped in configuring the systems model, honing its subsequent adjustments, and testing its validity and added value in context of the country cases.*

The iterative nature of the research cycle shown in figure 2-8, applied within a systems framework, allows informed (and disciplined) adjustments to model structure in every phase of project development. Subjecting the model configuration to ongoing feedback and "Theory Testing" deepens understanding of causal dynamics all along the process and provides greater nuance in its theoretical and contextual conclusions.

In this project, causal loop descriptions for the hypothesized mechanisms of violent youth mobilization – *Groups and Identity*, *Grievances and (Perceived) Injustice*, and *Greed and Incentives* – reflect multiple iterations of the research cycle. Throughout, relevant theories and model structure have been honed based on feedback from both empirical and simulated observations.

Chapter 3 moves beyond methodological overview and delves more deeply into causal loops, interactive effects and specific variable relationships hypothesized to influence the mechanisms of mobilization. It discusses relevant data sources and reference empirics crucial to the model's structure and case parameters.[62]   Chapters 4 and 5 then test the model-simulated results against the empirical case record for Sri Lanka and Nicaragua. They draw out emergent patterns in youth mobilization and harness case insights to inform project conclusions in Chapter 6, which articulates model leverage points, limitations of the current research, and potential extensions.

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62. Complete model documentation is available in the project's online data archive, and key variable equations are discussed in depth in Appendix B.

CHAPTER 3

"UNDER THE HOOD" OF A SYSTEMS MODEL: INTERACTIVE

MECHANISMS OF VIOLENT YOUTH MOBILIZATION

This chapter moves from general to specific, from the broad overview of the

preceding chapters to a more "cogs and wheels" (Elster 1989, 3) explanation of why,

how, and, under what circumstances, young people are likely to join with a non-state

armed group. It operationalizes the systems methodology introduced in Chapter 2 and

offers a more substantive and detailed view of the conceptual model.

Attention is focused on the three model mechanisms and six causal factors

hypothesized to influence the "attractiveness" of violent mobilization for the studied

cases. Causal loop diagrams, introduced in simple form in the preceding chapter,

provide a structure to examine the dynamic interplay among the *Groups and Identity*,

Grievances and (Perceived) Injustice, and *Greed and Incentives* mechanisms. Loop

descriptions treat the causal mechanisms, explaining key variable relationships, data

sources, and overall system effects. Each mechanism is treated loop by loop and then

eventually connected to provide a comprehensive framing of the overall model.[63]

Describing the Groups and Identity Mechanism

The first causal mechanism analyzed here interrogates and adapts the *Groups*

and Identity theory cluster introduced in Chapter 1. To review, this cluster explains

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63. Subsequent chapters test model results against case empirics of Sri Lanka (Chapter 4) and
Nicaragua (Chapter 5), followed by discussion of limitations, extensions, and applications (Chapter 6).

armed youth mobilization as a function of the social network dynamics, biological

tendencies, and cultural-political identities characterizing the actors of a given

community. The mechanism is dominated by the sense of "group belonging" shared

by diverse proponents, whether organizational, biological, or cultural in orientation.[64]

Loop #1: Social Network Contagion

The causal loop diagram in figure 3-1 draws a narrative picture of "Social

Network Contagion": sustained growth in the number of a movement's adherents

increases their influence in target communities, thus enhancing attractiveness (or at

least perceived normalcy) of the movement's ideology and organizational structure.
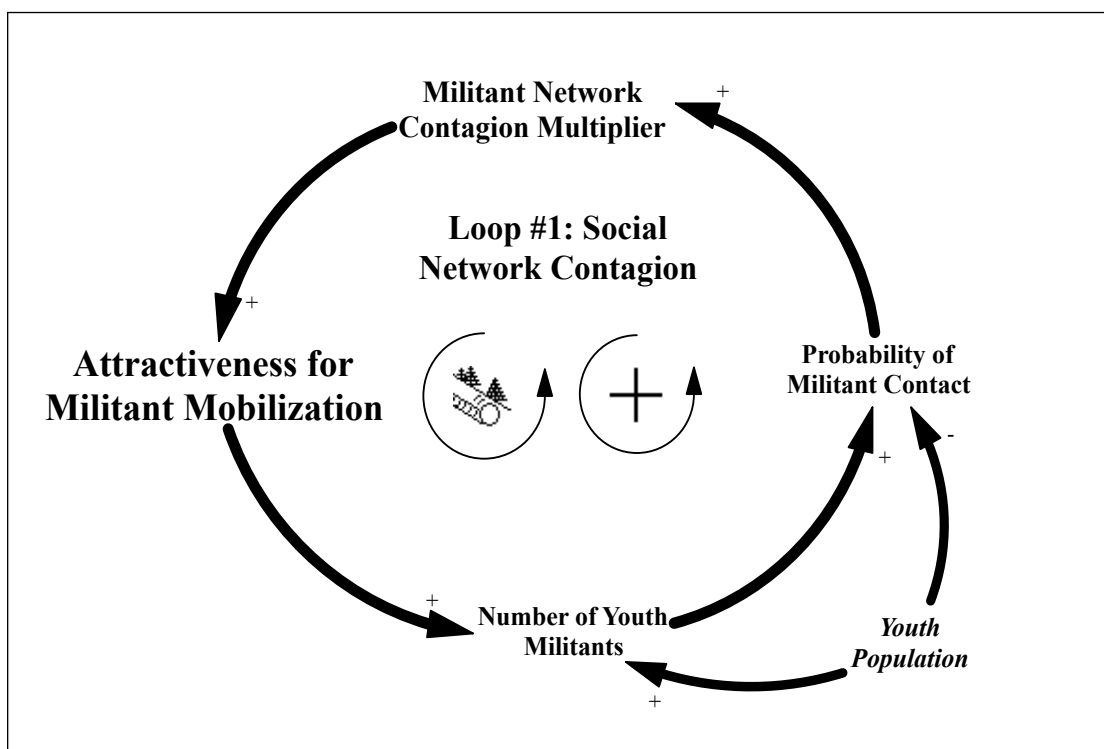
Figure 3-1: Groups and identity causal loop #1: "Social network contagion".

64. For full documentation of model equations, variable relationships, data sources, and structure diagrams, see online data archive (M. Hamilton 2012). For key variables, see Appendix B.

The causal loop in figure 3-1 acts as a *reinforcing*, avalanche-like contributor to militant "Attractiveness", triggering long run patterns either of growth or of decay. The *positive* or *reinforcing* linkage proposed between the "Attractiveness for Militant Mobilization" and "Number of Youth Militants" is influenced by "Youth Population" dynamics, including demographic characteristics of birth, death, and aging for a given community.[65] Even more salient to project research questions are flow rates simulated between political cohorts, modeled according to the "bathtub dynamics" visualized in Chapter 2 (shown in figure 2-2).[66] "Faucet" rates for inter-cohort flows are regulated by the indexed "Attractiveness" of mobility across competing political affiliations.

As discussed in Chapter 2, "Attractiveness" refers to the statistical propensity for young people to settle in as *Unaffiliated*, to join unarmed *Opposition* groups, or to mobilize with an armed *Militant* movement. Growing the "Attractiveness for Militant Mobilization" increases the relative rate of incorporation to an armed group by youth currently subscribed to the *Opposition*.[67] The "Number of Youth Militants" refers not only to those serving on the front lines of violent rebellion, but also those who fulfill necessary support roles and administrative functions in an armed group. In the model,

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65. In the causal loop diagrams, italicized lettering delineates the variables for which model behavior is not simulated but input exogenously as historical reference data, usually to test overall model validity. Relevant data sources for reference variables are described in this chapter and follow-up empirical chapters. Yearly data for "Youth Population" is adapted from the UN (2007), among other case sources, which are described in more detail in a subsequent footnote for figure 3-2.

66. The bathtub metaphor conceptualizing "stocks" (level) as reservoirs and "flows" (rates or derivatives) as faucets is common in system dynamics (Forrester 1961; Sterman 2000), but also applies to the field of economics. The concept of "capital" stock emerged from Fisher (1896), and "confusing stocks with flows" is a key critique of the "quantity theory of money" (Kalecki 1971; Robinson 1982).

67. The variable "Attractiveness for Militant Mobilization" is directly influenced by a series of six causal multipliers (shown in figure 2-7) described in the subsequent paragraphs of this chapter. See Appendix B for a more comprehensive description of key variables related to "Attractiveness".

the variable is calculated by multiplying the cohort-disaggregated "Youth Population"

by inflow and outflow rates between *Opposition* and *Militant* cohorts.[68] The flows

between political cohorts are regulated yearly by shifting "Attractiveness" values.

Regarding the next causal relationship shown in figure 3-1, the *reinforcing*

link that connects "Number of Youth Militants" and "Probability of Militant Contact"

is determined in the model by calculating the population ratios for politically similar,

or "nearby" cohorts. In model application, *Militant* youth are deemed far less likely to

interact with politically dissimilar *Pro-Government* youth than with the "nearby"

Opposition youth. Therefore, only youth sectors that are one affiliation removed are

calculated into cohort ratio comparisons. Model assumptions are based in empirical

research on the oft-segregated nature of identity networks and political affiliations.[69]

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68. In the absence of one comprehensive data source to tabulate "Number of Youth Militants" for the country cases, model reference data have been consolidated from an array of sources, with careful attention to data reliability, diversity of perspectives, consistency of definitions, and related factors. Model and reference documentation is available in an online project data archive (M. Hamilton 2012). According to model specification, "Militants" here include not only those serving on the front lines of violent rebellion, but those who fulfill necessary support roles and administrative functions in an armed group. Data sources for the Sri Lankan case include, for Sinhalese JVP militancy, estimates by Blood (1988); Gunaratna (2001); International Institute for Strategic Studies - IISS (1970-2010); JVP Sri Lanka (2010); R. Levy (1988); McGowan (1992); and Obeyesekere (1974), etc., supplemented by wide ranging interviews in Colombo, Kandy, Hambentota, Matara, and Washington DC. Reference data for Tamil/ LTTE militants considers estimates from Bandarage (2009); Gunaratna (1998; 1999); C.A. Gunawardena (2005); Hariharan (2006); Hopgood (2005); IISS (1970-2010); McGowan (1992); Pape (2005); Ramasubramanian (2004, 8); Roberts (2007, 16); the South Asia Terrorism Portal (2010); and Swamy (1994; 2004), along with interviews with militant supporters and detractors in Colombo, Jaffna, Akkaraipattu, and Washington DC. Regarding reference data for the Nicaraguan case, sources on *Sandinista* growth include Booth (1991); Butler et al. (2005); the International Court of Justice (1999); Ortega (1978); Tarttar (1993); Tijerino (1978); T. Walker (2000); Wright (1991), and Zimmerman (2000), etc. For *Contra* mobilization, sources include Booth (1991); T. Brown (2001); Horton (1998); IISS (1970-2010); Tarttar (1993); and Wright (1991). On *pandillas*, sources include Estrada (2008); Kinnear (2009); Rodgers (2005; 2006; 2008), Rocha (2005; 2006, 2010); Serafino (1993), United States Agency for International Development - USAID (2006); and Zalaquett and Wheelock (2006). Also incorporated into datasets are insights culled from a participative graphing exercise conducted across Nicaraguan sectors (Appendix A), documented in M. Hamilton (2012).

69. The tendency for network affiliations are analyzed by Alex-Assensoh (1997); Bienenstock et al. (1990); Curtis and Zurcher (1973); Etziono (1975); Gates (2002), Lofland (1977); McAdam and Paulsen (1993); Oliver (1984); Snow et al. (1980); Vendley (2001), and Weimann (1994); etc.

The next causal relationship in figure 3-1 provides the analytic crux of the loop. A *reinforcing* link connects the "Probability of Militant Contact" to "Militant Network Contagion Multiplier". "Contagion" is most likely when the social networks of young people are dominated by those already mobilized for the militant cause.[70]

Conceptual underpinnings of this "contact-contagion" relationship are well supported in the multidisciplinary literature, including linkages to social movements, system dynamic archetypes, organizational management, and empirical studies of youth violence. For example, in the social movements literature, MacCulloch (2001, 12-13) adapts the idea of a "revolutionary bandwagon" (Kuran 1991), arguing that observing one's peers rebel "may trigger another defection from a person who sees that there is now more opposition and fewer hostile State supporters to be faced."[71] In the systems dynamics literature, Sterman (2000, 303) explains the systems archetype of "pandemics", tracing how "disease spreads through contact between infected and susceptible individuals." In the organizational management literature, Shapiro (2010, 20) applies the logic of "contagion" to effective corporate transformations, noting the emergence of an "infectious attitude of enthusiasm" when idea "Advocates come in contact with Apathetics."[72] Finally, a global cross-case analysis of youth violence by

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70. Ten-year percentage shifts in the probable interactions between the *Militant* population and actors of a given cohort (for example, *Opposition*) results in a corresponding adjustment to the latter cohort's calculated contagion multiplier. The initial value is normalized to 1 in the model.

71. McAdam and Paulsen (1993, 662) offer a more precise account of mobilization dynamics: "The ultimate decision to participate in a movement would depend on four limiting conditions*:* (1) the occurrence of a specific recruiting attempt, (2) the successful linkage of movement and identity, (3) support for that linkage from persons who normally serve to sustain the identity in question, and (4) the absence of strong opposition from others on whom other salient identities depend."

72. The management text *Creating Contagious Commitment* (Shapiro 2010) operationalizes lessons from Gladwell (2000); Ball (2004); and E. Rogers (1962) for corporate change management.

Dowdney (2005, 86) highlights the importance of reference groups (particularly

family and friends) and of exposure (street ties to armed groups) as determinants of

violent youth mobilization.[73] Direct recruitment is treated as rare in the absence of

supportive social networks.[74]

The causal relationship that closes the loop in figure 3-1 links the "Militant

Network Contagion Multiplier" to "Attractiveness".[75] Considered as a whole, the

"Social Network Contagion Loop" is analogous to a contagious disease outbreak or a

word of mouth marketing campaign.[76] Any growth in the pool of infected individuals

facilitates contact with the previously unaffected (yet susceptible) actors, enhancing

infection rates and kicking off an iterative, *reinforcing* cycle of contagion, at least in

absence of *balancing* measures. Adapted to project themes, this first of four *Groups

and Identity* loops highlights the impact of network dynamics for armed mobilization.

Loop #2: Youth Bulge Demographic

The second *Groups and Identity* causal loop (diagrammed in figure 3-2) is the

"Youth Bulge Demographic Loop". The loop rationale is simple: unrestrained youth

population growth combined with increasing militant "Attractiveness" contributes to

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73. Based on comparative analysis of youth mobilization in El Salvador, Brazil, South Africa, Nigeria, etc. (Dowdney 2005, 338), when youth reference groups "offer varied options to respond to risk factors… they are less susceptible to influences that encourage them to join (armed groups)."

74. Humphries and Weinstein (2008, 453) join Kuran (1989; 1991); Lohmann (1993); and Van Belle (1996) in emphasizing mass dynamics of armed recruitment: "Conditions for joining late in a revolution may be considerably less onerous than those for joining early on", due to contagion.

75. Both variables are normalized to initial values of 1 for the first year of model simulation. Then, in subsequent iterations of the simulated timeline, the value calculated for "Attractiveness" is influenced by relative changes to "Militant Network Contagion", in combination with other factors.

76. A key word of mouth marketing text argues for "allowing consumers (and other stakeholders) to shape brand meaning and endorse the brand to others (Wipperfurth 2005, 6)."

a *reinforcing* avalanche effect for the "Level of Conflict" and total "Number of Youth Militants". Relationships are traced around the causal loop diagram, beginning with the posited link between "Youth Population" and "Number of Youth Militants".[77]

In figure 3-2, the "Number of Youth Militants" is dependent on disaggregated cohort measures of the "Youth Population". As described for the previous loop (e.g., figure 3-1), changes in *Militant* population are influenced, on one hand, by political cohort flows (regulated by "Attractiveness for Militant Mobilization") and, on the other, by demographic flows, which include cohort birth, death, and aging rates.[78]
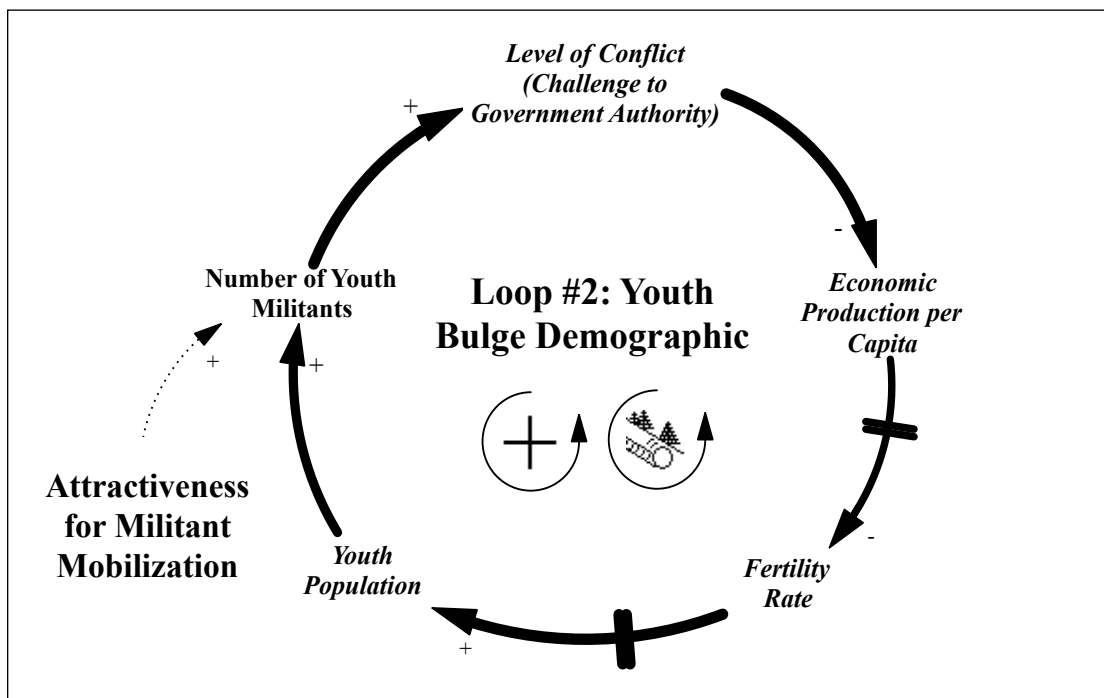
Figure 3-2. Groups and identity causal loop #2: "Youth bulge demographic".

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77. The model focuses on "Youth Militants" without including the more static elder sectors. As discussed in Chapter 1, radical mobilization is most likely in youth populations, due not only to a pursuit for meaning (Erikson 1968; Wessells 2005), but also to their web of transitions (figure 1-3).

78. For Nicaragua, data from Wilke [ed.](2002) is integrated with UN (2007) estimates to enhance model accuracy for early years of simulation. For Sri Lanka, data from Abeyratne (1998, 140, 229), Government of Sri Lanka (2008), and Karunatilake (1987, 187) delineate ethnic percentages.

Next, the *reinforcing* relationship in figure 3-2 between "Number of Youth Militants" and "Level of Conflict (Challenge to Government Authority)" reflects the implicit manpower and human capital needs of armed groups to wage campaigns of civil violence over time.[79] The existence and directionality of this causal link is well supported in the recent literature on conflict and insurgency dynamics.[80] However, its precise specification in relation to the other causes of violence falls beyond the scope of this project's research questions.[81] Therefore, the model uses empirical reference data (and not simulated estimates) for its yearly calculations of conflict intensity.

For Sri Lanka, the most reliable, comprehensive data source on civil violence is the conflict event fever chart data by Richardson (2005), which terminates in 1988. Subsequent data points have been extrapolated from the Global Terrorism Database (National Consortium for the Study of Terrorism and Responses to Terrorism - START 2011), with consideration of other well-used global datasets: Major Episodes of Political Violence (Marshall 2010); Political Instability Task Force (Marshall et al. 2009); and the *World Handbook on Political Indicators* (Jenkins et al. 2004), etc. The estimates are normalized for continuation of Richardson (2005) values. In Nicaragua, where accuracy of violence event data for the 1970s and 1980s has been called into

79. Project application of the "Level of Conflict" variable draws on Richardson's (2005) "fever chart" approach to violence and Tilly's (2005a) complementary work on "contentious politics". "Conflict" encompasses a spectrum of extra-legal, often armed protest events "against the government or the established order of things" and may be graphed according to scope and intensity of its outbreak (Richardson 2005, 76). Carey (2006, 1) argues violent and non-violent conflict should not be modeled "as completely separate events, but as different points on one continuum" of contentious politics.

80. See discussion by E. Anderson (2006; 2009); Choucri et al. (2007); and Wood (2010); etc.

81. See Richardson (2005) for the most nuanced systems treatment of the theme. Quantitative work on the causal factors of civil war includes Berman et al. (2009); Blattman and Miguel (2010); P. Collier and Hoeffler (1998, 2000; 2004); Fearon and Laitin (1999, 2003); Gates (2002); Grossman (1991); Urdal (2004; 2005); and authors in the *Journal of Peace Research*, among other publications.

question due to data planting and Cold War media manipulation (Brockett 1992), the

yearly estimates of global datasets identified above are checked against results of a

participative graphing exercise (Appendix A) and diverse qualitative data sources.[82]

Remaining variable relationships in figure 3-2 together produce a *reinforcing*

effect. Increases in "Level of Conflict" are expected to exert downward pressure on

"Economic Production per Capita".[83] Over the long term, sustained economic decay

is expected to increase "Fertility Rate" and, after an aging delay, eventually augment

the "Youth Population" (assuming relatively consistent mortality rates).

Of course, the fate of a national economy is influenced by myriad factors

(local, regional, and global) far beyond a particular conflict dynamic.[84] Therefore, to

enhance the model's parsimony and support a more accurate estimation of militant

numbers (the focus of project research questions), reference economic data has been

introduced to the model simulation for both of the country cases analyzed here.[85]

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82. See details in the project data archive (M. Hamilton 2012). Examples include Booth et al. (2006); Butler et al. (2005); Grossman (2005); Kinzer (1991); Reed (2004); Rocha (2005); Rodgers (2005); Rodgers et al. (2009); Tatar (2005); Vanden and Prevost (1993); and Zimmerman (2000), etc.

83. This *balancing* relationship is documented in work by Arunatilake et al. (2000 and 2001); M. Brown and Rosecrance (1999); P. Collier (1999), P. Collier et al. (2003); di Addario (1997); Imai and Weinstein (2000); Richardson and Samarasinghe (1991); and Skaperdas (2009), among others.

84. In small countries like Nicaragua and Sri Lanka, external shocks and global influences can play a dominant role in national economic outcomes (e.g., Escaith 2001; Mittelman 2000; Ocampo 2002; and Richardson 1999). In addition to other measurement concerns, this external dynamic creates significant challenges for setting model boundaries. Early model configurations incorporated a Harrod-Domar production function (Harrod 1939), much like Richardson and Milstead (1986). It later adapted a Cobb-Douglas function (Cobb and Douglas 1928) from Mass (1975) and Wheat (2007) to draw out labor-driven aspects of national production. Endogenous growth aspects, highlighting human capital and technology contributions, were considered from Jones (2001) and Weber (2007), in later modeling.

85. Primary longitudinal sources for Sri Lanka and Nicaragua data are the World Bank (2012) and International Monetary Fund – IMF (2010); however, reference figures are adapted in particular years to incorporate more reliable data, adjusting for purchasing power parity (PPP). For Sri Lanka, sources include Peebles (1982) and Richardson (2005, supporting documentation). A key source for Nicaragua is MOxLAD, the Montevideo-Oxford Latin American Economic History Data Base (Oxford University 2012). See M. Hamilton (2012) for more details on economic reference data for the model.

The structure of Figure 3-2 also sets the stage for an alternative, development-oriented scenario: sustained economic growth and targeted social investment tend to contribute to a pattern of "demographic transition" for a modernizing nation-state.[86] Still, culture-driven delays in transitioning societies mean diminishing fertility rates cannot keep up with more immediate gains to life expectancy and maternal and infant health. This catalyzes a short-term "baby boom" and a subsequent "youth bulge" for communities, especially those referred to as "stage two" transitioning societies.[87]

Loop #3: Culture of Violence

The next *Groups and Identity* loop, entitled "Culture of Violence", is featured on the lower right side of Figure 3-3. Its *reinforcing* causal dynamic is dominated by a community's "Cultural Openness to Violence", a variable determined by four main contributors: the community's "Level of Conflict", the intensity of "Government Repression" experienced, the "Neighborhood Effects of Regional Violence", and the related impacts of "Neighborhood Effects of Regional Democracy".[88]

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86. As per the literature, this results first in lower mortality rates, then in lower birth rates, and finally in lower youth counts. According to "demographic transition" theories, the economic and health gains are expected to shift cultural norms and eventually alter family planning incentives. Fertility rate and life expectancy curves utilized in the early configurations of this model were based on Model Life Tables of the UN (1982) and Meadows et al. (2004). To tune model accuracy for calculating militant numbers, however, a reliable reference source (UN 2007) was substituted for the case simulations.

87. See Caldwell (1976); Chesnais (1992); K. Davis (1945 and 1963); Meadows et al. (1972 and 1992); and Pool et al. [eds.] (2006). Resultant institutional crowding effects of a "Youth Bulge Demographic" are treated in subsequent discussion of *Grievances and (Perceived) Injustice*.

88. "Cultural Openness to Violence" is operationalized as an indexed stock variable in the model, increasing or decreasing based on multiplicative change effects from its four causal inputs. See discussion in Appendix B, along with other key model variables.
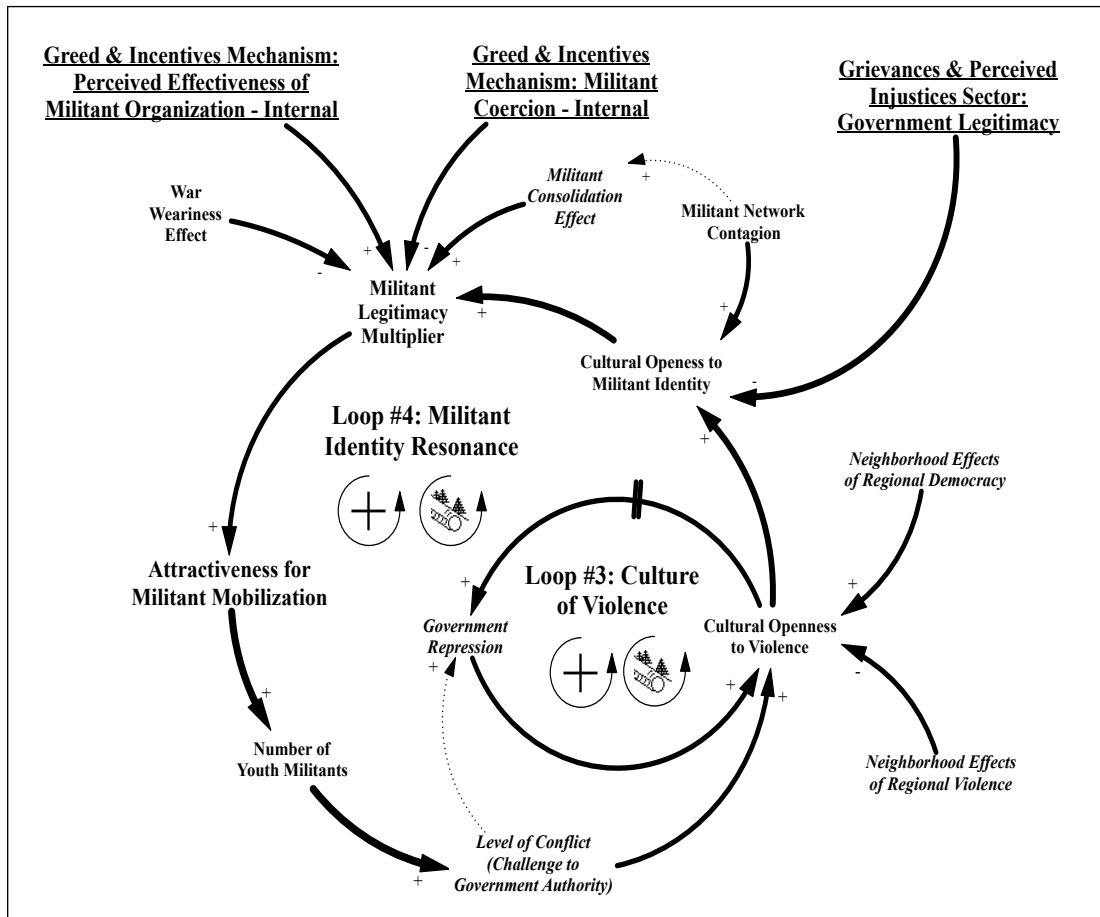
Figure 3-3. Groups and identity causal loops #3 and #4:"Culture of violence" and "militant identity resonance".

In figure 3-3, year-to-year growth in a community's "Level of Conflict" is expected to increase its "Cultural Openness to Violence", which *reinforces* overall causal loop effects.[89] Alternately, trends of diminishing "Conflict" should lower a community's tolerance for violence over time. "Cultural Openness" ultimately centers on cultural expectations: if violence is the norm, its outbreak is likely more palatable. A similar *reinforcing* influence for "Cultural Openness to Violence" is expected from

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89. This *reinforcing* culture of violence relationship is discussed by Balcells Ventura (2010), Brett and Specht (2004); S. Brown (1994); the Commission on Global Governance (1995); Muller and Seligson (1994); Rupesinghe and Rubio [eds.] (1994); Ross (1993); and Shy (1971), among others.

"Government Repression", whether the repressive pattern is increasing or decreasing over time.[90] Specifications for the "Repression" variable follow later in this chapter.

The remaining two contributors to a community's "Cultural Openness to Violence", *reinforcing* "Neighborhood Effects of Regional Violence" and *balancing* "Neighborhood Effects of Regional Democracy", are exogenous to feedback effects from the model (and thus italicized as reference variables in figure 3-3). Still, both of these provide critical inputs. Global norm diffusion and external political interference have proven influential for domestic-level attitudes/ behaviors in a number of global settings (Miall et al. 2000).[91] Contagion or demonstration effects can be catalyzed by regional trends of civil violence[92] or regional trends of democratic consolidation.[93] In combination with the more local effects of "Level of Conflict" and "Government Repression", external "Neighborhood Effects" of violence and/or democracy exert upward or downward pressure on a community's "Cultural Openness to Violence".

The delayed causal arrow traced from "Cultural Openness to Violence" back to "Government Repression" (in figure 3-3) posits that broadly shared community norms in support of democracy and non-violence can limit the scope of repressive

90. This causal relationship operationalizes observations by Booth and Richard (1996, 2000); Henderson (1991); and Jongman (1991) that increased repression over time undermines a community's democratic values and facilitates normative defenses for the use of force.

91. According to Miall et al. (2000: 81), conflict–related "regional effects are both outwards – spill-over, contagion, diffusion – and inwards – influence, interference, intervention."

92. Regarding "contagion" effects of regional violence, see M. Brown (1996); Buhaug and Gleditsch (2005); Esty et al. (1995); Rizvi (1981); J. Vasquez (1992); and Ward and Gleditsch (2002).

93. The" demonstration" effects of regional democratization are highlighted in the work of Huntington (1991); Markoff (1996); Pevehouse (2002); Przeworski (1991); and Richardson and Hermann (1998). The model uses the Major Episodes of Political Violence (MEPV) dataset of the Center for Systemic Peace (Marshall 2010) as primary source data on regional violence, and considers "Democracy" and "Autocracy" measures from the Polity IV project (Marshall and Jaggers 2009) to simulate similar data for regional democracy. See details in model documentation (Hamilton 2012).

violence.[94] As already discussed, detail for the "Government Repression" variable, including its definition, theoretical underpinnings, and source data, is highlighted in subsequent exploration of the *Grievances and (Perceived) Injustice* mechanism.

Loop #4: Militant Identity Resonance

The fourth and final *Groups and Identities* loop is labeled "Militant Identity Resonance", appearing on the left side of figure 3-3. It is *reinforcing* and builds on several of the causal relationships previously analyzed.[95] Remaining causal linkages unique to "Militant Identity Resonance" are treated below, with attention to "Cultural Openness to Militant Identity" and the "Militant Legitimacy Multiplier".

The focal variable for this loop, a community's "Cultural Openness to Militant Identity", is influenced by three causal contributors: "Cultural Openness to Violence", "Government Legitimacy", and "Militant Network Contagion".[96] The first of these contributors, the recently discussed "Cultural Openness to Violence", provides armed groups a discursive space to advocate contentious action within culturally accepted

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94. This is a nonlinear causal relationship with strong support in the literature. See Booth and Richard (1996 and 2000), Davenport and Armstrong (2004); Davenport (2007); Franklin (2009); Henderson (1991); and Paxton (2002), etc. However, the link's precise impact vis-à-vis other causal factors, including the "Level of Conflict, is not specified in the model due to other research priorities.

95. For example, it shares with the "Social Network Contagion Loop" (figure 3-1) the causal path from the "Attractiveness of Militant Mobilization" to "Militant Network Contagion Factor". With the "Youth Bulge Demographic Loop" (figure 3-2), it shares the causal path from militant "Attractiveness" to "Level of Conflict". And with the "Culture of Violence Loop" (figure 3-3), it shares the linkage from "Level of Conflict" to the "Cultural Openness to Violence".

96. Year-to-year changes in these contributors' values, multiplied together, influence the rate of change in the "Cultural Openness to Militant Identity", configured in the model as an indexed stock. There are obvious reference data limitations in using an abstract index like this one; however, order of magnitude shifts can be analyzed year to year not unlike other more empirically grounded variables.

norms of a community.[97] The second contributor, falling "Government Legitimacy",

provides armed groups a scapegoat for community frustrations, particularly when the

state's legitimacy is weak.[98] The third contributor to militant openness, "Militant

Network Contagion", should be familiar to the reader (introduced in figure 3-1): in

this case, though, it highlights the network access needed by armed groups to exert

their influence amid economic and political crises.[99]

The next major variable analyzed for the "Militant Identity Resonance Loop"

(figure 3-3) is the "Militant Legitimacy Multiplier". Its value depends on five causal

variables, considered in combination. The first contributor is the "Cultural Openness

to Militant Identity" (just described). "Militant Legitimacy" requires discursive space

for an armed group to frame a compelling narrative and then leverage its supportive

networks.[100] The second causal contributor is "Perceived Effectiveness of Militant

Organization - Internal", imported from the *Greed and Incentives* mechanism (which

will be discussed later in this chapter). This link highlights the necessity of perceived

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97. Support for this causal linkage is found in Brockett (2005); Gallaher (2003); M. Hamilton (2006); R. Horowitz and Schwartz (1974); Rentshler (1995); Richardson (2005); and Vendley (2001).

98. Underlined variables in causal loop diagrams signify "imports" (or causal overlap) with another mechanism in the project model. The "Government Legitimacy" variable, underlined in Figure 3-3, is imported from the *Grievances and (Perceived) Injustice* sector of the model, in which it plays a key explanatory role. Thus, variable definition and configuration details are treated subsequently. As far as scapegoating, Brockett (2005, 316) claims, "To be a powerful motivational force, grievances need to grow not only from a grave injustice but also have a clear agent… held responsible."

99. See discussion by McAdam and Paulsen (1993); Oliver (1984); Weinstein (2007), etc. While this configuration in a sense double counts the "Militant Network Contagion Multiplier", it is argued that mobilization-infused networks are a necessary condition for "Militant Identity Resonance".

100. Market analyst Wipperfurth (2005: 256) offers advice relevant to militant strategists: "It all starts with you telling a story, but tailoring that story to exactly the audience you have in mind, and introducing the story to them at a time and place where they will be able to remember your story… It's about making those who hear the story become your storytellers, and allowing them to make up and add parts to the story as long as they get the title right and the critical elements."

militant capacity, that is the ability of an armed group to challenge state institutions, an effort aided by its value-added marketing in the targeted community.[101] The third contributor (adverse) to armed group legitimacy is "Militant Coercion – Internal", another variable imported from the *Greed and Incentives* mechanism.[102] It highlights counterproductive legitimacy effects when a group wrests control of the community's resources via force, creating discontent and distrust. The fourth causal contributor to "Militant Legitimacy" is *balancing* "War Weariness".[103] Extended periods of conflict and repression undermine militant commitment, diminishing hope for victory with no end in sight for armed struggle. The fifth and final contributor to "Legitimacy" is "Militant Consolidation", which highlights the mobilizing benefits of a relative monopoly for state challenge. "Militant Consolidation Effects" refer to the degree of competition encountered by a given militant group in challenging state authority. Reference index values are estimated across the simulated model timeline based on contextual insights and historical event analysis drawn from diverse data sources.[104]

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101. Weinstein (2007, 45) describes the use of violence as "the outcome of an interaction in which rebel groups act strategically in seeking the support of non-combatants."

102. The underlined variables imported from the *Greed and Incentives* mechanism ("Perceived Militant Effectiveness- Internal" and "Militant Coercion- Internal") are discussed later in the chapter.

103. "War Weariness" considers the effects of sustained violence (militant and state-initiated) on the spirit and confidence of fighting forces, as discussed by E. Anderson (2006); Ballentine and Nitzschke (2003); Biswas (2006), P. Collier and Sambanis (2005a; 2005b); and Gamburd (2004); etc. Effects are lagged over several years to capture legacy effects of a high incidence of violence.

104. For Sri Lanka, examples include Bandarage (2009); Blood (1988); Gunaratna (1998; 1999; 2001); Gunawardena (2005); R. Levy (1988); McGowan (1992); Obeyesekere (1974); Richardson (2005); Roberts (2007); and Swamy (1994; 2004), among others. For Nicaragua, examples include Baracco (2005); Booth et al. (2006); Butler, Gates, and Leiby (2005); Grossman (2005); Instituto de Estudio del Sandinismo (1982); Kagan (1996); Kinzer (1991); Maclure and Sotelo (2004); Merrill [ed.] (1993); Núñez, Cuadra and Ramírez (1984); Ortega (1978); Reed (2004); Rocha (2005); Rodgers (2003; 2004; 2005; and 2006); Rodgers et al. (2009); Tatar (2005); Vanden and Prevost (1993); and Zimmerman (2000), among others.

Legitimacy increases when an armed group can eliminate the distortions and mixed

messages of competing voices, whether from armed groups or non-violent opposition.

"Militant Legitimacy", in sum, requires armed groups to forge supportive

narratives and networks that resonate in the community, to demonstrate their capacity

for future success, to limit their acts of community coercion, to avoid war weariness

in their members and the surrounding community, and to consolidate influence for a

singular source of strategic messaging.[105] Based on these five inputs, the "Militant

Legitimacy Multiplier" influences the "Attractiveness for Militant Mobilization" and

restarts the iterative loop dynamic for another year of growth or decay effects.[106]

<p align="center">Integrated Loop Structure for the *Groups
and Identity* Causal Mechanism</p>

The four loops comprising the *Groups and Identity* mechanism are connected

in Figure 3-4. Distinct rationales of "Social Network Contagion", "Youth Bulge",

"Culture of Violence", and "Militant Identity Resonance" are now considered in

combination. Together they offer a comprehensive narrative of how the interactive

dynamics of identity politics and group belonging can unleash an avalanche effect in

the "Number of Youth Militants", either for growth or decline.

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105. The approach here is not dissimilar to Weinstein (2007, 48-50), who highlights the role of "social endowments" (Tilly 1978) and "social capital" (Putnam 1993) in armed group contention. Of course, *Greed and Incentives* can crowd out identity-based mobilization in some settings. According to Weinstein (2007, 52), "Because rebel groups can organize quickly in resource-rich environments, collective identity rooted in identities, beliefs, and norms never takes hold."

106. The six direct "Attractiveness" inputs are normalized to one for the initial year of simulation. In subsequent years, "Militant Legitimacy", in conjunction with the model's five other "multipliers", exerts a *reinforcing* influence on "Attractiveness" based on relative strength compared to other factors. See the project's online archive for comprehensive documentation (M. Hamilton 2012).
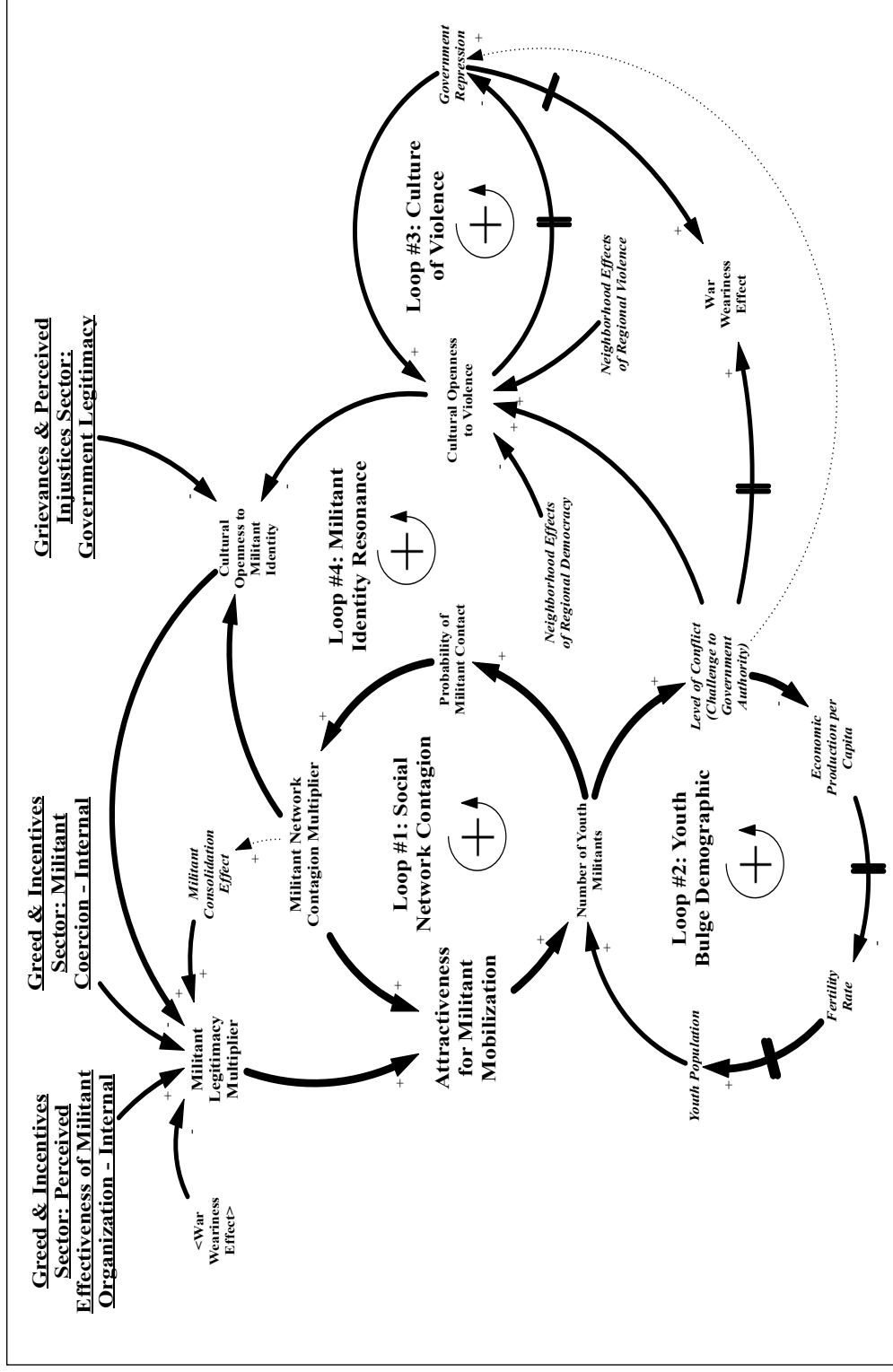
Figure 3-4. Groups and identity mechanism: Causal integration of loops #1-4.

Describing the Grievances and (Perceived)
Injustices Mechanism

The second causal mechanism analyzed in this chapter explores the

Grievances and (Perceived) Injustice theory cluster introduced in Chapter 1. To

review, it explains armed mobilization as a function of youth cohorts' frustrated

expectations, whether economic or political. The mechanism includes individual and

collective arguments related to violence-catalyzing grievances, with relevant theories

and empirical observations reflected in the eight causal loop descriptions that follow.

Loop #1: Institutional Crowding

The first *Grievances and (Perceived) Injustice* loop explains a causal scenario

for youth rebellion if jobs and consumption (a given economy's "carrying capacity")

cannot keep pace with population growth, especially for those cohorts most at risk.[107]

The "Institutional Crowding Loop" (figure 3-5) builds on many of the same causal

relationships described previously for the "Youth Bulge Demographic Loop" (figure

3-2) in relation to the model's *Groups and Identity* mechanism. The *Grievance*-based

"Institutional Crowding", however, downplays demographic effects of group identity

and biological tendencies, focusing instead on the relative economic opportunities

available to youth cohorts in a competitive and resource-constrained environment.

The "Institutional Crowding Loop" in figure 3-5 traces the familiar "Youth

Bulge Demographic" arrows from militant "Attractiveness" to "Number of Youth

Militants" (*reinforcing* effect), then to "Level of Conflict" (*reinforcing* effect), and,

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107. The concept of "carrying capacity" is common in environmental and economic modeling
(Forrester 1969 and 1971; Jacobi 2006, 220; Meadows et al. 1972 and 1992; etc.) as well as political
and conflict-related applications (Richardson 2005; Thomas and Casebeer 2004, 79; etc.)

finally, to "Economic Production per Capita" (*balancing* effect).[108] Here, though, the

two causal loops (and their associated mechanism rationales) begin to diverge.
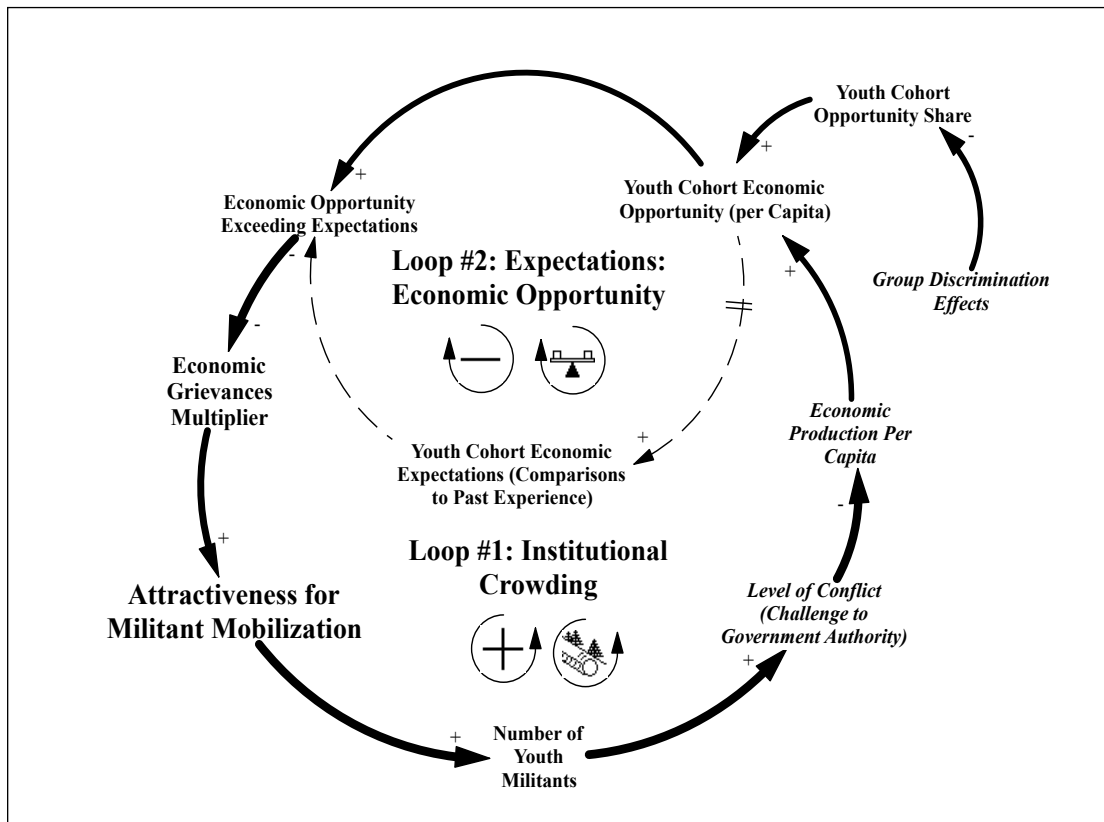
Figure 3-5. Grievances and (perceived) injustice causal loops #1 and #2: "Institutional crowding" and "expectations: economic opportunity".

According to the causal logic of the "Institutional Crowding Loop" (shown in

the lower section of figure 3-5), a downturn in "Economic Production per Capita",

whether catalyzed by economic stagnation or population gains, also undermines per

capita "Youth Cohort Economic Opportunity". In the model, youth opportunity is

operationalized by two cohort-specific measures considered in combination: the jobs

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108. In a healthy economy, production increases are expected to keep pace with population growth. Implicit in the model is the assumption that community economic prowess should be considered in per capita terms for the sake of longitudinal and cross-case comparison.

estimated per cohort youth and the level of consumption per cohort youth. Rationales

for both measures are well documented within the literature. Unemployment is linked

to grievances (and violence) by Barker (2005); J. Davies (1962; 1962; 1969); Gurr

(1970); etc. Meanwhile, adverse effects of consumption shortfalls have been probed

by Dube and Vargas (2008); Richardson (2005); and Urdal (2004; 2006); etc.[109]

An original queuing structure in the model allocates yearly opportunity levels

for each youth cohort, specifying "Opportunity Share" of community resources vis-à-

vis other competing political and age cohorts. The queue assumes preferential access

to jobs and consumable income for the community's elders and politically entrenched

sectors, which are expected to reap unequal rewards across contexts.[110]

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109. National employment and consumption data have been estimated by synthesizing and adapting the production parameters of diverse modeling sources, including: World 3 systems model in Meadows et al. (2004); economic cycles of Mass (1975); and complex economic systems in Wheat (2007). However, for data consistency, simulated estimates for unemployment and consumption are verified and adjusted to empirical case reference data. Sources for Nicaraguan unemployment include government data in the annual *Statistical Yearbook for Latin America and the Caribbean* (Economic Commission for Latin America and the Caribbean – ECLAC (1976-2010), Wilkie [ed.] (2002), and the online databanks of the International Labor Organization – ILO (2011) and World Bank (2012), tempered with competing figures from Booth (1982; 1991) and T. Walker and Armony [eds.] (2000); etc. Sri Lanka sources on unemployment include annual government yearbooks (Central Bank of Sri Lanka 1978-2010) along with Abeyratne (1998; 2004); Attanayake (2001); Hettige (2000; 2002; 2004); Lakshman (1997; 2002); Karunatilake (1987); and Matthews (1995). Inflation and consumption estimates for both country cases include the World Bank (2012), International Monetary Fund - IMF (2011), and International Futures - IFS (Hughes 2012). ECLAC (2010) offers case-based consumption inputs for Nicaragua. For Sri Lanka, excellent sources include Peebles (1982); Karunatilake (1987); and Richardson (2005, background datasets).

110. "Opportunity Share" queuing is discussed by Alex-Assensoh (1997) and is implicit in the *MARGene* databank and ethnic group analysis of the Minorities at Risk Project (2009). Tilly (1998) observes four interlocking mechanisms of "durable inequality" favoring the powerful in opportunity queuing: 1) "Exploitation" sees elites use surpluses to reward collaborators, 2) "Opportunity hoarding" makes sure rewards are limited to segregated networks, 3) "Emulation" creates a sense of inevitability via diffusion of inequality norms, and 4) "Adapation" expresses how overlapping routines articulate unequal social arrangements. Regarding age-specific inequality, the UN (2003, 55) measures global youth unemployment at up to three times that of elder cohorts. Model estimates reflect key empirical adaptations case-specific to Sri Lanka (Abeyratne 2004; Karunaratne 2008; Karunatilake 1987; Spencer 2000, Sriskandarajah 2005; Stewart 2001; etc.) and Nicaragua (Booth 1991; Horton 1998; Muller et al. 1995; Rodgers 2006; Székely and Hilgert 1999; etc.). "Group Discrimination Effects", an exogenous variable, is utilized as needed in model simulations to reflect case-specific policy shocks.

Remaining causal relationships to close the "Institutional Crowding Loop" are interlocked with a second loop in figure 3-5, the *balancing* "Expectations: Economic Opportunities Loop", which appears in dashed lines at the top of the same diagram.[111] Considered as a comprehensive causal loop, "Institutional Crowding" is *reinforcing*: the enhanced competition for scarce economic resources heightens youth "Economic Grievances", "Militant Attractiveness", and eventually "Level of Conflict", restarting a less than virtuous cycle with damage to economic infrastructure and opportunity. Left in isolation, the *reinforcing* causal relationships of the "Institutional Crowding Loop" (figure 3-5) create an avalanche effect of spiraling opportunity shortfalls and runaway "Economic Grievances" over time.

Loop #2: Expectations: Economic Opportunity

The next loop tells a story of youth rebellion not because of unemployment or poverty per se, but rather the relative frustration of unmet expectations: a comparison of present realities to past experiences. The "Expectations Loop" (top of figure 3-5) de-emphasizes absolute measures of cohort opportunity, and examines how cohort "Expectations" condition the effects of "Institutional Crowding" for year-to-year "Economic Grievances". Its arrows are dashed due to an overall *balancing* influence.

"Economic Grievances" (and thus militant "Attractiveness") are expected to rise when youth access to jobs and income ("Youth Cohort Economic Opportunity) cannot keep pace with their desired levels ("Youth Cohort Economic Expectations"). Theoretical underpinnings for the loop include the classic "J-curve" explanations of

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111. Shared variables are treated in description for "Expectations: Economic Opportunities."

political unrest offered by J. Davies (1961; 1963; 1969); Gurr (1970); and Huntington (1971); etc. The "J-Curve" refers to the upside-down "J" shape that appears when graphing a sharp economic downturn following a period of extended growth.[112]

In the model, an "Expectations" gap is tallied in relation to employment and consumption for a given cohort.[113] It is assumed that job seekers accept good news about economic trends more quickly than bad news, implying differential delays in adjusting employment expectations (Richardson and Milstead 1986).[114] Consumption effects in the model utilize the same expectations logic as employment, comparing cohorts' consumable income per capita to "desired" consumption level per youth.[115]

To close the loop, "Economic Grievances" combines with five other causal multipliers/ factors (discussed elsewhere in this chapter and shown in figure 2-7) to

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112. Frustration-aggression emerges from "perceived discrepancy between value expectations and value capabilities (Gurr 1970, 37)." According to theory advocates, these crisis-driven frustrations are sufficient to overcome the "collective action problem" (Olson 1965) expected to plague would-be mobilizers of violent and non-violent movements. More recent literature treatments of expectation-driven grievances include Atran (2004); Richardson and Milstead (1986); and Richardson (2005).

113. Unemployment effects compare per capita job availability to "desired" job ratio per youth. The latter figure is calculated based on a trajectory of the cohort's recent collective experience in the job market, conditioned by a time delay to account for shifts in cohort expectations.

114. The expectations sub-structure built into the model draws extensively from replicating the work of Richardson and Milstead (1986). However, time horizons are shortened based on the youth demographic, while the expectation application is extended beyond Richardson and Milstead's original scope of analysis to explain employment, conflict, and repression dynamics. Two additional multiplier factors were considered here, each with potential to impact economic expectations. The "Globalization Demonstration Effects" variable follows the logic of political "Neighborhood Effects" and have been discussed in the literature as "social mobilization" by Duff and McCamant (1976) and "tunnel effects" by Hirschman (1973). "Education Effects", meanwhile, posit that educated students tend to queue (Gunawardena 2002) or rebel if frustrated (Brockett 2005; Urdal 2006; etc.). These variables are not incorporated explicitly in the base model but could be examined in future adaptations or extensions.

115. In model simulation, the per capita ratios for both measures (the actual to "desired" job ratio and consumption ratio) are multiplied together to determine the extent of "Economic Opportunity Exceeding Expectations" each year. If the combined value exceeds one (calculating for example, a value of 1.5), this means that economic opportunity has superseded cohort expectations, thus triggering heightened expectations for future iterations. It also triggers, for the current year, an inverse effect for the "Economic Grievances Multiplier" (calculating 0.67, or 1 divided by 1.5, applied to this scenario).

influence the "Attractiveness for Militant Mobilization", with subsequent effects for "Number of Youth Militants". The relative contribution to militant "Attractiveness" by "Economic Grievances" ultimately depends on year-to-year outcomes in the loop competition of figure 3-5, specifically the struggle for causal dominance between a *reinforcing* "Institutional Crowding Loop" and a *balancing* "Expectations Loop".[116]

<div align="center">

Loop #3: Government Illegitimacy:
Group Comparison Effect

</div>

Comparison to past experience is not the only means for adverse "Economic Opportunity" to catalyze "Attractiveness" of armed mobilization for frustrated youth. According to the "Government Illegitimacy Loop: Group Comparison Effect" (figure 3-6), a young person is more likely to rebel when the relative opportunities observed for a rival group are perceived to outstrip one's own employment and income access. The loop traces a causal path similar to aforementioned "Institutional Crowding" and "Expectations" loop dynamics (in figure 3-5). However, instead of comparing current economic opportunity to past experience, the new *reinforcing* loop emphasizes how opportunity for a cohort compares with that of other specified population sectors.

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116. Again, more comprehensive model and reference documentation is available for both of the country cases in an online data archive designed to support this project (M. Hamilton 2012).
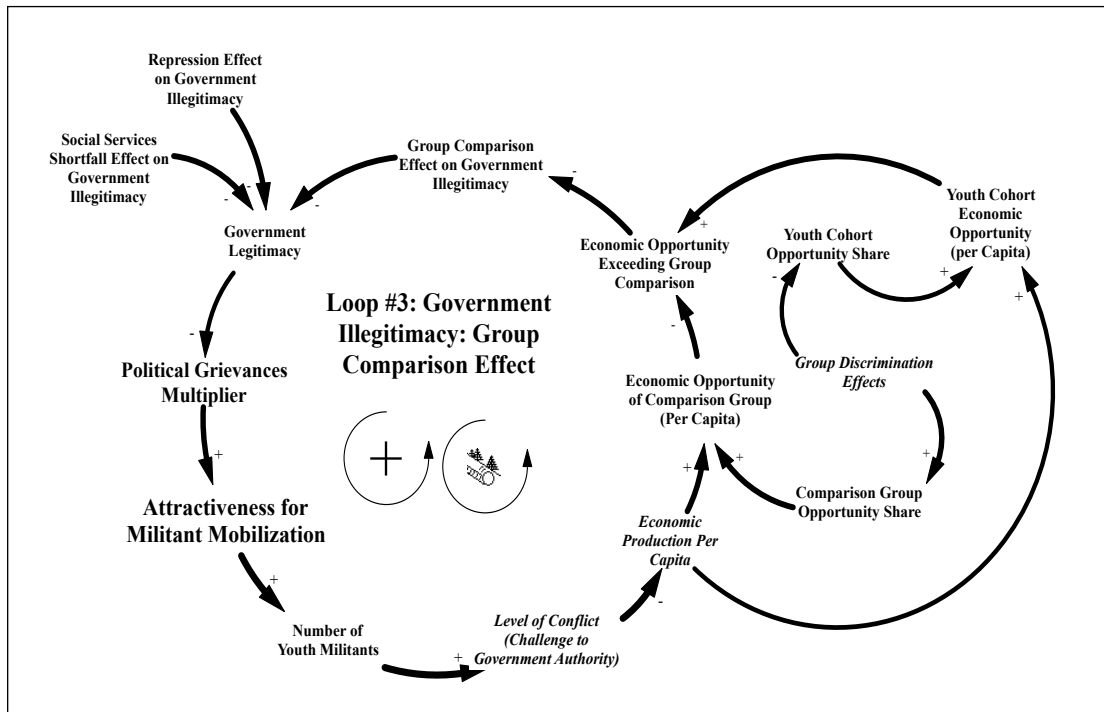
Figure 3-6. Grievances and (perceived) injustice causal loops #3: "Government illegitimacy: group comparison effect".

In figure 3-6, the causal path from militant "Attractiveness" to "Youth Cohort Economic Opportunity (Per Capita)" has been addressed in earlier loop descriptions. The first new variable is the "Comparison Group Opportunity Share", which utilizes a similar queuing logic as the "Youth Cohort Opportunity Share" (described previously for the "Institutional Crowding Loop").

The definition of a "Comparison Group" can vary by case context, but two of the most common sectors compared include community elders and competitor peer groups. Regarding community elder comparisons, Staveteig (2005) and Easterlin (1968; 1978; 1987) argue that grievances emerge when youth opportunity falls short of previous "generational cohorts": young people expect to maintain and improve on the economic status they observe in their parents. Meanwhile, peer-level comparisons

tend to draw on identity-based rivalries, which are sourced in political affiliations, ethnic groupings, or other salient categories. From political science and psychology, Gurr (2000); Jackson (1972); Runciman (1966), I. Walker and Smith [eds.] (2002), argue the salience of "fraternal", or group-based relative deprivation. And group comparisons, framed as "conspicuous consumption", are a longstanding theme in the discipline of economics (Duesenberry 1949; Nurske 1953; Veblen 1899; etc.).

In the model, the perception-inflated measure for the "Comparison Group Opportunity Share" estimates the economic power of community elders and peer political competitors (combining other youth sectors).[117] "Opportunity Share" then combines with overall "Economic Production" to determine "Economic Opportunity of Comparison Groups".[118] Relative deprivation sets in when current levels of "Youth Cohort Economic Opportunity" cannot keep pace with cohort rivals, undermining the expectations of "Economic Opportunity Exceeding Group Comparison". According to the next loop variable, "Group Comparison Effect on Government Illegitimacy", failed cohort expectations convert to frustrations and adversely impact "Government Legitimacy". Model treatment of "Legitimacy" draws on the "reservoir" metaphor of democratization theorists. If a regime can maintain sufficient "reserve" (Dahl 1971, 149) of the population's "favorable attitudes" and its "diffuse support" (Easton 1965; 1975), it can ensure institutional stability. Revolutionary leader Mao Tse-Tung (2000

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117. In the Sri Lanka case, ethnic comparisons are analyzed, calculating relative preferences for Sinhalese and Tamil cohorts. Scholars including Abeyeratne (1998); Karunatilake (1987); Peebles (1982); and Richardson (2005) offer longitudinal insights on ethnic shares of jobs and consumption as well as relative access to state social services (health, education, and infrastructure development).

118. "Economic Opportunity of Comparison Groups" uses the familiar employment and consumption queuing logic described for the "Youth Cohort Economic Opportunity (Per Capita)".

[1937]) famously referred to a nation's people as "the sea in which rebels must swim." Thus, a regime is wise to consider the depth of its legitimacy "reservoir".[119]

Allowing for the social and cognitive barriers that slow changes to anyone's institutional beliefs, shifts in "Legitimacy" are determined by "Group Comparison", in combination with two other causal inputs ("Repression" and "Social Services Shortfall" effects), both of which are treated in subsequent *Grievances* loops.[120]

Tracing through the rest of the loop, any change in "Government Legitimacy" corresponds to inverse effects for the "Political Grievances Multiplier", which operates in conjunction with five other causal factors (including previously discussed "Militant Network Contagion", "Militant Legitimacy", and "Economic Grievances") to influence "Attractiveness for Militant Mobilization" (figure 2-7). This kicks off yet another *reinforcing* loop iteration, with effects for the "Number of Youth Militants".

The "Government Illegitimacy Loop: Group Comparison Effect" (figure 3-6) addresses "Economic Opportunity"; however, due to its emphasis on group rivalries, the loop channels militant mobilization via "Political Grievances". Subsequent loops address the other two causal inputs for "Government Legitimacy", with impacts for "Political Grievances", "Attractiveness", and the "Number of Youth Militants".

---

119. Applying "bathtub dynamics" from Chapter 2 and modeling insights from Richardson and Milstead (1986), "Government Legitimacy" is configured as one of two connected "reservoirs". A *Legitimacy* reservoir competes with an *Illegitimacy* reservoir (not displayed in Figure 3-6) for the total percentage of a given population's support. "Support" points flow between the two reservoirs in each year of model simulation, shifting based on a regime's ability "to engender and maintain the belief that existing political institutions are the most appropriate ones for the society (Lipset 1959, 77)."

120. Model specification of the time delays and nonlinear table functions are adapted from Richardson and Milstead (1986); E. Anderson (2009); Choucri et al. (2007); and Saeed (1994), with key insights on cognitive dissonance from Elster (1983); Festinger (1957); and Kay et al. (2002).

Loop #4: Government Illegitimacy:
Repression Effect

The next loop explains how increases in "Government Repression" undermine
"Government Legitimacy" over time, *reinforcing* both militant "Attractiveness" and
the "Level of Violence" within a community. The "Government Illegitimacy Loop:
Repression Effect" is one of three interconnected loops appearing in figure 3-7.[121]
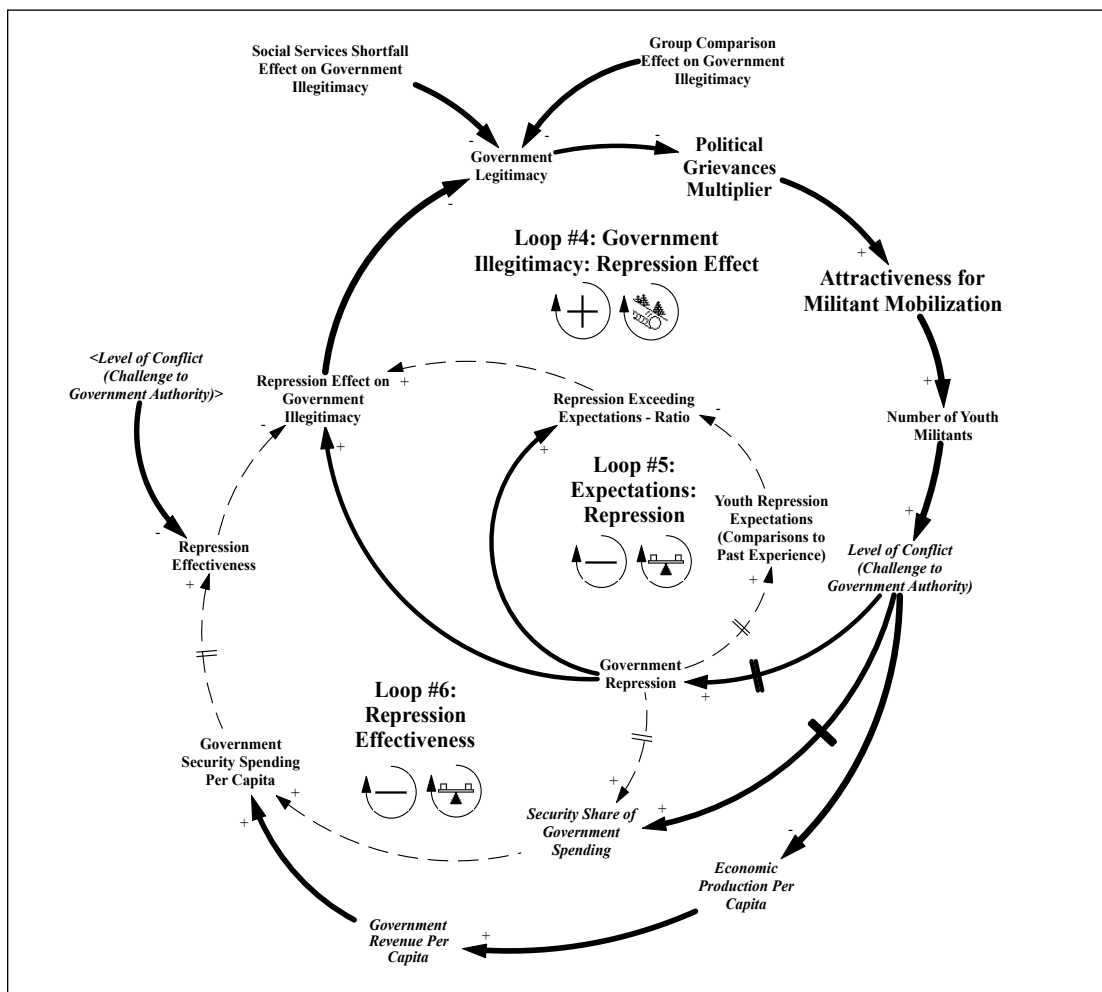
Figure 3-7. Grievances and (perceived) injustice causal loops #4-6: "Government
illegitimacy: repression effect", "expectations: repression", and "repression
effectiveness".

---

121. Its causal arguments build upon the simplified loop treatment in Chapter 2 (figure 2-5).

For the "Repression Effect" loop at the top of figure 3-7, most of the causal

relationships were already discussed.[122] The first new loop relationship considers how

the "Level of Conflict" influences the intensity of "Government Repression".[123] The

proposed *reinforcing* dynamic is well supported within the literature: all things being

equal, a government will apply coercive pressure when faced with violent challenges

to its authority.[124] However, in the complex interactions between violence and state

repression, all things are seldom equal. Attempts to model with precision a particular

regime's response to militant violence opens up causal complexity beyond the scope

---

122. The causal path from "Government Legitimacy" to militant "Attractiveness" was explained for "Group Comparisons" (in figure 3-6). Ties connecting "Attractiveness" to "Level of Conflict" were discussed for the "Youth Bulge Demographic Loop" (figure 3-2).

123. The project's working definition of repression draws from Duff and McCammant (1976, 24), who cite "the use of governmental coercion to control or eliminate actual or potential political opposition." It is operationalized as four indexed categories (Ibid), which include: 1) "suspension of constitutional guarantees" (defined elsewhere as infringements on political liberties), 2) "arrests, exiles, and executions" (defined elsewhere as state terror), 3) "restrictions on political parties" (defined elsewhere as autocracy or limited participation), and 4) "censorship of the press" (defined elsewhere as infringements on civil liberties). For the Sri Lankan case, a categorized and comprehensive dataset from Richardson (2005) is utilized for model simulation through 1988, adapted to address differences in state treatment of Sinhalese and Tamil ethnic communities. From 1988, a series of multi-source longitudinal measures are considered in combination. Category 1 considers the CIRI Empowerment Rights Index (D. Richards et al. 2001) and Freedom House Political Liberties Index (Freedom House 2011). Category 2 draws on the CIRI Physical Integrity Rights Index (Cingranelli and Richards 1999), Purdue/ Amnesty International Political Terror Scale (Gibney and Dalton 1996; Wood and Gibney 2010), and government-related indices in the *World Handbook on Political Indicators IV* (Jenkins et al. 2007). Category 3 uses Polity II and IV indices for Autocracy and Political Participation (Marshall et al. 2009), in combination with the Polyarchy Index of Democracy (Vanhanen and International Peace Research Institute 2007). Category 4 uses the Freedom House Civil Rights Index (Freedom House 2011), among other sources. The project data archive (M. Hamilton 2012) shows how distinct datasets are normalized to parameters of each category, extrapolating gaps as needed. If there are conflicting estimates, data is verified by case-specific qualitative empirics. A similar data compilation process is used to capture long-run patterns of repression in Nicaragua. Categorized sources include all of the datasets listed above, with inputs from a regional study by Bowman et al. (2005). These are combined with composite results from the participative graphing exercise undertaken across multiple Nicaraguan social sectors (Appendix A).

124. Moore (2000) highlights the importance of sequencing in leadership strategy, predicting a rational response in kind (either repression or appeasement) based on the previous challenger action. Related work by Carey (2006) finds consistent state repression in the face of dissent, when controlling for other factors. Richardson (2005) discusses conflict-repression-development feedback dynamics.

of this project.[125] Therefore, for simulation purposes, historical reference data for

"Government Repression" has been applied to both of the country case studies.[126]

Remaining causal relationships in the loop bridge "Government Repression"

and "Government Legitimacy" (figure 3-7). Absolute measures of repression" tend to

reinforce the "Repression Effect on Government Illegitimacy". As repression grows,

the relative impacts for illegitimacy increase as well, though effects are not linear.[127]

Absolute repression, though, is not the only contributor to the "Repression Effect on

Government Illegitimacy". Two other inputs, "Repression Exceeding Expectations"

(*reinforcing*) and "Repression Effectiveness" (*balancing*), are treated subsequently.[128]

Overall, the "Government Illegitimacy Loop: Repression Effect" (figure 3-7)

argues that absolute increases in repressive intensity, isolated from other loop effects,

reinforces an exponential growth dynamic for the "Number of Youth Militants".[129]

---

125. Disjointed patterns emerge in the scholarly inquiry of conflict effect on state repression. Insights on "Repression" vary based on contextual dissimilarities, including a community's level of democratic consolidation (Davenport 2007), its heritage of violence (Booth 1991; Moore 2000), its relative configuration of social divisions (Tilly 2005b), and relevant particularities of governance style (Carey 2006; Rasler 1996; Richardson 2005).

126. Strengths and limitations of this approach (and potential model extensions) are discussed in detail in Chapter 6. See M. Hamilton (2012) for access to the reference datasets used for this project.

127. At high levels of repression, illegitimacy gains tend to be more pronounced, according to E. Anderson and Black (2007); Booth (1991); Gurr (1970); O'Connell (2008); and Tilly (1978), and the relevant systems modeling by E. Anderson (2007) and Saeed (1994), among others. See specific discussion of the causal relationship in model documentation in online archive of M. Hamilton (2012).

128. Initial values for all three variables are normalized to one for the first year simulation. In subsequent iterations across the model timeline, the variables' relative values are multiplied together.

129. Saxton (2005, 108-109) offers an excellent summary of loop dynamics: "Coercive state measures could inadvertently activate a 'vicious cycle' with repression intensifying mobilization and grievances, grievances and mobilization leading to rebellion." O'Connell (2008, 4) frames a similar argument, set to an extreme scenario: "Governments that allow no political access and practice reactive and indiscriminate repression are at an extreme risk for violent political protest and rebellion."

Repressive actions, according to loop rationale, undermine "Government Legitimacy" and thus contribute to militant "Attractiveness" by means of "Political Grievances".

The next two loops in figure 3-7 help condition this causal scenario, providing a more comprehensive picture of "Government Repression" dynamics in the model. Both loops interact with the "Government Illegitimacy Loop: Repression Effect" (among others) and they provide *balance* to its posited exponential growth curve.

Loop #5: Expectations: Repression

The "Expectations Loop: Repression", located at the center of figure 3-7, is the first of two *balancing* loops that condition avalanche dynamics of the absolute "Repression Effects".[130] Its causal argument is simple: if "Government Repression" supersedes population expectations ("Comparisons to Past Experience"), "Political Grievances" and militant "Attractiveness" are likely to increase in the short term.[131] However, over the longer term, heightened state violence re-establishes the baseline and triggers a higher tolerance for "Government Repression" in the future.[132]

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130. The repression-focused "Expectations" loop in figure 3-7 is configured much like the opportunity-oriented "Expectations Loop" described in relation to figure 3-5. Like its predecessor, the current loop shifts focus away from absolute measures and employs a relative approach comparing young people's present reality to their past experiences. "Repression Exceeding Expectations" calculates the ratio between current "Government Repression" and "Expectations" of youth cohorts.

131. These expectation-driven dynamics, while seldom explicit in the literature, resonate with principles expressed by Atran (2004); Booth (1991); Gurr (1970); Moore (2000); Richardson (2005); Saxton (2005); and Saeed (1994), among others. Social anthropologist Wolf (2001, 396) highlights the catalyzing role of rapid political reversals in establishing actionable grievances: "…Arrangements of a society become most visible when they are challenged by crisis."

132. Richardson and Milstead's (1986) assumption holds here as well: youth are expected to accept good news about political reform more quickly than bad news, with differential delay times to adjust their repression expectations.

Loop #6: Repression Effectiveness

The third and final loop appearing at the bottom of figure 3-7, the "Repression Effectiveness Loop", explains how a regime can maintain high levels of "Government Legitimacy" even when engaged in targeted acts of "Repression". It argues that a well-financed and well-armed security force can afford to coerce (without adverse legitimacy effects) as long as militant violence is kept in check. The *balancing* loop incorporates several causal relationships already discussed, but it also adds a few new concepts and variable configurations.

The first new variable in the loop is "Security Share of Government Spending", *reinforced* yearly by bureaucratic legacies of past "Government Repression" and the pressures exerted on the state to respond to the current "Level of Conflict".[133] Next, "Government Security Spending" multiplies the "Security Share" of "Government Revenue", drawing on historical data from case-specific sources.[134]

This sets up the titular variable of this loop: "Repression Effectiveness". In the model, it is determined by the interactive influences of lagged "Government Security Spending" and "Level of Conflict".[135] The former variable, which is delayed for five

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133. This defense spending dynamic is reflected in work of P. Collier et al. (2003); Davenport (2007); Y. Levy (2007); Richardson and Samarasinghe (1991); Saeed (1994); and Skaperdas (2009), among other scholars. For the sake of model precision, historical data on "Security Share" is imported for both country cases, compiling data from the Correlates of War Project (COW), Version 4.0 (2010), *Military Balance* reports of the IISS (1970-2010), and the World Bank (2012).

134. Per capita "Government Revenue" is influenced not only by "Economic Production" but context-specific factors like income tax rates and state collection capacity, etc. Thus, case historical data is used for Sri Lanka (Peebles 1982; Richardson 2005, unpublished datasets) and for Nicaragua (Grossman 2005; Tartter 1993; and the United Nations Office on Drugs and Crime - UNODC 2007; 2008), supplemented by cross-national data from SIPRI (the Stockholm International Peace Research Institute) and Correlates of War compiled in the comprehensive databank of the World Bank (2012).

135. The relative deployment ratio of security forces to armed challengers also influences "Repression Effectiveness" in the model.

years to account for capital investment, personnel recruiting, and training, is used as a proxy for state repressive capacity. Over the long term, financial resources dictate the number of soldiers that can be employed, available funds for their compensation, and relative sophistication of the weapons and training received. "Level of Conflict" is hypothesized to *balance* the yearly capacity impacts of the time-lagged "Government Security Spending". Increased conflict intensity stretches the will and effectiveness of security forces, with prominent effects at upper bounds of violence (Gamburd 2004).

Continuing to the final variable in the loop, "Repression Effectiveness" exerts a *balancing* influence on the previously discussed "Repression Effect on Government Legitimacy". The other two loops in figure 3-7 both stress the *quantity* (absolute or relative) of "Government Repression"; however, this loop instead targets its relative *quality.* Increases in repression's *quantity* serve to foment political grievances while growth in its *quality* (or targeting effectiveness) dampen the expansion of grievances.

According to military analyst O'Connell (2008, 4), "Preemptive and precise repression by the state will likely succeed in reducing political violence, while reactive and indiscriminate repression will likely incite more political violence."[136] Richardson (2005, 118) argues a similar point, that building security force capacity (with informed government decision-making) is crucial for repression effectiveness and for limiting repression-based political grievances.[137]

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136. Overreach, of course, can be counterproductive. According to Regan and Norton (2005, 334) "When the response by the state is sufficiently threatening, potential rebels seek protection from the rebel organizations."

137. *Quality* and *quantity* measures of repression are revisited in forthcoming discussion of the *Greed and Incentives* mechanism, for which "Repression Effectiveness" is crucial in feeding the "State Fear" disincentive for armed mobilization attractiveness.

Loop #7: Government Illegitimacy:
Social Service Shortfall Effect

The right-side loop in figure 3-8 explores the *reinforcing* effect for "Political

Grievances" and militant "Attractiveness" when a government fails to provide youth-

friendly services in sectors of health and education. The "Government Illegitimacy

Loop: Social Service Shortfall Effect" shares causal relationships with a number of

previous loops (and functions in conjunction with a *balancing* "Expectations Loop",

which also appears in figure 3-8 and is treated subsequently).[138] The loop's first

original variable, the "Social Services Share of Government Spending", is calculated

relative to a state's "Security Share". As security spending increases, budgetary

sacrifices can be expected in the social services arena, especially if "Government

Revenue" remains flat.[139]

---

138. The loop traces the same path as the "Group Comparison Loop" (figure 3-6), connecting "Government Legitimacy" to "Attractiveness for Militant Mobilization". It then follows the "Youth Bulge Demographic Loop" (figure 3-2), linking "Attractiveness" to "Economic Production". Finally, it incorporates a pair of key variables from "Repression Effectiveness Loop" (figure 3-7): the "Security Share of Government Spending" and "Government Revenue Per Capita".

139. According to Saeed (1994, 175), a state regime's focus on "containing dissidence weakens its support for the development agenda". In the model, the "Services Share" is calculated yearly based on case reference data for state budget priorities in realms of education, health, and infrastructure. Globally comprehensive databanks are supported by the UN (2012); World Bank (2012); and World Health Organization (2012), which consolidate state budget estimates over time. Sri Lanka-specific reference information is drawn from the Central Bank of Sri Lanka (1983; 1996; etc.); Karunatilake (1987, 207); Peebles (1982); Richardson (2005: unpublished datasets); and UN Educational, Scientific and Cultural Organization (UNESCO) and International Institute for Educational Planning (2009). Nicaragua-specific data sources include Duff and McCamant (1976, 120); ECLAC (1987; 2001); Oxford University (2012); Mitchell (1993); and Thorp (1998).
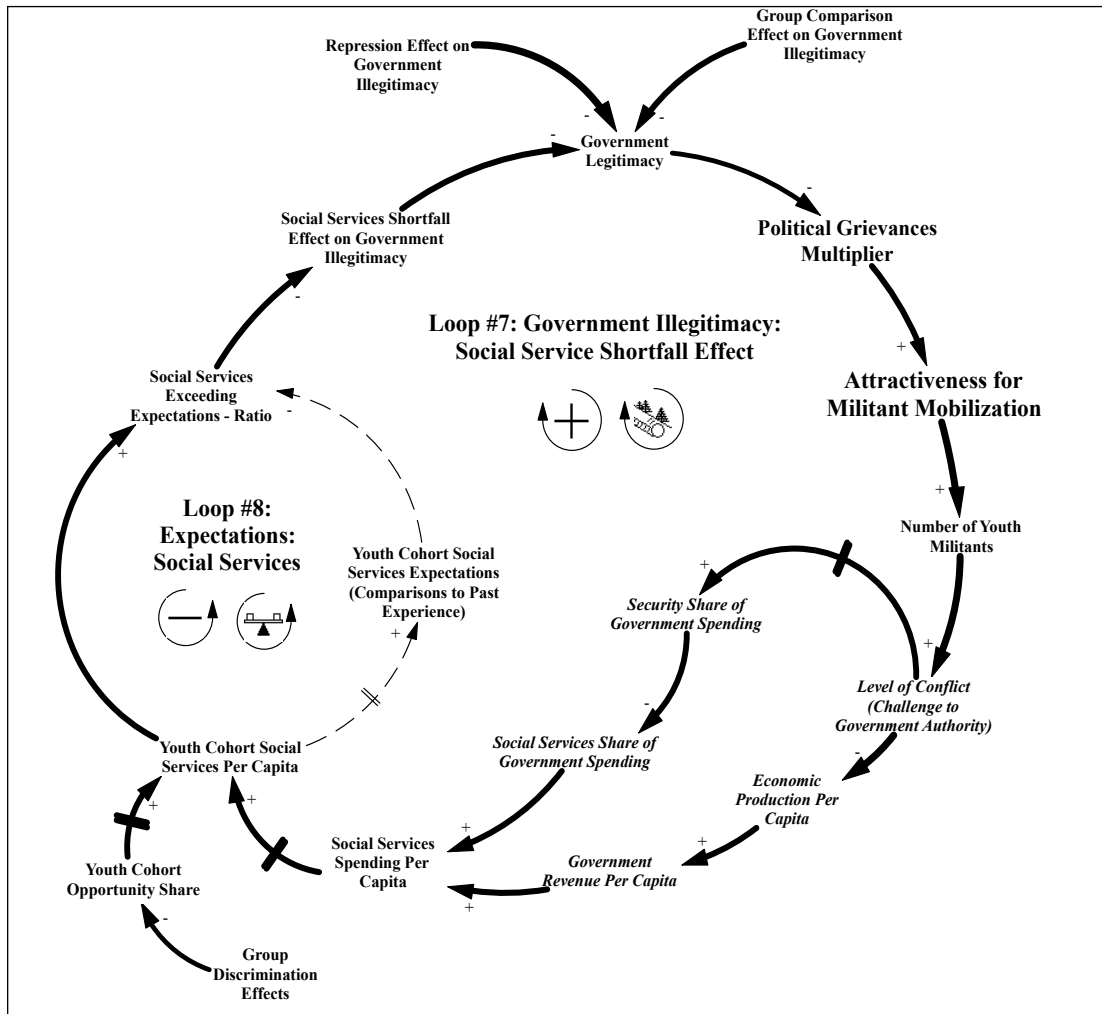
Figure 3-8. Grievances and (perceived) injustice causal loops #7 and #8: "Government illegitimacy: social service shortfall effect" and "expectations: social services".

The next major loop variable is "Youth Cohort Social Services".[140] Service

delivery depends on legacy effects and productive investment outcomes of previous

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140. Most reference sources are the same as the previous footnote on "social services share" of government revenue. For Sri Lanka, selected service indicators considered per capita include time-lagged state expenditures for education and health, number of hospital beds, number of doctors, number of government schools, and number of university graduates (University Grants Commission – Sri Lanka 2011, 63). In Nicaragua, indicators again include time-lagged state expenditures for education and health, number of hospital beds, and number of doctors. Given lower levels of education and equality, however, both secondary enrollment and tertiary enrollment are used as proxies, as are comparative measures for calories and protein consumed (Food and Agriculture Organization 2012).

"Social Services Spending".[141] It is specified by "Youth Cohort Opportunity Share",

which reflects state prioritization of a given sub-community's needs and expectations.

Remaining causal relationships track with a *balancing* "Expectations Loop"

(sharing figure 3-8). Left unmitigated, the *reinforcing* "Government Illegitimacy

Loop: Social Services Shortfall Effect" offers a narrative of exponential growth or,

more likely, of decay. In short, a state's failure to provide adequate social services to

youth cohorts contributes to diminished "Government Legitimacy", deepening their

"Political Grievances" and increasing "Attractiveness for Militant Mobilization".[142]

Loop #8: Expectations: Social Services

The final causal loop comprising the *Grievances and (Perceived) Injustice*

mechanism follows a similar pattern to previous "Expectations" loops. It again de-

emphasizes absolute values of "Youth Cohort Social Services" and instead compares

current realities relative to a cohort's past experience.[143] The "Expectations Loop" in

figure 3-8 argues that "Political Grievances" are triggered when social services fail to

---

141. Legacy effects are operationalized in the model by incorporating a ten-year delay function to simulate programming time necessary for service implementation. The delay is applied not only to the "Social Services Spending Per Capita" but also "Youth Cohort Opportunity Share", discussed for the "Government Illegitimacy Loop: Group Comparison Effect" (Figure 3-7).

142. Tracing around the loop, increasing "Conflict" undermines "Economic Productivity", "Government Revenue", and the "Social Services Share" of the budget. The resultant shortfall in "Youth Cohort Social Services" restarts the loop's avalanche of decay.

143. "Social Services Expectations: Comparisons to Past Experience" is influenced by recent trends in service availability and a delay to account for shifts in expectations. Once again, the time delay assumption of Richardson and Milstead (1986) holds true: youth are expected to accept good news more quickly than bad news, with differential delays in how they adjust their service expectations.

achieve community expectations.[144] However, effects are not *reinforcing*: this failure

contributes in the long run to a downward reorientation of service "Expectations".

The remaining causal relationships to close the *balancing* "Expectations" loop

are shared with the *reinforcing* loop for "Social Services Shortfall" (in figure 3-8).

The two loops compete year-to-year in the model to influence trends in "Government

Legitimacy", with inverse effects for "Attractiveness" and the "Number of Militants".

<div align="center">

Integrated Loop Structure for the *Grievances*
and (Perceived) Injustice Mechanism

</div>

Figure 3-9 links the eight loops comprising the *Grievances and (Perceived)*

Injustice causal mechanism. The loops weave together a story of deprivation-based

mobilization: young people disillusioned with their current opportunities are more

easily attracted to armed groups. Of course, motives may be economic or political,

absolute or relative, individual or collective.

On one hand, the mechanism produces an avalanche dynamic for the "Number

of Youth Militants", driving towards exponential growth or exponential decay. These

are the fates predicted by its four *reinforcing* loops: "Institutional Crowding", "Group

Comparison Effect", "Repression Effect", and "Service Services Shortfall Effect". On

the other hand, the mechanism produces a means to restrain, or at least slow, such

avalanche effects. "Repression Effectiveness" can *balance* many adverse impacts of

state coercion if it features a strong governance capacity. And "Expectations" can

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144. "Social Services Exceeding Expectations", calculates the ratio between the "Youth
Cohort Social Services" and trend-influenced "Expectations". If the ratio is less than one (for example,
a calculation of 0.75), it means that "Social Services" have failed to meet expected levels.

balance the absolute effects on "Economic Opportunity", "Repression", and "Social Services" if it re-establishes the status quo and resets a a new baseline of comparison.

The fate for militant "Attractiveness", as influenced by the *Grievances and (Perceived) Injustice* mechanism and causal factors of "Economic Grievances" and "Political Grievances", depends on whether loops' *reinforcing* or *balancing* elements achieve dominance over time.[145] As discussed in Chapter 2, the *reinforcing* loops in figure 3-9 (signaled with "+") push the *Grievances* mechanism towards avalanching extremes of exponential growth or decay. Meanwhile, *balancing* loops (signaled "-") seek to maintain equilibrium in the system's behavior, stymying exponential trends with year-to-year reversals (from growth to decline, or decline to growth). Over time, the dominance of particular loops influence numerical outputs for both the "Political Grievances Multiplier" and "Economic Grievances Multiplier" (calculating values less than, equal to, or more than one) and determine their relative influence over the "Attractiveness for Militant Mobilization" and the "Number of Youth Militants".[146]

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145. According to Sterman (2000, 288-289), "Positive feedback dominates whenever the rate of change of the state variable is increasing in the state variable, that is, as long as the net rate of change as a function of the state variable is positive. Negative feedback dominates whenever the net rate of change is decreasing in the state variable, that is, as long as the slope of the net rate is negative."

146. The "tipping point" (Gladwell 2000) is a crucial threshold in dynamic systems. Using the metaphor of a contagious disease, "Below the tipping point the system is stable… Negative feedback dominates and the population is resistant to an epidemic. Past the tipping point, the positive loop dominates. The system is unstable and once a disease arrives it spreads like wildfire – that is by positive feedback – limited only by the depletion of the susceptible population (Sterman 2000, 306)."
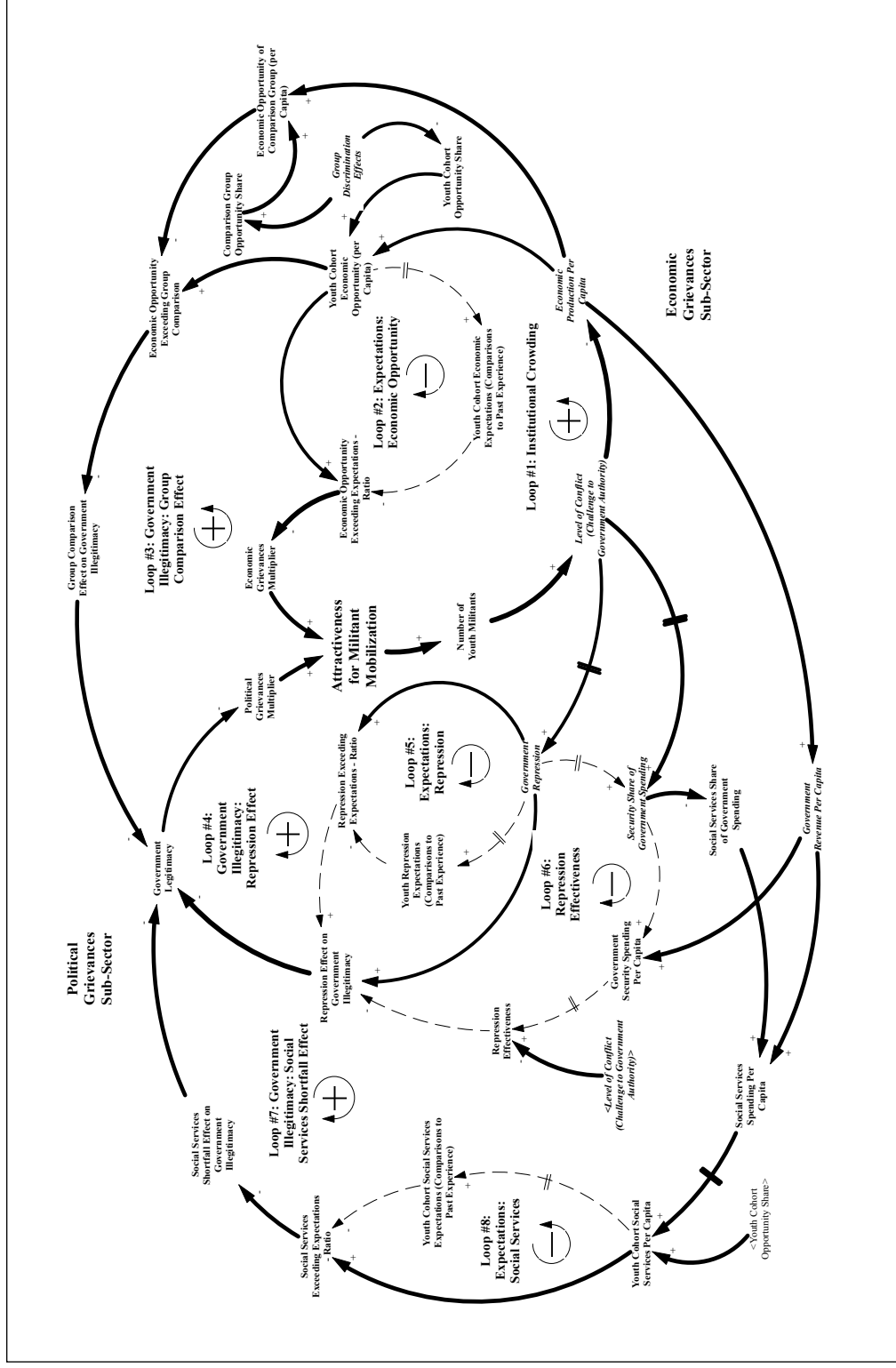
Figure 3-9. Grievances and (perceived) injustice mechanism: Integration of causal loops #1-8.

Describing the Greed and Incentives Mechanism

The third and final causal mechanism analyzed in this chapter explores the

Greed and Incentives theory cluster introduced in Chapter 1. This mechanism stresses

the role of economic and political incentives (and disincentives) in explaining violent

youth mobilization over time. Its ten causal loop descriptions engage a multifaceted

array of "carrots" and "sticks" in an interactive, systemic perspective.

Loop #1: Government Fear:
Political Disincentives

The first *Greed and Incentives* loop explores the demobilizing effect of fear

and the constraining influence of state coercion on runaway militant "Attractiveness".

The *balancing* "Government Fear Loop" (figure 3-10) shares a number of key causal

relationships with repression-related *Grievances and (Perceived) Injustice* loops.[147]

Discussion here, though, deemphasizes the legitimacy concerns of *Grievance* loops,

and explains instead how repression creates disincentives for armed mobilization.[148]

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147. Most causal rationales connecting "Attractiveness" to "Repression Effect on Government Illegitimacy" in figure 3-10 mirror the descriptions of "Repression Effect" and "Expectations" loops in figure 3-7. The final shared variables is used in the "Government Fear Loop" not for its stated "Effect on Government Legitimacy" but as a *reinforcing* input for "Repression Effect on Government Fear".

148. Regan and Norton (2005, 330) find that "lagged levels of political repression are a very strong predictor of the current level of civil unrest… The more repression meted out by the state in year $t-1$ leads to less antigovernment protest in the current year."

Grievances & Perceived Injustices Sector: Repression Effectiveness

Groups & Identity Sector: Militant Consolidation Effect

+ -

Repression Effect on Government Fear

+

+

Government Fear Multiplier (Political Disincentives)

Repression Effect on Government Illegitimacy

+

Loop #1: Government Fear: Political Disincentives of Repression

-

Attractiveness for Militant Mobilization

Government Repression

+

+

Level of Conflict (Challenge to Government Authority)

Number of Youth Militants

+

+

Figure 3-10. Greed and incentives causal loop #1: "Government fear: political disincentives of repression".

The "Repression Effect on Government Fear" variable atop the loop in figure 3-10 is *reinforced* by intensity (quantity) and effectiveness (quality) of "Government Repression" and is *balanced* by the consolidated authority of militant challengers. According to the literature, the *reinforcing* influence of repression intensity (quantity) on "Government Fear" is most notable at the upper bounds of coercion and when its relative levels supersede a cohort's expectations (O'Connell 2008; Regan and Norton 2005; Saeed 1994; etc.). Meanwhile, repression effectiveness (quality) reinforces the impact of government coercion based on the level of state capacity (O'Connell 2008; Richardson 2005; etc.). Finally, "Militant Consolidation" is expected to undermine

"Government Fear" over time due to the superior protection a well-established armed group can provide to its prospective members (Smyth 2003; Tilly 1985; Thomas and Casebeer 2004; etc.). To conclude the causal loop in figure 3-10, "Government Fear" extends the "Repression Effect" to *balance* the other five factors (all *reinforcing*) to exert direct influence on year-to-year militant "Attractiveness".[149]

As a whole, the "Government Fear Loop" (figure 3-10) argues that enhancing the effectiveness and intensity of "Government Repression" discourages recruitment and participation of young people in non-state armed groups. As "Government Fear" increases, the "Attractiveness for Militant Mobilization" diminishes. In the scope of the broader model, "Government Repression" tends to reinforce *Grievances and Perceived Injustices* (and militant "Attractiveness") over the long term; however "Government Fear" often dominates in the short term, creating disincentives for armed youth mobilization and constraining militant recruitment activity.

<div align="center">

Loop #2: Repression Effects for
Militant Effectiveness

</div>

The next several *Greed and Incentives* loops (in figures 3-11, 3-12, and 3-13) operate in the model's background, explaining militant operational efficiency without contributing directly to "Attractiveness". The first of two causal loops in Figure 3-11 highlights the *balancing* "Repression Effects for Militant Effectiveness": the capital investments of armed groups are not likely to expand indefinitely because the state will keep perceived threats in check, slowing destruction only as threats diminish.

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149. Like other direct inputs to "Attractiveness", the "Government Fear Multiplier" value is normalized to one for the initial year of simulation. Thereafter, it depends on "Repression Effects".
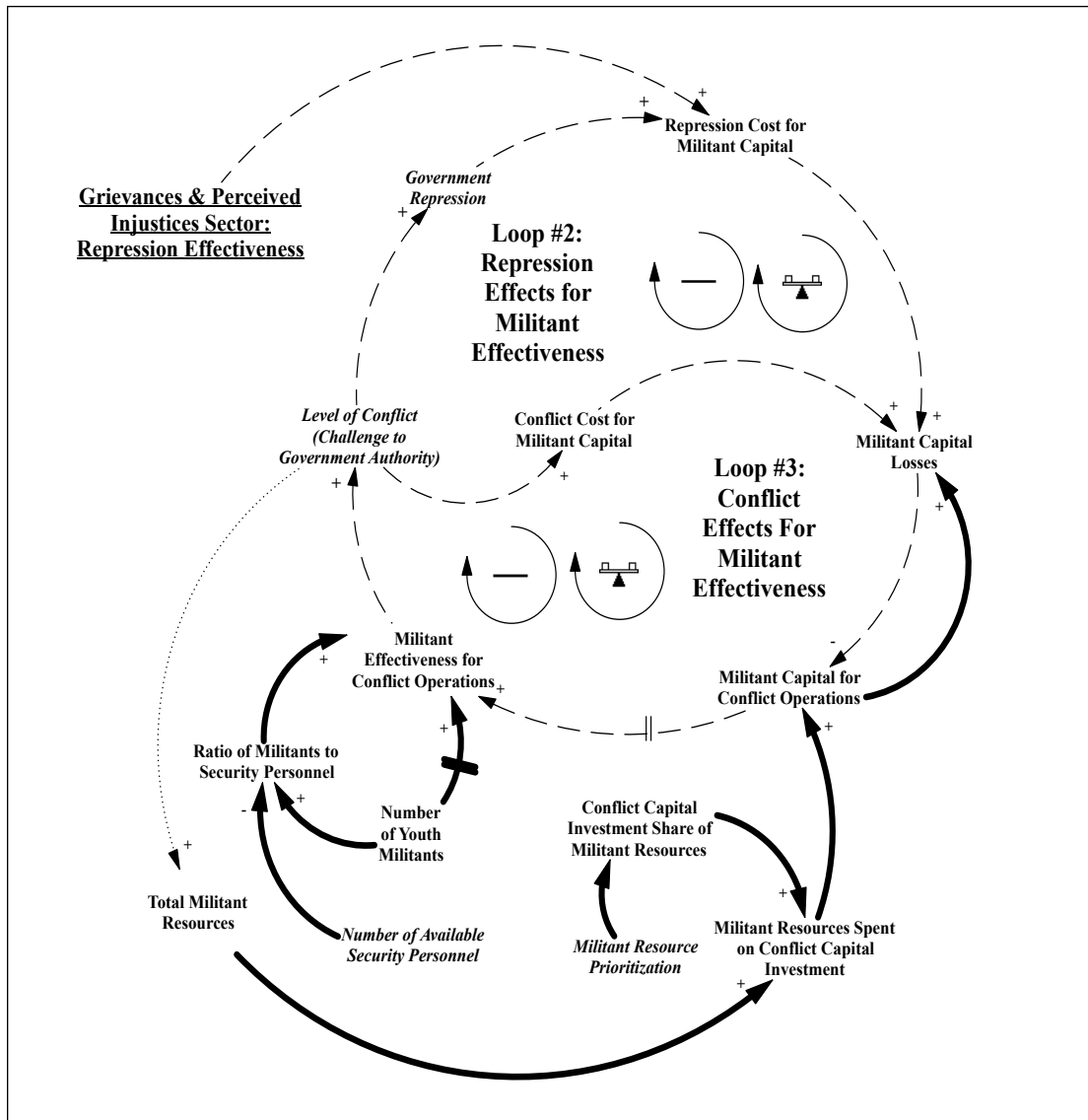
Figure 3-11. Greed and incentives causal loops #2 and #3: "Repression effects for militant effectiveness" and "conflict effects for militant effectiveness".

The "Repression Effects" loop (at the top of figure 3-11) incorporates several familiar variables, including the "Level of Conflict", "Government Repression", and "Repression Effectiveness". Its first original variable, "Repression Cost for Militant Capital", again depends on the intensity and effectiveness of state coercion. Effects

are multiplied by "Conflict Cost for Militant Capital" (discussed for the next loop) to

determine "Capital Losses" to overall "Militant Capital for Conflict Operations".[150]

The next loop variable, "Militant Effectiveness for Conflict Operations"

adapts the traditional functions of economic production to estimate militant groups'

capacity of to "produce" conflict.[151] The variable reframes relevant inputs of *Labor*

("Number of Militants"), *Capital* ("Militant Capital Operations"), and *Total Factor

Productivity* ("Ratio of Militants to Security Personnel"), and allows time delays for

militant capacity building.[152] Increases to "Militant Effectiveness" are expected to

reinforce "Level of Conflict" (in association with other inputs), restarting the loop's

balancing effect for the broader system.[153]

Taken as a whole, the "Repression Effects for Militant Effectiveness Loop"

(figure 3-11), like the "Government Fear Loop" (figure 3-10), examines mitigating

influences of "Government Repression" on militant "Attractiveness". But whereas the

fear-driven loop considers the direct impacts of constrained recruitment (via the

---

150. "Militant Conflict Capital for Operations" is calculated according to "bathtub dynamics" common in system dynamics economic modeling (Forrester 1969; Mass 1975; Saeed 1994; etc.). Capital value is augmented by *reinforcing* yearly inflows from "Militant Resources Spent on Conflict Capital Investment" and diminished by *balancing* outflows from capital depreciation (not shown in the loop diagram), and, more importantly, from the yearly "Militant Conflict Capital Losses". The causal variables that influence "Militant Resources Spent on Conflict Capital Investment", specifically the "Capital Investment Share" and "Militant Resource Prioritization", will be discussed in the next loop.

151. The model adapts a Cobb-Douglas (1928) production function, drawing on the system dynamics economic modeling of Mass (1975) and Wheat (2007), among others.

152. The "Number of Available Security Personnel", which includes military, police, and state-affiliated paramilitary forces, is driven by historical reference data from the Correlates of War Project, Version 4.0 (2010), *Military Balance* (IISS 1970-2010) and World Bank (2012), supplemented by case-specific inputs for Sri Lanka (Blodgett 2004; Gamburd 2004; R. Levy 1988; and Peebles 1982; etc.) and Nicaragua (Booth 1991; Booth et al. 2006; Grossman 2005; Tartter 1993; and UNODC 2007 and 2008; etc.). Figures have been adapted to account for simultaneous insurgencies (in Sri Lanka), estimating the relative share of security forces allocated to dissuade a given group's armed challenge.

153. As discussed previously, the latter variable ("Level of Conflict") utilizes historical data in model simulations; thus, the relative causal impacts of this relationship are not specified here.

balancing "Government Fear" factor)*,* the current loop can only indirectly influence

militant "Attractiveness" (via the "Militant Legitimacy Multiplier" and "War Booty

Multiplier") through its treatment of militant capacity.

<div align="center">
Loop #3: Conflict Effects for
Militant Effectiveness
</div>

The next background loop shares a *balancing* dynamic with the previous

"Repression Effects for Militant Effectiveness Loop" (figure 3-11). For the "Conflict

Effects", though, there is an alternate logic: militant groups' capital investments fail

to expand indefinitely because their armaments and personnel are "spent" in conflict

operations (not due to state repression effects per se).

Tracing clockwise around the "Conflict Effects" loop, yearly increases in the

"Level of Conflict" *reinforce* "Conflict Cost for Militant Capital". This relationship

operationalizes the presumed necessity for a militant group to "reload" after spending

operational capital on its acts of conflict provocation.[154] Due to the interactive effects

of the two loops (in figure 3-11), only a few relationships need further explanation.[155]

Two variables that appear on the lower right fringe of figure 3-11 explain the

allocation of available "Militant Resources", according to *Greed and Incentives* logic.

"Conflict Capital Investment Share", which is influenced by "Militant Resource

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154. See modeling applications in the conflict-related work of Richardson and Milstead (1986); Saeed (1994); and Thomas and Casebeer (2004); etc.

155. Remaining loop relationships follow the same rationale as previous "Repression Effect" explanations: growth in the "Conflict Cost" contributes to "Conflict Capital Losses", which diminish "Militant Capital for Conflict Operations". Falling "Conflict Capital" eventually undermines "Militant Effectiveness" and the corresponding capacity for initiating "Conflict", restarting the next iteration of loop dynamics with negative rather than positive trending for early *reinforcing* variables.

Prioritization", features opportunity queuing similar to that described previously for
Grievance and (Perceived) Injustice loops.[156]

Instead of allocations based on cohort competition, though, percentage shares
of "Total Militant Resources" are distributed into five distinct categories: "Conflict
Capital Investment Share of Militant Resources" (treated for figure 3-11), "External
Marketing Share of Militant Resources" (figure 3-12), "Internal Marketing Share of
Militant Resources" (figure 3-13), "Militant Payroll Share of Militant Resources"
(figure 3-14), and "Savings Share of Militant Resources" (not diagrammed here).[157]

Relative percentage share allocated per category is determined by the militant
leadership "Resource Prioritization" and influenced year-to-year by the bureaucratic
tendency to maintain previous years' funding for high priority categories, even when
faced with financial challenges. The interactive effects across the five categories
operate according to militant-defined priorities and resource needs. Across contexts
the "Capital Investment Share of Militant Resources" usually adds a resource inflow
to compensate for "Militant Capital Losses". And a "Militant Savings" surplus tends
to be spread across categories. However, other shifts are more context-specific. For
example, in postwar Nicaragua, shifts in the structure, leadership, and organizing
motive of armed groups (now fragmented street gangs instead of ideology-infused
guerrillas) have led to a reset of resource allocation priorities, with more attention to
"Militant Payroll". Depending on the priorities of given militant leadership, minor

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156. "Capital Investment Share" queues like the *Grievance*-based "Institutional Crowding Loop" (figure 3-5) and "Government Illegitimacy Loop: Group Comparison Effect" (figure 3-6).

157. See Figure 3-15 for a glimpse of the first four "Militant Resources" categories organized together in one diagram.

additions to model structure may be appropriate. Initial resource prioritization across

categories is specific to the case context and the particular militant group, and model

estimates reflect multi-source and primarily qualitative insights in the absence of

reliable quantitative data.[158]

<p style="text-align:center;">Loop #4: Politically-Motivated Emigration</p>

The first of the three *Greed and Incentives* loops in figure 3-12 considers the

reinforcing dynamics of "Politically-Motivated Emigration" (appearing at the far left

of the diagram). It operates in the background of the project's model, analyzing the

reasons behind cross-border people flows and the implications for militant funding by

diaspora communities. The role of diaspora funding for armed groups is highlighted

in Chapter 4 for Sri Lanka's Tamil mobilization, but the phenomenon is documented

for a wide array of global cases.[159]

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158. For the Sri Lanka case, reference sources related to militant resource allocation include Aryasinha (2001); Battle (2010); Blood (1988); Byman et al. (2001); Gunaratna (1998; 2000; 2001); Iyer (2007); Korf (2006); R. Levy (1988); Lilja (2009); McGowan (1992); Obeyesekere (1974); Ponnambalam (1983); Richardson (2005); Swamy (1994); and Wayland (2005), among others. Sources for Nicaragua include Booth (1991); T. Brown (2001); Butler et al. (2005); Cameron (2007); A. Cruz Jr. (1989); Horton (1998); Ortega (1978); Ramírez (1999); Rocha (2005; 2006b); Rodgers (2003; 2004; 2006); Tarttar (1993); Tijerino (1978); Wright (1991); and Zimmerman (2000); etc.

159. Examples include Cuban exiles (Haney and Vanderbush 1999), Kurds (Adamson 2005), Sikhs (Fair 1999; Staniland 2012; Tatla 1999), Zionist Jews in pre-war Europe (Gold 2002; Goldstein 1995), Palestinians (*Sayegh 1997*), Southern Sudanese (Clapham 1999), Irish from Northern Ireland (Holland 2003), and Aceh (Aspinall 2009), etc. Also see general diaspora discussion (Byman et al. 2001; R. Cohen 2008; Ember et al. [eds.] 2005; Leites and Wolf 1970; and Salehyan 2009, 34-36).
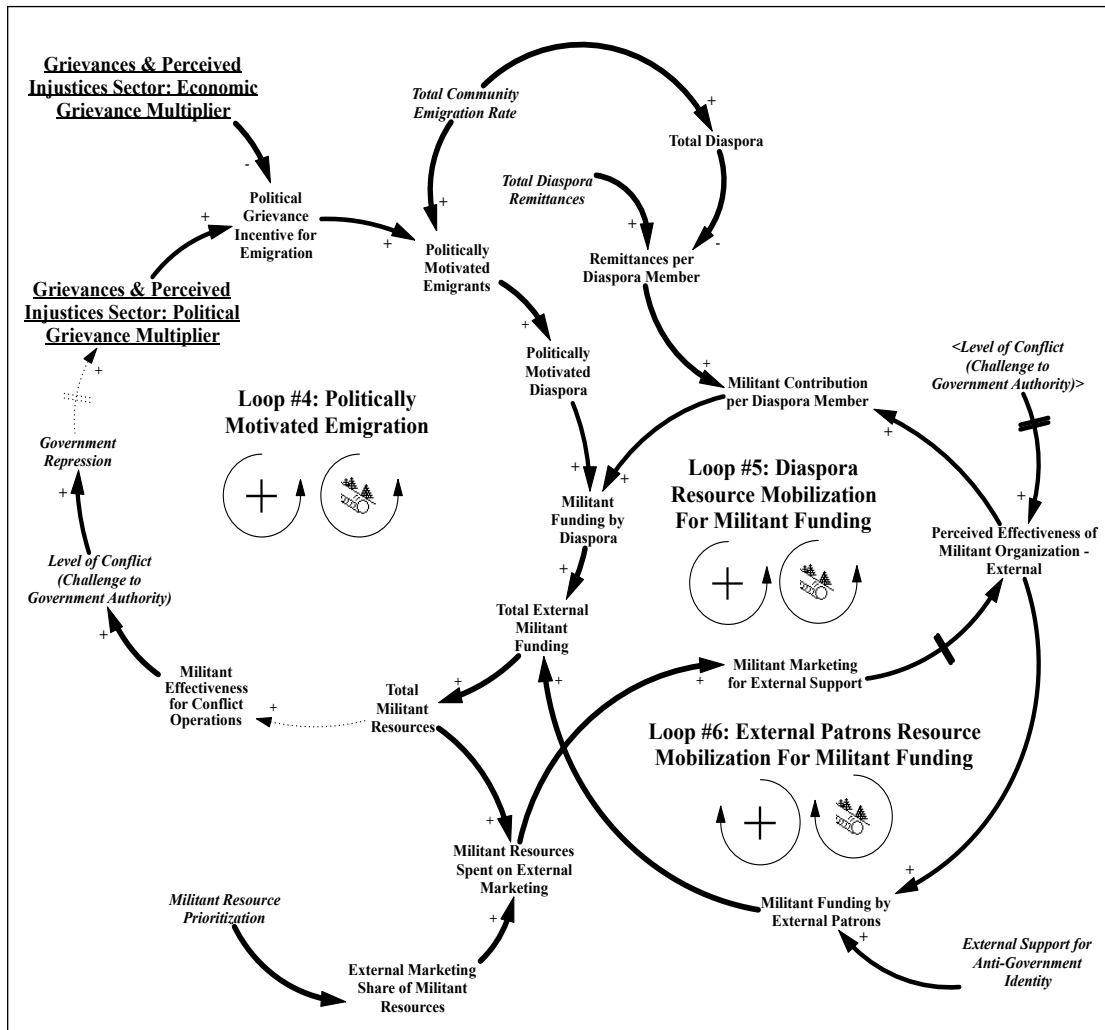
Figure 3-12. Greed and incentives causal loops #4-6: "Politically motivated emigration", "diaspora resource mobilization for militant funding", and "external patron resource mobilization for militant funding".

Only the loop's unique causal relationships are treated here, leaving the

discussion of shared variables for subsequent loop descriptions.[160] The "Political

Grievance Incentive for Emigration" weighs likely political dissatisfaction against

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160. Tracing through the "Politically Motivated Emigration Loop" (figure 3-12), the *reinforcing* path connecting "Total Militant Resources" to "Government Repression" is shared with "Repression Effects for Militant Effectiveness" (figure 3-11). The *reinforcing* "Political Grievance Multiplier" and *balancing* "Economic Grievance Multiplier" are underlined and imported from the *Grievances and (Perceived) Injustice* sector. They serve as inputs for the loop's first original variable, discussed next.

economic considerations in the decision of youth emigrants to leave home.[161] The

next loop variable, "Politically Motivated Emigrants", is determined by multiplying

"Grievance Incentive" and "Total Community Emigration Rate".[162] The "Politically

Motivated Diaspora" follows, a bathtub variable with yearly inflows of "Politically

Motivated Emigrants" and outflows of those who disengage politically due either to

natural life transitions or to cultural assimilation after a number of years abroad.[163]

Remaining loop variables, all *reinforcing*, are discussed for the subsequent

interacting loops. Considered in isolation, the "Politically Motivated Emigration

Loop" contributes a *reinforcing* or avalanche effect to the overall system: repression-

induced grievances are expected to increase politically motivated emigration. This

should lead to greater funding for militant organizations, increased levels of conflict,

and enhanced state repression.

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161. See discussion of migration's causal dynamics in Brubaker (1996); Castles and Miller (1993); M. Hamilton (2011); Massey et al. (1993); Papastergiadis (2000); Portes (1995); Sassen (1988; 1996); and Stalker (2000), etc. The "Political Grievance Incentive for Emigration" variable considers the ratio of "Political Grievance" to "Economic Grievance" (across relevant population sectors), and then multiplies the result by a factor of 0.5 to calculate the relative percentage of yearly emigration that is explained by political factors.

162. Data on "Emigration Rate", exogenous to model configuration, is sourced from the World Bank (2012), and case-specific sources for Sri Lanka (Peebles 1982; Richardson 2005, unpublished datasets; Wayland 2005; etc.) and Nicaragua (Ember et al. [eds.] 2005; N. Hamilton and Stoltz-Chinchilla 1997; Orozco 2008; etc.). The variable is measured in net "people per year" who change their national residence to move to a foreign country.

163. Minoian and Freinkman (2006) suggest a general timeframe of 15 years. Fuglerud (1999) estimates less than ten percent of the Tamil diaspora remains engaged in organized political activism in Sri Lanka, though a much larger percentage follow political developments and support family pursuits. See discussion of transnational political engagement in Ember et al. [eds.] 2005; Levitt (2001); Martínez-Saldana (2003); Orozco (2004; 2005; 2008); Ostergaard-Nielson (2003); Pantoja (2005); R. Smith (1997); etc. See model operationalization and documentation in the online data archive for this project (M. Hamilton 2012).

Loop #5: Diaspora Resource Mobilization
for Militant Funding

The fifth *Greed and Incentives* loop emphasizes the effects of emigration and external marketing on armed mobilization. Labeled "Diaspora Resource Mobilization for Militant Funding", the loop in figure 3-12 highlights the *reinforcing* dynamics of Diaspora fundraising on future militant marketing and operational financing.

Building on the causal description of the previous loop ("Politically Motivated Emigration"), "Funding by the Diaspora" is combined with "Funding by External Patrons" to achieve "Total External Militant Funding".[164] This value then is added to "Total Internal Militant Funding" (described in figure 3-13) to calculate the "Total Militant Resources" available, including a percent share set aside for marketing.[165]

The amount of "Militant Resources Spent on External Marketing" determines a group's relative ability to frame public discourse and facilitate identity linkages in targeted communities. On the demand side, external fundraising depends greatly on the "Perceived Effectiveness of a Militant Organization". This marketing-infused variable highlights the need for armed group success – that is, external perception of its success – to secure voluntary donations from the Diaspora and other external patrons (Byman et al. 2001; Chai 1993; etc.).[166]

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164. "Militant Funding by the Diaspora" multiplies the yearly values of "Politically Motivated Diaspora" and "Militant Contribution Per Diaspora Member". Description of "Militant Funding by External Patrons" follows in the next loop description ("External Patron Resource Mobilization").

165. The relative "External Marketing Share" of "Total Militant Resources" is calculated according to the "Militant Prioritization" queue discussed for the "Conflict Effects" in figure 3-11.

166. "Perceived Effectiveness" depends on the "Level of Conflict" initiated by militant groups (discussed for figure 3-2); however, these effects are *reinforced* by "Militant Marketing for External Support" and "Militant Consolidation Effects" (not diagrammed). Byman et al. (2001: 51) cite "surges" in voluntary funding after victories and falling (often coerced) donations after defeats.

This dynamic is exemplified by the causal relationships that close the current loop: "Militant Contributions per Diaspora Member" are expected to grow in line with the "Perceived Effectiveness of Militant Organization".[167] And rising per capita contributions *reinforce* "Militant Funding by the Diaspora", restarting the avalanche cycle of the "Diaspora Resource Mobilization Loop".

<div align="center">

Loop #6: External Patron Resource
Mobilization for Militant Funding

</div>

The final causal loop in figure 3-12 explores how armed group raise funds outside their community. The "External Patron Resource Mobilization Loop" shares long causal paths and significant causal logic with the recent "Diaspora" loop.[168]

"Militant Funding by External Patrons" is driven by a *reinforcing* supply and demand dynamic: militant supply of militant "Perceived Effectiveness" and external demand for militancy, via the "External Support for Anti-Government Identity".[169] Increases supplement "Total External Militant Funding", and, in combination with the Diaspora-related loops of figure 3-12, catalyze *reinforcing* avalanche effects that (indirectly) influence the "Attractiveness for Militant Mobilization".

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167. Per capita "Militant Contributions" of politically active Diaspora are expected to match normal levels of "Remittances" (adapting Fuglerud 1999; Orozco 2008; etc.). This value can then be multiplied by "Perceived Effectiveness", reflecting both marketing and consolidation effects.

168. The two loops share the entire causal path linking "Total External Militant Funding" to "Perceived Effectiveness of Militant Organization – External".

169. The exogenous "External Support" variable is normalized to an initial monetary valuation, its implicit index sensitive to shifts in the financial assistance offered to armed challengers by external, non-Diaspora actors. Long-run values of "Anti-Government Support" are estimated from case-specific historical data on Sri Lanka (Aryasinha 2001 and 2008; Gunaratna 1999 and 2000; Iyer 2007; Richardson 2005; Samaranayake 2008; Swamy 1994 and 2004; and Wayland 2005; etc.) and Nicaragua (Booth 1991; Booth et al. 2006; Brody 1985; Cameron 2007; L. Hamilton and Inouye 1987; Horton 1998; Kinzer 1991; Molloy 2001; Perla Jr. 2009; Rocha 2010; and Rodgers 2005; etc.).

Loop #7: Voluntary Resource Mobilization
for Militant Funding – Internal

The next two *Greed and Incentives* loops (shown in figure 3-13) continue to address militant fundraising; however, they shift attention away from the Diaspora and external patrons to highlight a group's internal means of financial support, both voluntary and coerced.[170] The first loop treats "Voluntary Resource Mobilization".

Three variables seemingly original to the loop feature equations and causal rationales similar to external variables driving "Diaspora Resource Mobilization" (figure 3-12). Internal variables include: "Militant Resources Spent on Internal Marketing", "Militant Marketing for Internal Support", and "Perceived Effectiveness of Militant Organization – Internal". [171]

The next variable in the "Voluntary Resource Mobilization Loop" crosses sectors of the model, with effects for the *Groups and Identity* mechanism and the "Militant Legitimacy Multiplier". As previously described, "Militant Legitimacy" relies on three causal inputs: the *reinforcing* "Perceived Effectiveness of Militant Organization – Internal" (explained in the preceding paragraph), *balancing* "Militant

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170 Beginning with "Total Militant Resources", which sums the "Total Internal Funding" (figure 3-13) and "Total External Funding" (figure 3-12) of a given armed group, the "Voluntary Loop" is well integrated with other "Resource Mobilization" loops.

171. For example, "Militant Resources Spent on Internal Marketing" follows the same pattern that was outlined for external marketing, allocating relative percentage share according to the "Militant Prioritization" queue. "Militant Marketing for Internal Support", like the associated index for external support, reflects cumulative effects of resources spent on marketing. And the "Perceived Effectiveness of Militant Organization – Internal", like its corresponding external variable, needs at least a measure of success to market and operationalizes future militant success, this time viewed through the eyes of everyday community members (Battle 2010; Byman et al. 2001; Lilja 2009; etc.). Information delays for the latter two variables are shorter than those estimated for external resource mobilization due to community members' relative proximity to the conflict and militant group representatives.

Coercion – Internal" (treated in the next loop), and *reinforcing* "Cultural Openness to

Militant Identity" (already diagrammed and explained for figure 3-3).
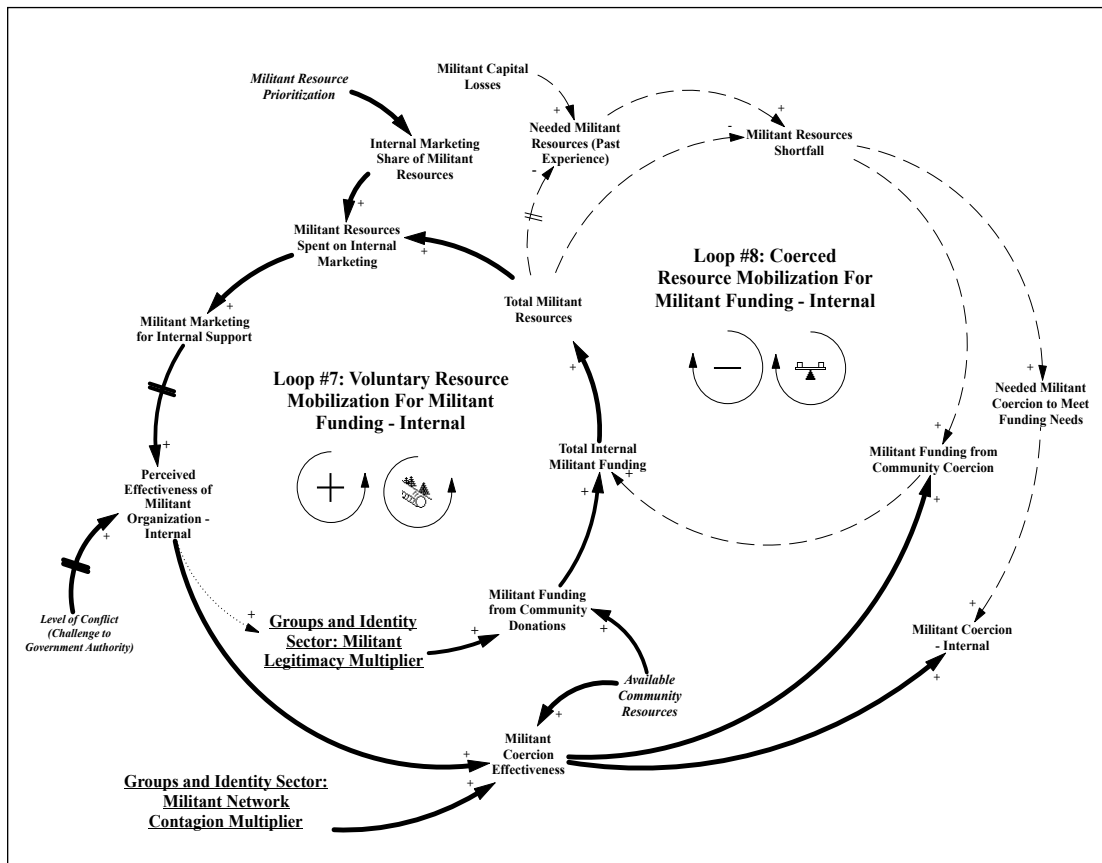
Figure 3-13. Greed and incentives causal loops #7 and #8: "Voluntary resource
mobilization for militant funding – internal", and "coerced resource mobilization for
militant funding- internal".

Continuing along the loop's causal path, "Militant Funding from Community

Donations" computes the militant-dedicated and non-coerced portion of "Available

Community Resources".[172] The variable that finally closes the "Voluntary Resource

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172. Resources are calculated across population cohorts, according a reference "Militant
Funding" percentage as a baseline for both Nicaragua (Booth 1991; Butler et al. 2005; Zimmermann
2000; etc.) and Sri Lanka (Iyer 2007; Lilja 2009; etc.). This initial percentage is then multiplied by the
"Militant Legitimacy Multiplier" to reflect armed group success, non-coercion, and identity resonance
for continuing inflows of voluntary community donations (Battle 2010; Lilja 2009; Korf 2006; etc.).

Mobilization Loop" (figure 3-13) is the "Total Internal Militant Funding", which includes "Militant Funding from Community Donations" as well as "Militant Funding from Community Coercion" (discussed in the next loop description).

The "Voluntary Resource Mobilization Loop" (figure 3-13), considered in isolation, predicts an avalanche effect of *reinforcing* causal relationships: increased funding leads to increased marketing investment, which strengthens an organization's perceived effectiveness and its relative legitimacy, with positive effects for future community donations.[173] The same avalanche effect, though, could also contribute a spiral of decay across loop variables, assuming negative rather than positive initial trends. In that case, the next loop description ("Coerced Resource Mobilization") takes on particular significance by filling gaps in voluntary forms of militant funding.

Loop #8: Coerced Resource Mobilization
for Militant Funding – Internal

The second loop in figure 3-13 offers a *balancing* narrative to the avalanche-seeking trends of "Voluntary Resource Mobilization" and the externally focused fundraising loops in figure 3-12. The internal "Coerced Resource Mobilization Loop" seeks equilibrium for militant funding in the case of budget shortfalls.

The "Coerced Resource" loop shares a number of causal relationships with the "Voluntary" loop, including *reinforcing* "Total Militant Internal Funding" and "Total Militant Resources". Next in the loop's causal path is the variable "Needed Militant Resources (Past Experience)", which configures militant group expectations in much

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173. Examples of loop dynamics relevant to this project include the Tamil Tigers (explored in Chapter 4) and the early years of the Nicaraguan *Contras/* Resistance (examined in Chapter 5).

the same way as previous *Grievances and (Perceived) Injustices* loops.[174] "Militant

Resource Shortfall" subtracts the "Total Militant Resources" available from "Needed

Militant Resources". The result, if positive, determines potential "Militant Funding

from Community Coercion", which closes the loop. Actual funding levels, though,

are determined by the quality of "Militant Coercion Effectiveness", expressed as a

percentage of maximum potential funding.[175] For coercion to be effective, there must

be a credible threat, a sufficient resource base to loot, and sufficient network ties to

guarantee community enforcement and efficiency in financial collection.[176]

     A final variable relevant to the "Coerced Resource Mobilization Loop", if not

directly integral to its causal path, is "Militant Coercion- Internal". It is influenced by

two causal inputs in figure 3-13: "Needed Militant Coercion to Meet Funding Needs"

and the aforementioned "Militant Coercion Effectiveness".[177] In order to credibly

coerce, a group must possess sufficient capacity. "Militant Coercion", like its state

counterpart ("Repression"), contributes both positively and negatively to militant

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     174. Earlier expectation loops measured a youth cohort's current realities against its past experiences of consumption (figure 3-5), repression (figure 3-7), and social services (figure 3-8). "Needed Militant Resources" in the current loop (figure 3-13) incorporates past trending for "Total Militant Resources" (adapting Richardson and Milstead 1986) before adding "Militant Capital Losses" (figure 3-11) and other associated model inputs to achieve a final value.

     175. "Militant Funding from Community Coercion" contributes to the "Total Internal Militant Funding", which restarts the "Coerced Loop" for another iteration. Over time, it provides *balance* for the other avalanche-oriented "Resource Mobilization" loops.

     176. Increasing "Militant Coercion Effectiveness" results in a higher share of "Needed Militant Resources" that may be secured for "Militant Funding" (Battle 2010; J. Becker 2006; Korf 2006; and Tilly 1985, among others). The yearly value for "Coercion Effectiveness" is calculated in the model based on the normalized inputs from three causal variables already described in this chapter: "Perceived Effectiveness of Militant Organization – Internal" (figure 3-13), "Available Community Resources" (figure 3-13), and "Militant Network Contagion Multiplier" (figure 3-1).

     177. "Needed Militant Coercion to Meet Funding Needs" is determined by a *reinforcing* table function configured for "Militant Budget Shortfall", documented in M. Hamilton (2012) data archive.

"Attractiveness". "Coercion" offers militant access to needed funds, especially when voluntary resource mobilization falls short; however, its overuse undermines militant organizational legitimacy and identity resonance within targeted communities.[178]

Loop #9: Militant War Booty: Economic Incentives

The final two *Greed and Incentives* loops (in figure 3-14) explain how economic opportunity structures directly influence "Attractiveness for Militant Mobilization". The "Militant War Booty Loop" leverages financial inflows from external and internal "Resource Mobilization" loops and specifies impacts of making resources available to young participants.

"Militant War Booty" shares several causal relationships with previous loop descriptions.[179] The loop's first new variable, "Militant Resources Spent on Militant Payroll", depends on the "Payroll Share" priorities for "Total Militant Resources".[180] Augmenting the resource allocation to youth participants will increase the per capita "Militant Payroll", as long as inflows can keep up with the "Number of Militants". In figure 3-14, *reinforcing* dynamics of "Militant War Booty" compete with *balancing*

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178. The value reached for "Militant Coercion – Internal" is utilized elsewhere in the model, *balancing* the "Militant Legitimacy Multiplier" (figure 3-3) in the *Groups and Identity* sector.

179. Increases to militant "Attractiveness" catalyze gains in the overall "Number of Youth Militants" (Figures 3-1 and 3-2). Growth in youth participation contributes to greater likelihood and intensity for the "Level of Conflict" (Figures 3-2 and 3-11), and, based on "Perceived Effectiveness", this eventually secures a larger pool of "Total Militant Resources" (Figures 3-12 and 3-13).

180. Payroll share is determined by the resource allocation queue discussed in figure 3-11.

dynamics of the "Militant Payroll Crowding Loop" (discussed next) for influence

over the per capita "Militant Payroll" and overall militant "Attractiveness".[181]
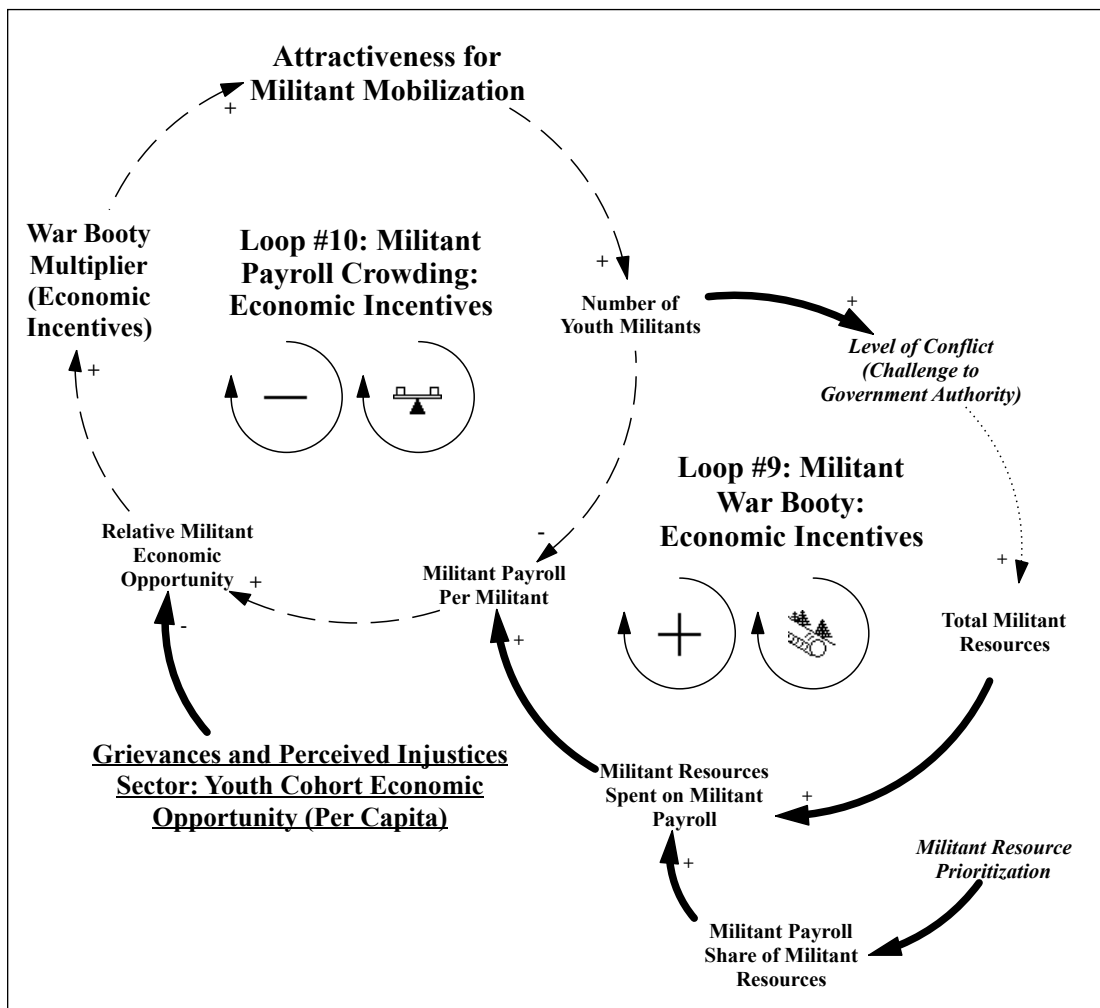
Figure 3-14. Greed and incentives causal loops #9 and #10: "Militant war booty" and "militant payroll crowding".

---

181. Patterns of growth or decline in "Militant Payroll per Militant" are crucial in determining the values for subsequent shared loop variables: "Relative Militant Economic Opportunity", the "War Booty Multiplier", and militant "Attractiveness".

Loop #10: Militant Payroll Crowding:
Economic Incentives

The *balancing* "Militant Payroll Crowding Loop" (figure 3-14) shares with its

companion *reinforcing* loop the same causal pathway from militant "Attractiveness"

to the "Number of Youth Militants". This loop, however, emphasizes how increasing

armed participation contributes to lower per capita payouts in the per capita "Militant

Payroll" variable.

The next loop variable, "Relative Militant Economic Opportunity", calculates

the per member ratio of "Militant Payroll" to "Youth Cohort Economic Opportunity",

imported from the *Grievances and (Perceived) Injustices* sector (figure 3-5). This

causal relationship draws on an economics-based argument common in the civil wars

literature: individual actors are expected to maximize utility, so given similar risks,

youth will seek employment in the sector that offers greatest economic returns.[182]

The "War Booty Multiplier (Economic Incentives)" is influenced by year-to-

year shifts in "Relative Militant Economic Opportunity", with comparison to longer-

term trends. "War Booty" then closes both the causal loops in figure 3-14 by exerting

a *reinforcing* effect on "Attractiveness for Militant Mobilization", in conjunction with

five other causal factors (specified in figure 2-7).

Considered in combination, the "Militant War Booty" and "Militant Payroll

Crowding" loops (figure 3-14) highlight the micro-economic incentives relevant to

---

182. See discussion of crime and conflict incentives in related work by G. Becker (1968);
Berman et al. (2009); P. Collier and Hoeffler (1998; 2000; and 2004); P. Collier et al. (2003);
Dowdney (2005); Soto Hardiman and Lapere (2004), and Weinstein (2007), among others.

militant mobilization. The loop draws attention to the financial opportunities a group

offers to potential participants relative to alternative gains in the broader economy.

<div style="text-align:center">

Integrated Loop Structure for *Greed
and Incentives* Mechanism
</div>

Figure 3-15 brings together ten *Greed and Incentives* loops that configure the

opportunity structures for violent youth mobilization. With linkages to other sectors,

mechanism loops focus on militant organizational capacity in four key areas:

1) <u>Recruitment</u> (*balancing* effects from "Government Fear"): The ability for a militant group to openly recruit (and the incentive for young people to join the movement) is limited by state repression, especially when the challenging group lacks sufficient capacity to protect would-be recruits.

2) <u>Effectiveness</u> (*balancing* "Repression Effects" and "Conflict Effects"): Militant groups are operationally most effective when faced with limited or ineffective state repression, allowing them to maintain their armaments and human capital intact without the need to reload. (Of course, conflict-driven marketing and repression-based grievances also contribute to…)

3) <u>Fundraising</u> (*reinforcing* effects from "Politically Motivated Emigration", "Diaspora Resource Mobilization", and "External Patron Mobilization", *balanced* by "Coerced Resource Mobilization"): Fundraising is a crucial component of militant capacity, whether sourced by an aggrieved diaspora community, a wealthy patron state, or, less sustainably, by coercion of the local community (with obvious costs to long-term militant legitimacy).

4) <u>Payroll</u> (*reinforcing* "War Booty" *balanced* by "Payroll Crowding"): Most high capacity militant groups depend on the service of paid (or somehow re-numerated) combatants. Amid phases of rapid growth in a movement, the pot of total benefits must be shared by growing militant constituencies.

"Attractiveness for Militant Mobilization" and "Number of Youth Militants",

are influenced directly by the loops via two causal factors: the "Government Fear"

Multiplier" and "War Booty Multiplier". Outcomes depend on whether *reinforcing* or

balancing dynamics of *Greed and Incentives* loops achieve dominance over time.
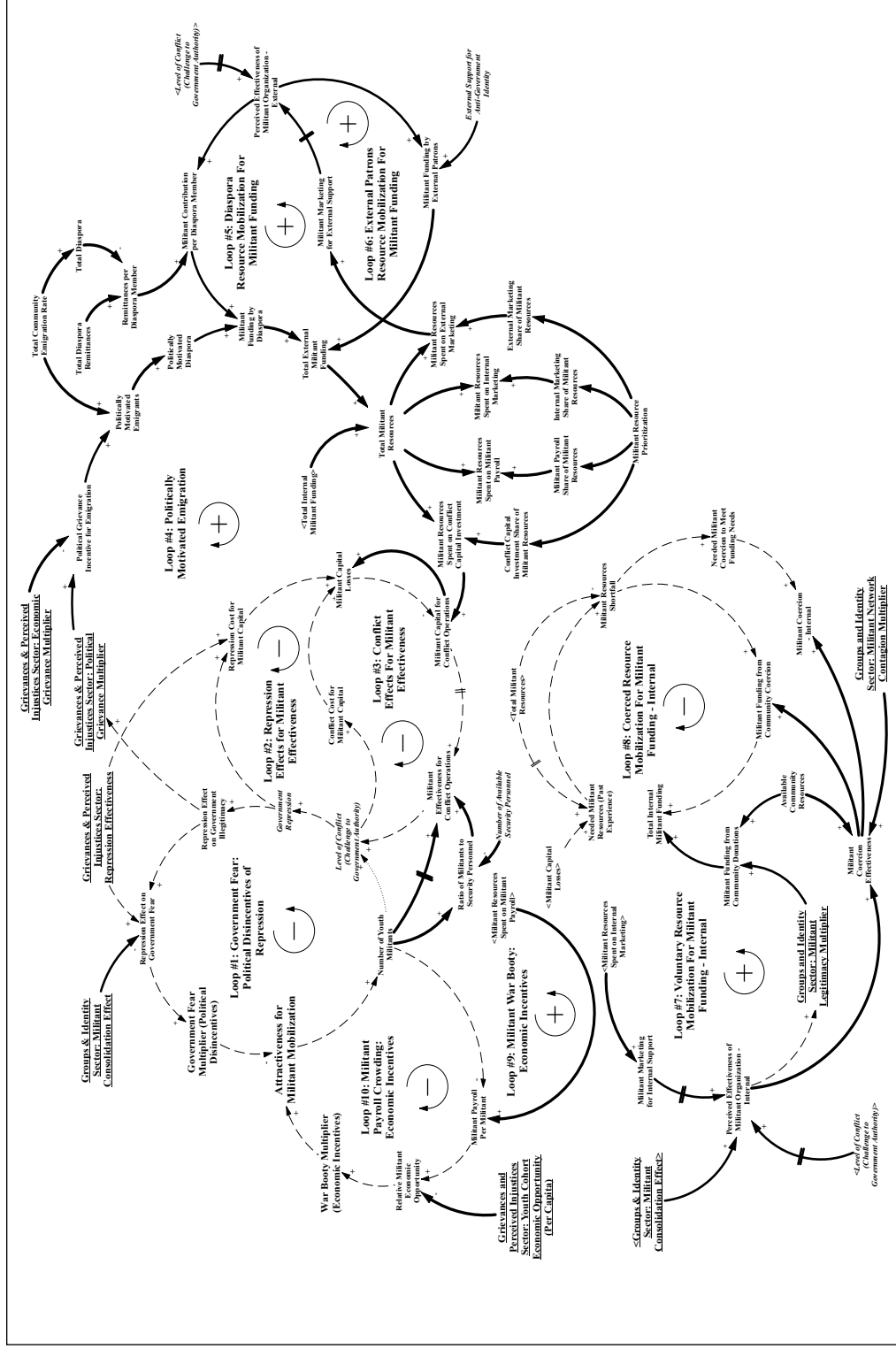
Figure 3-15. Greed and incentives mechanism: Integration of causal loops #1-10.

Conclusion: Integrating the Model's
Three Causal Mechanisms

This chapter has provided step-by-step loop descriptions for the three causal

mechanisms hypothesized to explain historical patterns of violent youth mobilization

in Sri Lanka and Nicaragua, among other global cases. Thus far, the three "G & I"

mechanisms – *Groups and Identity, Grievances and (Perceived) Injustice*, and *Greed

and Incentives* – have been treated in relative isolation, with limited discussion of

their cross-sector interactions. Figures 3-16, 3-17, and 3-18 finally connect relevant

loops of the three mechanisms. Designed for distinct analytic purposes, the diagrams

offer varied levels of causal loop detail.

In figure 3-16, the most complex and comprehensive of the three integrated

loop diagrams, all of the major mechanism loops are treated (consolidating labeling

as needed). Readers are likely to find the diagram quite difficult to follow, although

careful observers may appreciate the relative symmetry of its *reinforcing* ("+") and

balancing ("-") loops. Others may notice ubiquitous underlined variables, which

signify the presence of cross-sector causal relationships. For example, an underlined

variable such as "Government Legitimacy" not only plays a crucial explanatory role

for *Grievances and (Perceived) Injustice*; it also exerts causal influence for the

Groups and Identity mechanism via the "Militant Identity Resonance Loop".[183]

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183. Other cross-sector variables include "Number of Youth Militants", "Militant Legitimacy Multiplier", "Total Youth Population", "Level of Conflict", "Government Repression", "Repression Effectiveness", "Militant Coercion", "Militant Consolidation", "Militant Effectiveness for Conflict Operations", "Economic Production", and "Youth Cohort Economic Opportunity (Per Capita)", etc.
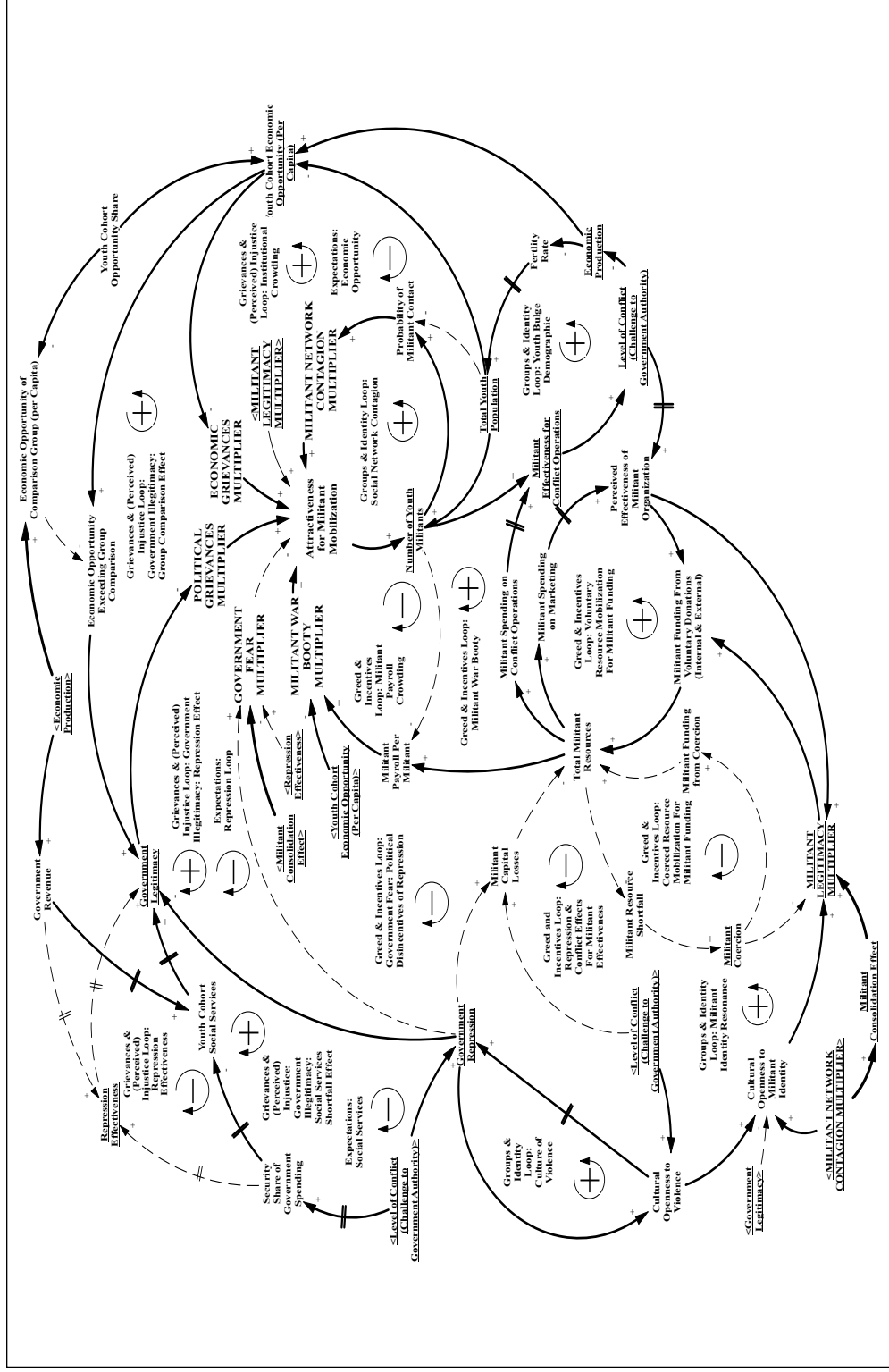
Figure 3-16. Integrating the causal mechanisms: Detailed loop diagram.
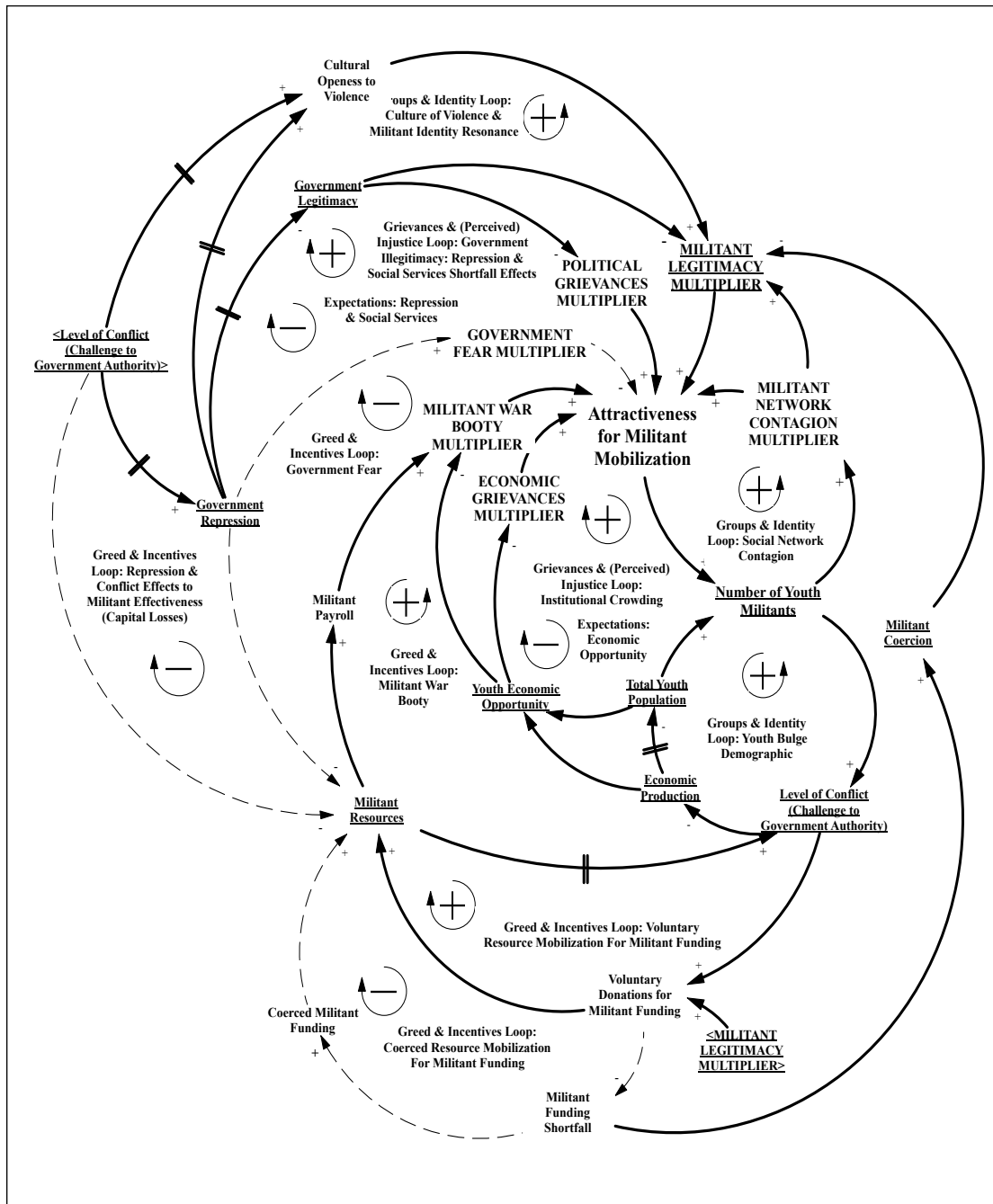
Figure 3-17. Integrating the causal mechanisms: "Big picture" loop diagram.

Figure 3-17 offers a more readable diagram that connects central loops for the

three causal mechanisms (described in the model as sectors). Immediately visible are

the six capitalized multiplier factors that link directly to "Attractiveness for Militant

Mobilization" in the diagram's upper right quadrant. There are two "Attractiveness" factors per causal mechanism, fed by each sector's *reinforcing* and *balancing* loops. Figure 3-17 helps one to visualize the six causal factors competing for year-to-year influence over militant "Attractiveness".[184] The relative explanatory power for each mechanism is tested in the future empirical chapters, predicated on the strength of the six respective multiplier/ causal factor values.

One of the hypotheses offered in Chapter 1 predicted that the explanatory dominance of causal mechanisms (regarding militant "Attractiveness" effects) would likely shift across time at particular "tipping points" (Gladwell 2000). Figure 3-18, greatly simplified from the previous two integrated diagrams, offers the best view to trace a mechanism-shifting scenario. Helping to determine sector dominance are the model's underlined variables, its cross-sector connectors.

A notable underlined variable standing out at the top-center of figure 3-18 is "Militant Legitimacy Multiplier". As one of two *multipliers* identified for the *Groups and Identity* mechanism, the variable plays an integral causal role in its own sector. But the "Militant Legitimacy" variable also receives and catalyzes causal impacts across mechanism boundaries. As a dependent variable, it is *balanced* by *Grievance and (Perceived) Injustice* (via "Government Legitimacy") and also by *Greed and Incentives* (via "Militant Coercion").[185] As an independent variable, it *reinforces Greed and Incentives* (via "Voluntary Militant Funding").

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184. The six causal factors/ multipliers are introduced in Chapter 2, shown in figure 2-7.

185. The first causal link is not direct in the "Militant Identity Resonance Loop" (Figure 3-3). "Government Legitimacy" *balances* the "Cultural Openness to Militant Identity", which subsequently *reinforces* "Militant Legitimacy".
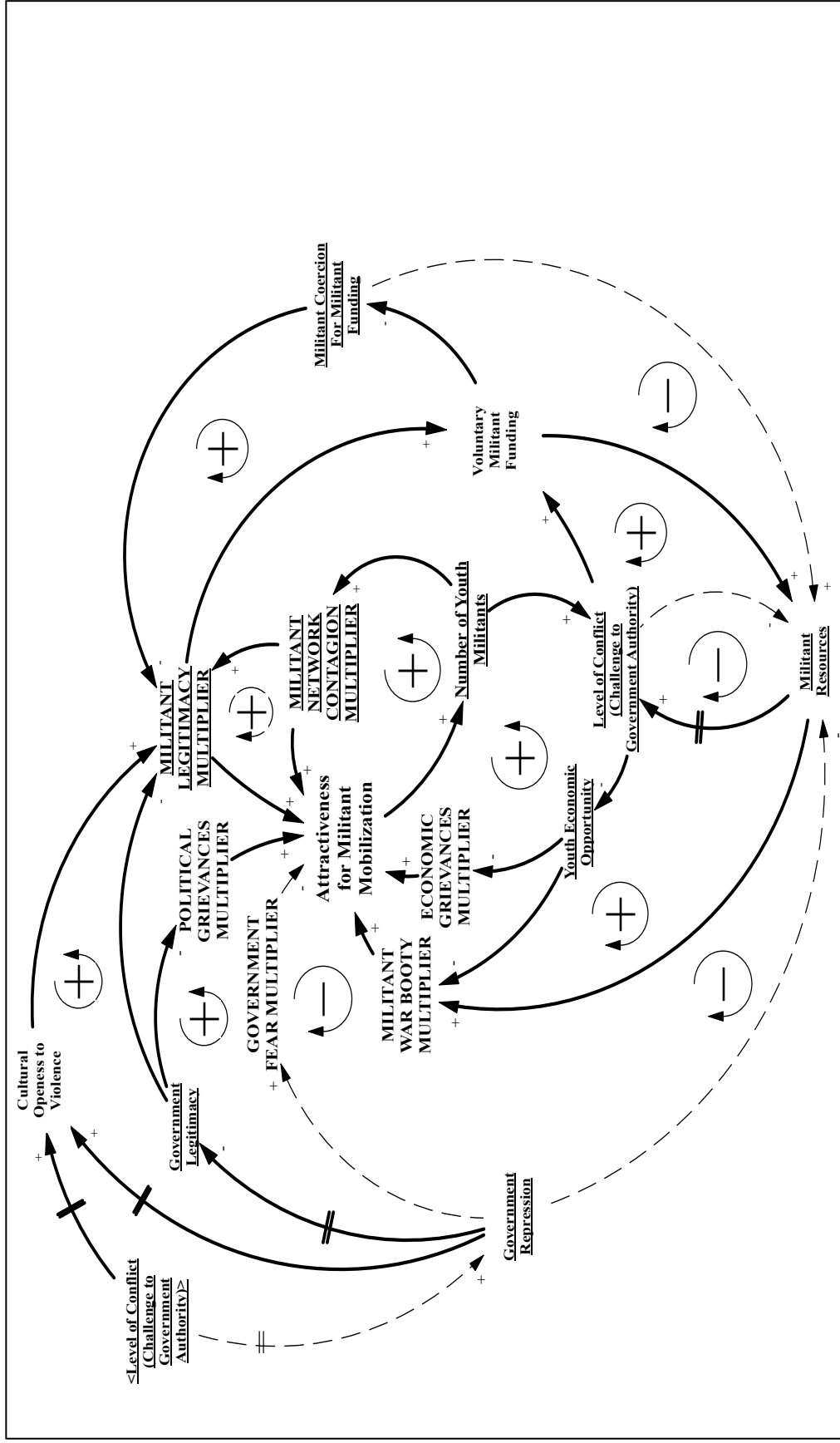
Figure 3-18. Integrating the causal mechanisms: "Top level summary" loop diagram.

Adding intrigue to the cross-sector underlined variables in figure 3-18 (and its more general predecessors) is the possibility that trends in one mechanism could shift the loop dominance or directionality in another. For example, in the case of "Militant Legitimacy", a *balancing* input from rapidly increasing "Militant Coercion" (*Greed and Incentives*) could undermine the positive trending from other *Groups and Identity* inputs, leading to diminished "Militant Legitimacy" overall, with feedback effects to militant "Attractiveness". Underlined cross-sector connector variables necessitate careful tracking by interested analysts across a given case timeline.[186] Many variables in figure 3-18 (or their proxies) are documented in more detail in Appendix B.

In conclusion, this chapter lays out a comprehensive, integrative conceptual model that synthesizes the contemporary state of knowledge on the causal dynamics of violent youth mobilization. It specifies relevant variables, hypothesizes key causal relationships, and offers data sources for three interactive mechanisms: *Groups and Identity* (figures 3-1 to 3-4)*, Grievances and (Perceived) Injustice* (figures 3-5 to 3-9) and *Greed and Incentives* (figures 3-10 to 3-15), which are linked (with varied levels of causal detail) in figures 3-16 to 3-18.

The next two chapters test model concepts against the case empirics and youth narratives of Sri Lanka (Chapter 4) and Nicaragua (Chapter 5) over a fifty-year time horizon, including multiple episodes and modalities of armed mobilization. Chapter 6 follows with a discussion of overall lessons learned, project limitations, and relevant case applications and model extensions.

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186. Other model "leverage points" (and limitations) are discussed in Chapter 6, drawing on insights from the case analysis in Chapter 4 (Sri Lanka) and Chapter 5 (Nicaragua).

CHAPTER 4

APPLYING THE MODEL TO THE CASE OF SRI LANKA

This chapter examines the simulated results of the project model applied to the country case of Sri Lanka. It tests the model's findings against the island's historical record and illustrative youth narratives over a fifty-year time horizon. The chapter analyzes shifting patterns of violent mobilization for Sinhalese and Tamil youth from 1960 to 2010, addressing three of the four research questions raised in chapter 1:

1) Is it possible for one system-level model to explain the empirical patterns of growth and decline in the number of Sri Lankan youth who have actively participated with non-state armed groups in the last half-century?

2) What are the most salient explanatory factors or causal mechanisms that influence the "attractiveness" of youth participation with armed groups?

3) Does the explanatory value of these causal mechanisms vary across different forms of armed mobilization and distinct institutional contexts?

In response, the project offers a comprehensive model explanation of violent youth mobilization in Sri Lanka over an extended period. The chapter analyzes case relevance of three causal mechanisms and six "attractiveness" factors posited in the model to catalyze armed mobilization, and it specifies relative shifts in explanatory value of mechanisms and "attractiveness" factors amid different institutional contexts.

Figures 4-1 and 4-2 estimate young people's participation in Sinhalese and Tamil armed groups across time, comparing simulated model calculations with the reference data inputs. The graphs provide a longitudinal view of armed mobilization for both cohorts and provide an eyeball test of model fit to country case empirics.
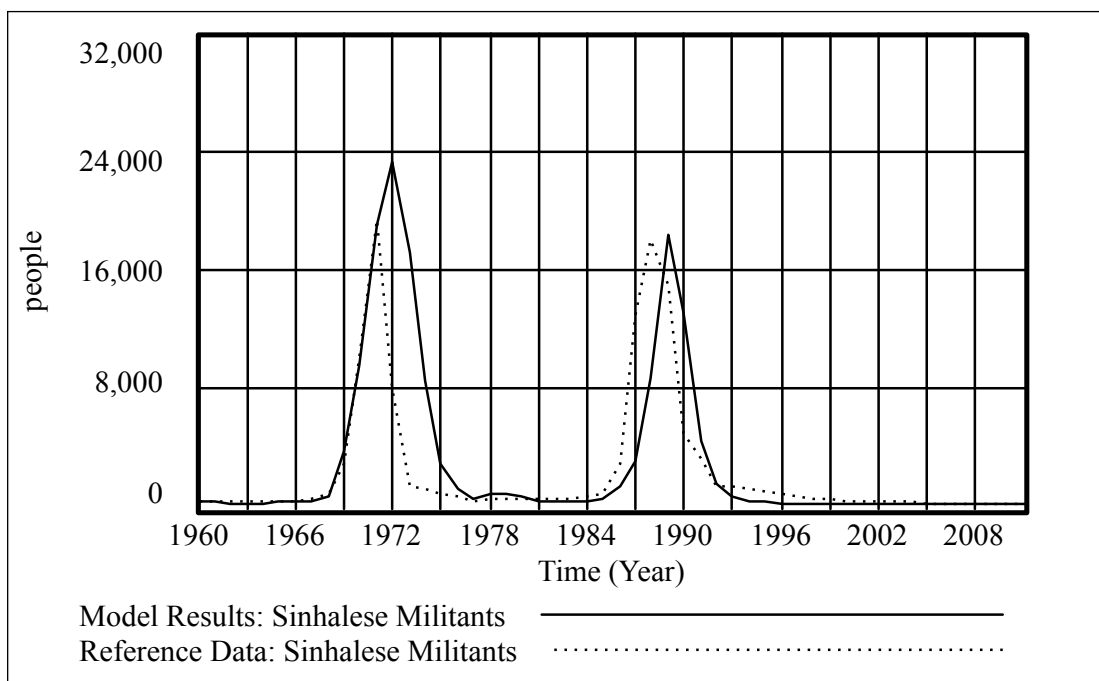
Figure 4-1. Estimates of Sinhalese youth participants in non-state armed groups, 1960-2010: Model vs. reference data.
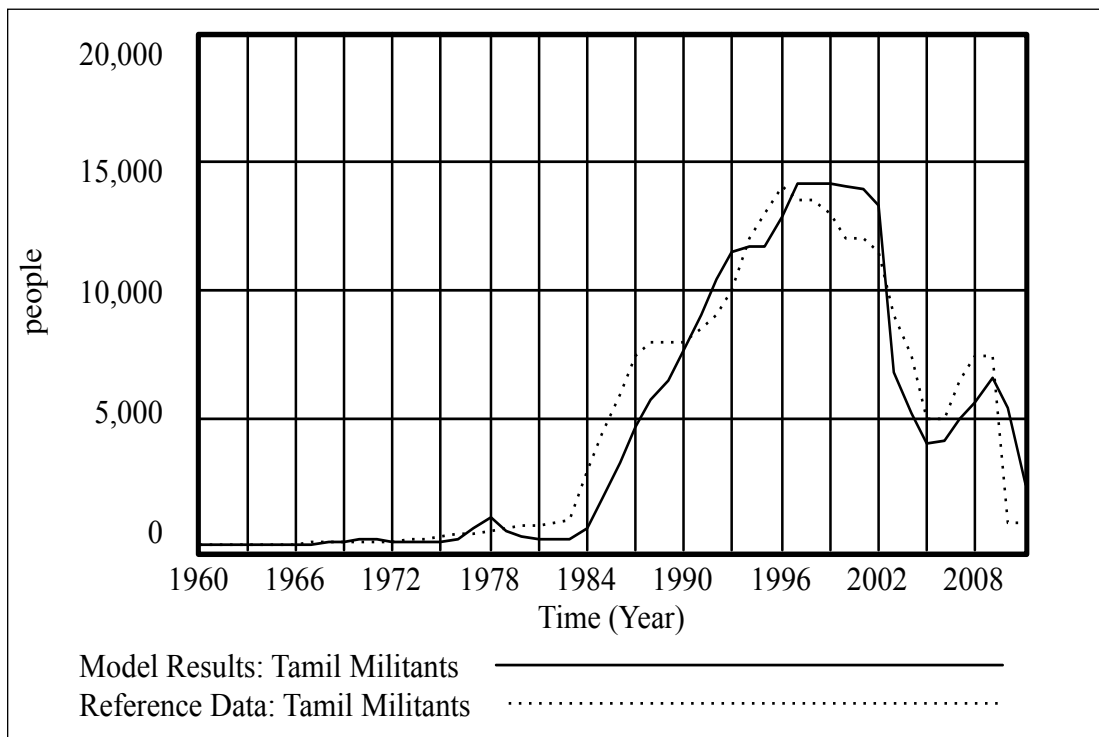
Figure 4-2. Estimates of Tamil youth participants in non-state armed groups, 1960-2010: Model vs. reference data.

There is some variance in figures 4-1 and 4-2 between the model results (solid lines) and reference estimates (dashed lines), but the comparative delay in the model results' peaks and valleys is to be expected. Sterman (2000, 521) reminds, "Because all models are wrong", the priority should be utility and testability over "establishing truthfulness". For a systems model, it is less important to precisely match reference timelines and numerical values than to guarantee conceptual clarity, to achieve broad consistency in system behavior (tendencies toward oscillations, exponential growth, decay, goal-seeking, etc.), and to match at least the broad patterns of ebb and flow.

Model results in figures 4-1 and 4-2 match the general ebb and flow of reference data and fall well within an acceptable order of magnitude.[187] Therefore it makes sense to analyze comparative causal mechanisms to better assess the model's overall utility. Again, the model applied to Sri Lanka has been subject to and passed most generally accepted "confidence building" tests for system dynamics models.[188]

Overview of Chapter Structure

The chapter continues by introducing the first of two project country cases. It provides a general overview of Sri Lanka to help readers understand the complex and evolving dynamics of youth mobilization and violence over the last fifty years. Key aspects of political, social, and economic history are explored for both Sinhalese and

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187. As discussed in Chapter 3, reference data for Sinhalese and Tamil youth militants has been constructed across competing sources; thus, differences are to be expected in model results. For full documentation of the model and utilized datasets and sources, see archive of M. Hamilton (2012).

188. Model confidence building and validation issues are discussed in Chapters 2 and 6. See also Balderstone (1999); Forrester (1973); Forrester and Senge (1980); Radzicki and Tauheed (2009); and Zagonel and Corbet (2006), etc., for background on system dynamics confidence building.

Tamil communities. The case introduction underscores the potential causes of youth

mobilization in Sri Lanka, foreshadowing subsequent model discussion and analysis.

Next, the chapter focuses on key periods of intense armed mobilization (and

demobilization) for Sinhalese and Tamil ethnic communities. It offers period-specific

individual narratives to draw out the common experiences of everyday Sinhalese and

Tamil youth. This narrative approach draws on the theory-embedded ethnography of

Lewis (1959; 1961) and other social scientists, leveraging the art of story telling to

connect theory with people's everyday experience. Instead of limiting these narratives

to a single source, however, the chapter melds and stylizes diverse real-life accounts

(gathered through field interviews, surveys, background readings, etc.) to create an

illustrative and personalized characterization for a given historical period.[189]

Subsequent model discussion analyzes the fit of simulated results with the

chapter's illustrative narratives and other historical data. It considers the alignment

between dominant "attractiveness" factors predicted in the model and insights from

the case-based historical record. The narratives are not treated as empirical record per

se, but they are utilized for illustrative purposes, a practical means to test the model

hypotheses against case data from diverse real-life accounts and scholarly sources.

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189. Intensive field research was conducted in Sri Lanka for several months during the most recent peace process (from 2002-2006). Significant time was spent inside and outside the capital (Colombo), including research trips to the north, east, and south of the island. More than 100 in-depth interviews were conducted with a host of business leaders, academics, politicians, religious leaders, and non-profit activists as well as students, teachers, tea pluckers, and fishermen. Sympathizers and participants of the JVP, LTTE, and Sri Lankan Army provided unique narratives via in-depth consultations and informal focus groups. Later, following the devastating 2004 tsunami and renewed conflict activity, many interviews were conducted with national and international relief organizations working inside and outside Sri Lanka.

The chapter closes with a brief assessment of the model's correspondence to the historical record (in general terms) and considers its explanatory relevance for the Sri Lankan case. In conclusion, it reviews project research questions and discusses the extent to which chapter objectives have been met.

Introduction of the Sri Lanka Case

Formerly known as Ceylon, this South Asian island nation across the straits from India once attracted the attention of development practitioners for consistently high social development indicators.[190] Until the mid-1950s, "Ceylon" was considered one of the best examples in Asia, Africa, and the Caribbean of a peaceful transfer of power from the British Empire.[191]

During the last forty years, though, three violent uprisings – the well-known and recently defeated separatist insurgency in the north and east, led by the Tamil Tigers (LTTE), and two lesser-known but deadly insurrections in Sri Lanka's south initiated by the Maoist, Sinhalese-Buddhist JVP (*Janatha Vimukthi Paramuna*) – have resulted in up to 100,000 deaths and vast social dislocation.

This chapter argues that the continued inability of the Sri Lankan government to deal effectively and even-handedly with its fragmented youth population deserves much of the blame for the country's chronic conflict and thwarted development. It is

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190. Early praises of Ceylon's social development successes are documented by Richardson (2005) and the United Nations Development Program - UNDP (1998), among others.

191. According to de Silva (1998), the diverse ethnic, political, and economic communities of the island collaborated for independence in 1947. Relative, if cautious, harmony reigned in the post-independence period, and Ceylon became seen as a successful model of postcolonial transition. The nascent state possessed a thriving civil service, strong human capital resources, formidable global assets, and physical infrastructure linked to British tea, rubber, and coconut export industries.

notable that the two JVP insurrections and the protracted separatist conflict led by the LTTE originally took root among marginalized youth sectors in Sinhalese and Tamil communities. Recruits shared common frustrations about their lack of opportunity and societal voice, as noted by analysts familiar with recent Sri Lankan history.[192]

<div align="center">

The Emergence of the JVP and Armed
Mobilization of Sinhalese Youth

</div>

The catalyzing backdrop of the 1971 JVP youth rebellion was an amalgam of political, economic, and demographic challenges. Following Ceylon's independence, populist political rhetoric combined with policies of social expansion to heighten the expectations of Sinhalese youth for greater economic and political opportunity.[193]

At the time of the JVP rebellion in 1971, about sixty percent of Sri Lanka's population was under twenty-five years of age, and employment opportunities in its stagnant economy could not keep up with burgeoning expectations.[194] Improvements in health care, a benign effect of development policies, combined with a post-World War baby boom to nearly double the island population after 1946. The labor force expanded by one quarter between 1963 and 1971, dwarfing the relative job growth,

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192. See discussion by Abeyratne (2004; 2008); Hettige (2004); Kloos (1993); Richardson (2005); and Samaranayake (1997), among others. According to Hettige (2010, 89), "These two seemingly divergent youth constituencies also have a lot in common... both are committed to egalitarian ideologies and have similar grievances against the dominant strata or elite segments of society". Samaranayake (2002), a 1971 JVP participant and career researcher of JVP-LTTE linkages, commented in a lengthy interview: "Look from the South and you'll understand Jaffna."

193. See relevant expectation discussion by Attanayake (2001) and Richardson (2005). Sinhalese mobilization was crucial in post-independence elections and catalyzed a controversial "Sinhala Only" language policy in 1956, which was protested vehemently and non-violently in the Tamil community. Prior to independence, the minority Tamil community was widely perceived as favored by the British.

194. Abeyratne (2004) and Samaranayake (1990) discuss challenges of demographic transition in a resource-constricted context. Subsequent employment statistics are drawn from Attanayake (2001).

which increased only thirteen percent. The unemployed population grew from less than 400,000 in 1959 to some 550,000 in 1970 (an increase of almost forty percent) and these tallies vastly over-represented youth. Of course, unemployment was not the only problem: an insightful report that was commissioned by the International Labor Organization (ILO) found a severe mismatch between youth job expectations and the economic realities of the nation's market structure (Seers 1971).[195]

Empowered by increased education, desirous of white-collar jobs, and jealous of perceived excesses by capital city elites in Colombo and unknown Tamil rivals, many southern youth became susceptible to JVP radicalization.[196] The movement and its charismatic leader, Rohana Wijeweera, were able to establish ideology-infused networks among frustrated Sinhalese youth, eventually leveraged for insurgency.[197]

In April 1971, the JVP surprised the government and much of the population with its coordinated attacks on southern police stations, installations symbolic of state authority. However, due to an array of factors, including poor strategic planning by the JVP and the movement's limited resource base (Gunaratna 2001; Levy 1988;

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195. Mismatch remains between expectations and market opportunities (Lakshman 2002).

196. Sociologist Hettige (2000, 328) notes, "Many of the youth who joined anti-systemic movements did not perceive their inability to secure employment as a product of demand and supply."

197. JVP mobilization dynamics prior to the 1971 uprising are discussed by Gunaratna (2001); Kearney (1977); R. Levy (1988); Obeyesekere (1974); and Samaranayake (1997, 2008); etc. Rural young men were most open to Wijeweera's "Five Lectures", which channeled their economic frustrations into a marketing call for revolutionary action. The ideological lessons were delivered in intensive education "camps", centered on the themes of *Economic Crisis, Independence, Indian Expansionism, Left-Wing Movement*, and *The Path to Sri Lankan Revolution* (Samaranayake 2008). According to Kearney (1977, 515), the JVP mobilized a "significant following among Sinhalese Buddhist youth" by 1970.

Richardson 2005; Samaranayake 1997; etc.), within weeks security forces were able to brutally, if belatedly, restore national control.[198]

Following its repressive crackdown of the JVP, the government attempted to reform jailed militants and began to implement new social policies meant to restore youth confidence. Still, the decade of the 1970s sputtered economically, and remained plagued by unemployment, widespread inefficiencies, falling commodity prices, and lopsided political patronage networks. Rather than smoothing economic and political transitions, the structural roots were laid for a future JVP uprising (to be realized in the late 1980s).[199]

<div align="center">The Emergence of the LTTE and the
Armed Mobilization of Tamil Youth</div>

Militancy among Tamil youth was mobilized at approximately the same time as the 1971 JVP rebellion. Lack of priority for the Tamil community in the "Sinhala Only" language campaign of 1956 catalyzed a perception of state discrimination that solidified ethnic community polarization.[200] A series of failed political agreements weakened the community credibility of Tamil parliamentarians, and the Sinhalese-

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198. Estimates of the number of JVP-affiliated youth killed by government repression vary between 2,000 and 10,000 (JVP Sri Lanka 2010), but according to Gunaratna (2001, 105), the "terror employed by the State to wipe out the radicals and the militants of the JVP was such that it would never be possible to give an accurate record or the number killed." Regarding JVP imprisonment, of the 18,000 youth originally taken into custody, the count was "sifted down to about 10,000" and charges were brought against just under 4,000 (Kearney 1977, 515). Wijeweera and other top leaders were sentenced to long prison terms, but eventually they were released in a symbolic bid by a subsequent Sri Lankan president to make a break from the past.

199. Another effect of youth frustration in this period (and ever since) is Sri Lanka's tendency for heightened suicide levels (Atukorola 1998; Kearney and Miller 1985).

200. Loganathan (1996, 3), a Tamil scholar-activist assassinated in 2006, argued Tamil civil society was "primarily conciliatory" at independence. According to interviewed professors at the University of Jaffna, however, Tamil youth boasts a long tradition of ethnic political mobilization.

friendly policies instituted to respond to the JVP uprising had the unintended effect of alienating large numbers of Tamil youth.[201]

In the early 1970s, the government passed a constitution favoring Sinhalese cultural icons, including support for the predominate religion, Theravada Buddhism. It then changed the country name from the colonial moniker "Ceylon" to "Sri Lanka", an ancient Sanskrit term wrapped in Sinhalese lore translated as "resplendent land". Even more divisive, though, was the government's decision to "standardize" state education policies to prioritize greater opportunity for rural (Sinhalese) youth.[202] This decision effectively reduced the number of Tamil university entrants, producing real and perceived adverse implications for their future job opportunities.[203] As the decade progressed, the aid-infused development projects prioritized by the "open economy" regime of President J.R. Jayawardene, in particular the Accelerated Mahaweli Project, further marginalized minority Tamil leaders who considered these policies to be acts of "colonization" into historically Tamil areas.[204]

In the 1970s, then, against a fevered backdrop of demographic explosion, high unemployment, intra-communal caste frustrations, and policy-driven ethnic tensions,

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201. According to Richardson (2005, 28), "Some argue that the rebelliousness of Tamil youth is as much a reaction to Jaffna's rigid caste system as to discriminatory policies imposed by Sinhalese dominated governments."

202. The polarizing effects of "standardization" have been discussed by Loganathan (1996); Ponnambalam (1983); Richardson (2005); and Swamy (1994; 2004), among others. Regarding Tamil frustrations and the roots of subsequent militancy, Abeyratne (2004; 2008) blames general economic stagnancy rather than the government's "standardization" policy per se.

203. The Tamil community had long dominated the rolls of science and technology fields in Ceylon higher education (Abeyratne 2004).

204. According to Hettige (2000b, 30), "The social and economic policies adopted by the post-colonial state did not help promote social integration, in particular between ethnic communities."

a committed core of Tamil youth militants began to mobilize. The young leaders of a newly formed LTTE (and a few similar organizations) studied failures of the recent JVP uprising and the successes of a concurrent separatist campaign waged in Bangladesh. The latter uprising relied significantly on Indian intervention, which influenced young Tamil militants to quietly begin establishing regional networks to mobilize needed capital resources.[205]

After the watershed anti-Tamil rioting in 1983, an event mourned locally as "Black July", many Tamils held the government responsible for pogrom bloodshed, terror, and destruction to property.[206] A generation of Tamil youth fled Sinhalese-dominated communities. Many migrated to the Tamil city of Jaffna (at the northern tip of the island), and others continued across the narrow straits to southern India, where a Tamil-dominant community was increasingly open to the separatist cause.

The Re-Emergence of the JVP and Renewed
Armed Mobilization of Sinhalese Youth

Just as the 1971 JVP rebellion influenced the birth and strategy of the LTTE, the political fall-out of "Black July" and deepened ethnic conflict produced important ramifications in the south for a rejuvenated JVP movement. The promise of the 1977 "open economy" had waned by the mid-1980s, and the fighting in the north and east

205. Loganathan (1996); Samaranayake (2007; 2008); and Swamy (1994; 2004) chronicle the early years of armed Tamil mobilization, documenting the crucial support by Indian allies.

206. Authors including Imtiyaz and Stavis (2008); Kumarakulasingam and Akan (1999); Kumarakulasingam (2005); Loganathan (1996); Richardson (2005); Roberts (2005),; Tambiah (1992; 1996); and Wilson (2000), have analyzed the 1983 "Black July" pogrom and its scarring effects for continued ethnic distrust in the Tamil community.

has stretched government resources. This greatly limited state spending on policies in support of education, health care, and job creation for Sinhalese (and Tamil) youth.[207]

The JVP, which was forced underground in the early 1970s and again in 1983, maintained the Marxist edge of its earlier incursion on state authority. But in the mid-1980s its organizational rhetoric and mass mobilization became increasingly ethno-nationalist in tone.[208] Again the group marketed to the alienated youth of Sri Lanka's rural south and central regions, a cohort frustrated by failed economic and political expectations.[209]

In 1987, an Indian intervention to broker regional devolution was marketed by Sinhalese critics as catering to Tamil radicals at the expense of "deserving" southern youth. The peace talks acted as a catalyst for violent JVP protests, strikes, and riots. Over a two-year period, the JVP targeted public officials and state-affiliated "traitors" with intimidation and assassination. The group enforced general strikes that terrorized the population and "partially paralyzed" the state (Rogers et al. 1998, 773). The close of the decade saw savage acts of terror committed by all sides in what became an open guerrilla war between the JVP, state security forces, and paramilitary proxies. By 1990, though, brutal state repression effectively silenced the JVP armed threat.

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207. On education shortfalls and ineffectiveness, see Attanayake (2001); Hettige (2000a); and Richardson (2005). On the specified costs of conflict, see Arunatike et al. (2000) and Richardson and Samarasinghe (1991), among others.

208. See discussion of JVP messaging in Gunaratna (2001); R. Levy (1988); Spencer (1990); etc. Changes were based on lessons from 1971 and a new strategic situation, but targets were similar.

209. An interviewed professor at the University of Peredeniya shared about a little-known national youth survey that he helped conduct in early 1983 (Atukorola 2002). Commissioned by the Ministry of Youth, the report showed high levels of polarization and predicted a 1971-style uprising in the mid to late 1980s. Due to the disconcerting conclusions and potential for adverse global response, most copies were recollected and destroyed. The responsible decision-maker, Ranil Wickremasinghe, Youth Minister at the time, later became Prime Minister of Sri Lanka (1993-1994, 2001-2004).

In retrospect, the mass youth dedication to the JVP in the Sinhalese south was blamed on "the lack of youth guidance in mainstream politics and an aimless future for educated youth (Attanayake 2001, 237)." The themes that emerged before a 1990 Presidential Youth Commission were predictable: complaints about social injustices ignored by the state, over-politicization and lack of institutional responsiveness, and continued mismatch between educational programs and employment opportunities. Attanayake (2001, 236) shares the testimony of one youth decrying social injustice as the source of youth unrest: "Freedom in 1948 was for Royal College (the English-educated, westernized upper strata of society in Colombo), freedom in 1956 was for Ananda College (The Sinhala-educated Buddhist upper and middle strata of society in Colombo); so, the struggle in 1988-89 was to win freedom for the Weeraketiya Maha Vihalaya (the lowest strata of the Sinhalese society in the deep south)."

The Commission representatives called for revamped "systems ensuring some degree of sensitivity to the changing nuances and priorities of youth aspirations" (Government of Sri Lanka 1990, 8). Subsequent regimes, though, have continued to struggle with youth-friendly policy.[210] The last twenty years have progressed without the JVP arming another anti-state movement; however, the sentiments of frustration continue to simmer in an economically ravaged south. The JVP has emerged as a key actor in mainstream politics, often playing a spoiler role in ethnic politics.

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210. See discussion of youth frustrations in Hettige and Mayer (2002); Hettige et al. (2004).

Consolidation of the LTTE and Continued
Armed Mobilization of Tamil Youth

After the collective trauma of "Black July", Tamil youth sought outlets for

their political grievances and sense of hopelessness.[211] The explosion in enlistment of

their neighbors, friends, and family members encouraged many disaffected youth to

join the "boys" in armed nationalist struggle, including training and indoctrination by

rival separatist groups in the mid-1980s.[212]

In 1987, an Indian Peacekeeping Force (IPKF) arrived to the island to secure

and enforce a new Indo-Sri Lankan Accord that was intended to enhance autonomy

for the Tamil community. Most Tamil armed groups joined in the political process,

but the LTTE, led by its charismatic founder-leader, Velupillai Prabhakaran, refused

to disarm after initial agreements.

Operating in Tamil-dominant regions, the Tigers militarily engaged a much

larger IPKF contingent in guerrilla and information warfare until the Indian forces

were finally forced to leave the island in 1990.[213] With the departure of the Indian

forces, the LTTE now monopolized armed control in the northern territories.

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211. See discussion by Imtiyaz and Stavis (2008); Richardson (2005); Roberts (2005); Rogers et al. (1998); Swamy (1994); and Wilson (2000) on "Black July"-catalyzed armed mobilization.

212. The competition-fortified market of Tamil militant mobilization is discussed in the work of Loganathan (1996; 2003); Richardson (2005); Roberts (2005); and Swamy (1994); etc. Five Tamil armed groups – including TELO (*Tamil Eelam Liberation Organization*), PLOTE (*People's Liberation Organization of Tamil Eelam*), EROS (*Revolutionary Organization of Students*), EPRLF (*Eelam Peoples Revolutionary Liberation Front*), and the LTTE (*Liberation Tigers of Tamil Eelam*) – were of most consequence, though only the latter group insisted members take an "oath of loyalty" (Roberts 2005, 496). As for rivalries, former EPRLF militant Loganathan (2003) claimed, "More Tamil youths were killed in fratricidal conflicts during 1986-87 than in combat with the security forces."

213. According to Lilja (2009, 314), "The Tigers in Jaffna initially spread stories of rapes and killings of civilians by Indian soldiers, changing people's perceptions of the IPKF (and) allegedly turning into self-fulfilling prophesies."

The Tigers initiated local recruiting campaigns and sought external resources to sustain renewed hostilities with the Sri Lankan government. To catalyze their local recruiting and aid community "entrapment", the LTTE crafted a movement narrative strategically imbued with cultural-religious symbols resonant for young Tamils.[214] Externally, the LTTE looked to an expanding global network of Tamil Diaspora for capacity-building support: the Diaspora offered exchange of information, awareness-raising for the cause, lobbying of host governments, and raising of operational funds, among other functions.[215] After LTTE victories, local recruits and external resources flowed relatively easily, but in tough times, especially after military defeats, the group began to employ coercive methods extending "beyond the voluntary".[216] LTTE armed mobilization continued to flourish for much of the next two decades, taking periodic interruptions along the way to pursue high-level negotiations with the Sri Lankan government.[217]

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214. "Entrapment" refers to "lowering constituents' costs of moving from passive to active support" (Lilja 2009, 321). See discussion of Tamil martyrdom rites in Ramasubramanian (2008); Roberts (2005); and Swamy (1994).

215. See discussion of LTTE resource mobilization by Wayland (2005). According to a former Sri Lankan president, Tamil expatriates in Western nations of Canada, the United Kingdom, Australia, and United States represent the "the world's most powerful minority"(Wilson 2000, 123).

216. Citation by Lilja (2009, 315). See critical discussion of LTTE taxation, intimidation, kidnapping, and extortion in Aryasinha (2001; 2008); Battle (2010); Beardsley and McQuinn (2009); Byman et al. (2001); Iyer (2007); and Wayland (2005), among others. The Tigers never enjoyed the same level of external support and sanctuary from the Indian government after the 1991 assassination of Rajiv Gandhi, which was blamed on the LTTE (purportedly as retribution for the IPKF debacle).

217. The doctoral dissertation of Iyer (2007) examines the dynamic political context of negotiations between the Sri Lankan government and Tamil armed challengers (like the LTTE).

Prospects of Peace, Military Defeat of the LTTE
and Potential Futures for Youth in Sri Lanka

Sinhalese and Tamil youth sectors, even today, bear significant wounds from

the political tensions that have exploded into violence since 1971. According to a

leading social scientist once active in the JVP, Sri Lanka remains "a shell-shocked

society where reason and considered judgment in ethnic politics have given way to

the politics of anxiety (Uyangoda 1999, 166)."

Project-related interviews with diverse Sri Lankan youth resonated with the

concerns raised by a broad national youth survey at the turn of the millennium.[218] In

that survey, only four percent of all youth claimed to trust the political process, while

a staggering three quarters believed that no one helped to solve their problems. Only

twenty percent of youth agreed with the statement that societal justice was present in

the island. Cynicism was actually highest in the opportunity-rich western province,

which underscores the importance of expectations. In terms of political ideology, only

ten percent of youth favored a capitalist system, while some sixty percent advocated a

communist or socialist ethic.[219] Finally, more than thirty percent of youth (and forty

percent among college graduates) still believed in the legitimacy of armed struggle.[220]

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218. The survey of the Centre for Anthropological and Sociological Studies and South Asia Institute (2000) boasts a multistage, stratified random sample of nearly 3000 youth between the ages 15-29. At the time of survey, levels of youth unrest were high, especially among rural educated Sinhalese who saw little priority to "national" concerns and saw less opportunity to reap benefits of their studies. Many Tamil youth, resentful of war, decried a lack of job equity and political space. Many Muslim youth, meanwhile, were frustrated by LTTE/ Tamil dominance in the multiethnic east. Such widespread frustration set the stage for broad deprivation and warned that youth social capital in Sri Lanka required significant attention. See related discussion in Fernando (2002) and Mayer (2002).

219. Tamil youth were more prone to the latter ideology than in the JVP-influenced South.

220. This demonstrates the widespread "Cultural Openness to Violence" among youth.

The most recent peace process between the Sri Lankan government and the LTTE (2002-2006) offered a window of opportunity to facilitate ethnic peace and engage young stakeholders in the process. The ceasefire offered an unprecedented chance for communal dialogue and saw a wave of financial support from sources domestic and abroad. A shrinking youth population lessened institutional crowding, offering space for economic and political opportunity not present during twenty years of active conflict or during the demographic explosion of the 1960s and 1970s.

In this delicate political context, then-Prime Minister Ranil Wickremasinghe developed a reform agenda called "Regaining Sri Lanka". It called for concurrent, aggressive policies for economic and political liberalization. The plan, celebrated among foreign donors, came to be seen as a political and livelihood threat to diverse island stakeholders, especially educated young people in the Sinhalese south. An interview-rich analysis, circulated to national policymakers, warned of a potential political backlash if the reform agenda was not reconsidered, retimed, or reframed.[221]

The year 2004 saw these backlash threats come to fruition in the political (electoral) mobilization of Sinhalese youth and a resurgent, if unarmed JVP polity. They sought regime change to halt or at least refocus national political and economic reforms. According to many analysts, the resultant changes in government leadership

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221. M. Hamilton (2003) offered five recommendations based on analysis of the reform plan, a review of historical antecedents, and diverse island interviews: 1) Build up private sector credibility before handing over state responsibilities; 2) Slow liberalization and urbanization reforms long enough for the polity to catch up; 3) Provide job-rich development in areas of wide youth discontent (including the "deep south"); 4) Broaden skill-based education without alienating university graduates, and 5) Be "gracious" to political losers to maximize national ownership and the sustainability of reform efforts.

signaled death throes for the fragile peace process; others continued to blame LTTE sabre rattling for undermining the accords.[222]

In any case, by 2006 the LTTE had renewed its armed mobilization, and the government discourses again centered on themes of national security, anti-terrorism, and Sinhalese national pride. The LTTE was weakened in 2004 by its first leadership fragmentation, the high profile defection of an Eastern commander (Coronel Karuna), along with 5,000 disillusioned militants.[223] Finally, in May 2009, after thirty-five years of struggle, the LTTE was finally defeated in a concerted, if controversial, campaign launched by a government regime firmly committed to an all-out "military solution". Young people, as in other battles, served as the foot soldiers on both sides.

Today, in the absence of war, political crises continue to abound in and across ethnic communities. Government conduct in the final stages of the LTTE war (and its immediate aftermath) has come under fire from human rights groups, journalists, and varied international observers, including the United Nations Human Rights Council. The opposition leader during the 2010 presidential election, a popular general who led the final offensive against the LTTE, has since been arrested on conspiracy charges for "military offenses". Parliament has been dissolved at strategic junctures. And 2011 elections in war torn Tamil districts, voting for the first time without LTTE

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222. For competing perspectives on blame for the broken accords, see de Silva (2007) and Mishler et al. (2007), vs. Aryasinha (2008) and C. Smith (2008), the latter pair critiquing the LTTE.

223. Vinayagamoorthy Muralitharan, known as "Colonel Karuna Amman", left his post as a top LTTE leader after swearing off "terrorism" and critiquing discrimination of the Tigers against the Tamils of the Eastern province. His followers, the *Tamil Makkal Viduthalai Pulikal* (TMVP), battled alongside the Sri Lankan army in a campaign to retake the LTTE Eastern province from 2006.

influence or control, demonstrated continued distrust of the current governing regime, empowering the Tamil National Alliance with two-thirds of the local council vote.

Amid such controversies, questions of youth policy and ethnic reconciliation again have been pushed to the margins. Time will tell if the island's leaders are able to seek creative responses to the distinct yet linked needs of Sri Lanka's diverse youth communities. Questions remain as to whether the country can overcome its heritage of inflammatory political rhetoric, post-conflict trauma, and economic challenges in order to transform the outlook and life experience for young people island-wide.[224]

A Closer Look at Armed Youth Mobilization: Illustrative Narratives and Model Discussion

This section explores key periods of militant mobilization and demobilization in Sri Lanka in the last fifty years. Organized first by ethnicity and then chronology, illustrative narratives are introduced to offer a more grounded account of mobilization dynamics in a given historical period. These case-driven stories, which personalize a broad range of empirical data, are then analyzed in context of the quantitative model results, which are considered period-by-period.

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224. Island political culture has been transformed by Sri Lanka's "twin conflicts" (Abeyratne 2004; Mayer 2002). Given this history of youth activism, it seems wise for contemporary policymakers to examine the perceptions and expectations of at-risk youth sectors. Recent years have seen creation of a new urban middle class (especially in Colombo), greater women's economic participation, and pockets of opportunity afforded by cultural and economic globalization. Still, the majority of youth see themselves denied upward mobility, preferring to queue and protest for better opportunities (Lakshman 2002; Gunawardena 2002; etc.).

A Narrative Account of JVP Mobilization
for the 1971 Rebellion: Gayan's Story

In a small village near the southern city of Hambentota, twenty-three year-old

Gayan sits alongside a group of fifteen or so youth in an intense educational camp

organized by itinerant lecturer Rojana Wijeeweera. It is 1968, and in a weekend, the

charismatic JVP leader offers Gayan and his peers a compelling, if radical framework

to help them interpret and direct their political and economic frustrations.

Gayan, who graduated from university with high hopes for a future beyond

the local rice paddy field, is now unemployed after a stint as a secondary school

teacher. His invitation to the JVP camp came from one of his former students.

Chandana, still only eighteen, is already well integrated into the JVP structure and has

been targeted Gayan's participation in the movement. Chandana's own status is rising

among JVP leadership due to his discipline, commitment, and uncanny ability to

market the militant cause across a broad social network.

In the camp, participants listen raptly to Wijeweera's five lectures. During

breaks they share common personal narratives about their economic struggles and the

discrimination they perceive vis-à-vis English-speaking cohorts in Colombo and

Jaffna.[225] Gayan, like his peers, resonates with Wijeweera's initial "Economic Crisis"

lecture, and after some initial misgivings, begins to accept JVP approaches to the

"Left-Wing Movement" and "Path to Sri Lankan Revolution".

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225. Based on interviews among the more than 10,000 young people arrested for suspected involvement in the 1971 JVP insurrection, Obeyesekere (1971) found a common profile of Sinhala Buddhist educated rural youth. Most interviewed were current high school students or graduates, and some 85% were educated in Sinhalese-medium rural schools. These schools emphasized the social sciences and usually lacked facilities for science and technology fields, which dominated the high status employment opportunities (Obeyesekere 1971, 376; Samaranayake 1990, 207).

Leaving the camp, Gayan returns home to no job, no wife (how could he afford to care for one?), disappointed parents, and a waiting paddy field. Continued inability to secure steady, meaningful employment eventually leads him back to his young friend, Chandana. Now appointed as leader of a local JVP cell, or "pahe community", Chandana introduces Gayan to a higher order "village committee" to help facilitate his movement induction.[226]

With growing exposure and collaboration with JVP members, Gayan takes on a more radical movement identity. He recruits several cousins to the cause and eventually participates in the planning and successful capture of a southern police station in April 1971, only to be arrested in the massive government crackdown a few weeks later. Before his capture, Gayan witnesses the brutal killings by security forces of his friend Chandana and of countless other comrades. He observes the dissolution of JVP strategic advantage, striking fear into a shaken militant identity.

While in prison, Gayan is exposed to new educational and employment opportunities now prioritized by the government in the wake of its JVP crackdown. While still wary of state authority, Gayan is nevertheless encouraged by the government's policy of "standardization" to support higher education for rural Sinhalese youth and by its decision to rename "Ceylon" with a more Sinhalese-friendly moniker of "Sri Lanka" in 1972. In time, Gayan parts ways with the JVP movement as a condition of his prison release and subsequent social reintegration.

226. See discussion of JVP clandestine operational structure in the doctoral-level research by Samaranayake (1990, 212-214). Local-level cells (known as "pahe communities") were represented in "village committees", which answered to higher order "police committees" (organized by local police station in a foreshadowing of 1971 attacks) and then "district committees". Ultimate authority and information rested with Wijeweera and the JVP's "central committee" and its "politbureau".

With Wijeweera and most other members of the "central committee" confined to prison cells, there is not much left of the group's organized leadership.

Some fifteen years later, though, when a revamped JVP movement mobilizes another round of state-challenging violence, a more comfortable Gayan finds himself and his family the targets of their attacks. Ironically, this time he is protected by the same police force that he once tried to destroy. And he is targeted for death by the same movement he joined in frustration, served in conflict, and finally left in fear and disillusionment. Gayan's story, while fictional in its specific details, resonates with many experiences communicated by surviving participants of the 1971 JVP rebellion.

<center>Model Discussion: JVP Mobilization for the 1971
Rebellion and Reflections on Gayan's Story</center>

Here and in subsequent "model discussion" sections, two types of diagrams are introduced and analyzed. First a comparative graph examines the period-specific alignment between simulated results and the reference historical data. A second type of graph then highlights the dominant "attractiveness" factors that influence model simulation across the reference period. These six multiplier factors (driven by the model's three causal mechanisms) are considered as causal hypotheses in light of the illustrative narrative and other empirical data relevant to the historical period.[227]

In this case, the two types of graphs and the analytic discussion of Gayan's narrative focus on the period from 1965-1975, a ten-year span surrounding the 1971

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227. Project comparisons require thorough analysis of the six "attractiveness" factors first introduced in Chapter 2 (figure 2-7), then developed in Chapter 3. As a review, the two factors that directly influence militant "attractiveness" for the *Groups and Identity* mechanism are "Network Contagion" and "Militant Legitimacy Factor". "Political Grievances" and "Economic Grievances" represent loop dynamics of *Grievances and (Perceived) Injustice.* Finally, the *Greed and Incentives* mechanism relies on "Government Fear" and "Militant War Booty" to influence "attractiveness".

JVP rebellion and the mass mobilization (and demobilization) of Sinhalese youth. As a period baseline, figure 4-3 offers a comparison between model results (solid lines) and reference estimates (dotted lines in figure 4-3) for the number of youth militants. In the graph, comparative estimates of initial mobilization are nearly identical until 1971. Thereafter, the reference numbers of "Sinhalese Militants" diminish far more quickly than the simulated model results, although the general pattern is quite similar.
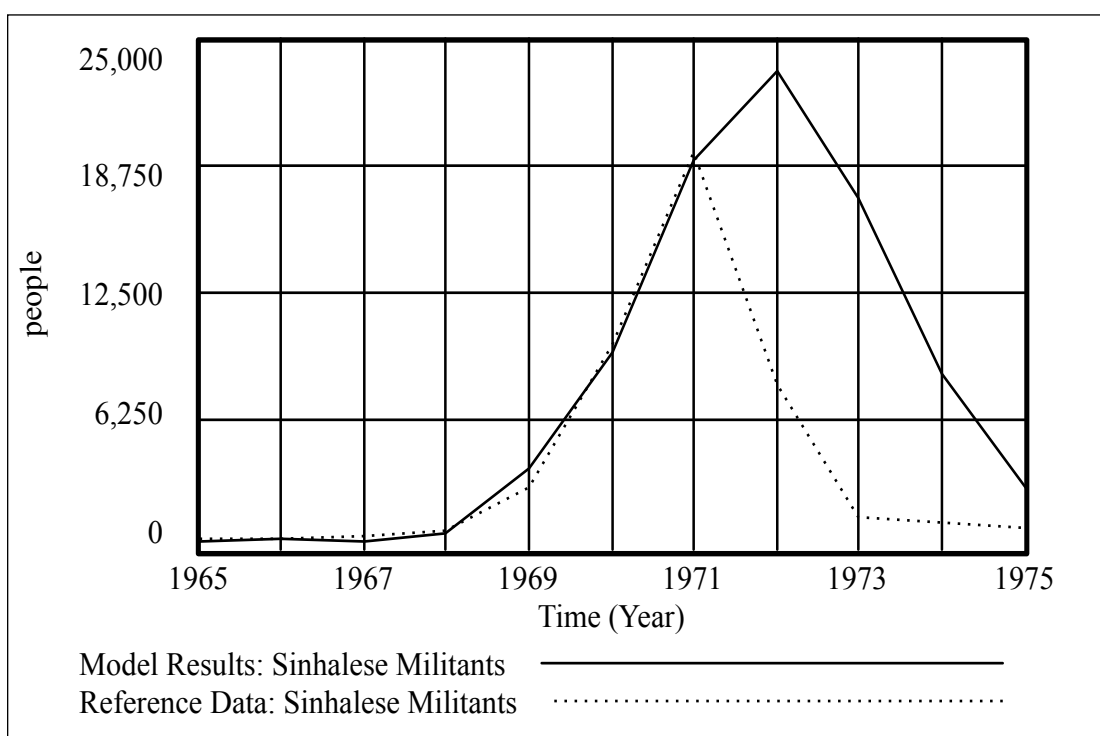
Figure 4-3. Number of Sinhalese militants, 1965-1975: Model vs. reference data.

The next two graphs (figure 4-4 and 4-5) apply causal findings of the model to Gayan's experience and consider model alignment to case empirics. They focus on "Opposition" youth and consider the cohort's relative likelihood of joining armed militancy. Figure 4-4 identifies three dominant "attractiveness" factors simulated in

the model from 1965-1971: "Economic Grievances", "Network Contagion", and (lack of) "Government Fear" are hypothesized as the primary mobilization catalysts.

Gayan's story of integrating with the JVP resonates with simulated results of the project model (shown in figure 4-4). Leading up to the 1971 rebellion, it became less and less difficult for Gayan to convince his friends and family members to join the JVP. Their armed mobilization was facilitated by contact with militants like Gayan or Chandana (growing "Network Contagion"), by the difficulty of finding a job or meeting consumption expectations (growing "Economic Grievances), and by the lack of threats feared from the state should they join an armed group (low and diminishing "Government Fear"). The modeled trajectory of each factor is shown below in figure 4-4 and then explained subsequently in more detail.
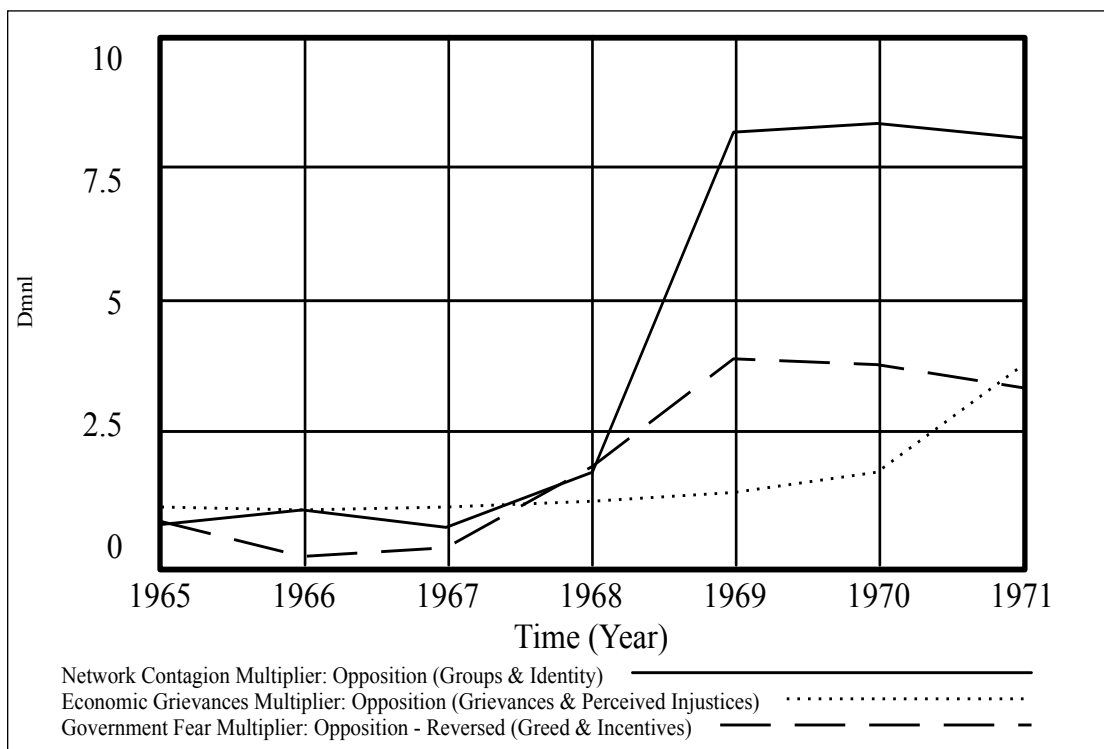
Figure 4-4. Dominant attractiveness factors for Sinhalese militant mobilization, 1965-1971.

During the late 1960s, "Network Contagion" (traced with a solid line in figure 4-4) grew exponentially for the JVP, which quickly transformed from a small-scale clique to a mass armed movement. Frustrated youth, seeking hope and support from their social networks, increasingly came in contact with militant participants. Gayan's relationship with Chandana exemplifies the iterative cycle of contact and "contagion" that characterized JVP recruitment among Sinhalese youth in the late 1960s.

Concurrently, a notable lack of "Government Fear" in this era (dashed line in figure 4-4) contributed to a supportive opportunity structure for an armed group like the JVP.[228] Insufficient and ineffective repression by the government of Sri Lanka (at the time Ceylon) failed to create adequate disincentives for radical mobilization.

Finally, in the two years leading up to the 1971 rebellion, there was a growing crisis of "Economic Grievances" (dotted line in 4-4), which almost tripled in value in the model. A stretched national economy could not keep pace with youth expectations for consumption and employment. This pattern of institutional crowding aligns with Gayan's narrative and is confirmed by other historical and economic case analysis.[229]

Overall, figure 4-4 shows that multiple mechanisms of armed mobilization influenced Gayan and fellow rural Sinhalese cohorts in this tumultuous period. Failed economic expectations (*Grievances and Perceived Injustice*) were activated against a supportive militant backdrop of radicalized social networks (*Groups and Identity)* and

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228. Index measures are supported in qualitative accounts by Samaranayake (1990; 2008).

229. Context-rich analysis has been conducted by Abeyratne (1998; 2004); Hettige (2000); Lakshman (2002); Kearney (1977); Obeyesekere (1971); and Samaranayake (1990; 2008), among others. Theoretical arguments are explored by Urdal (2004; 2006); Xenos and Kabamalan (2002), etc.

the repressive incapacity and ill preparation of security forces (*Greed and Incentives*).

The *Groups* mechanism was dominant here, followed by *Greed*, then *Grievance*.

The next model-generated diagram (Figure 4-5) treats the years just after the

1971 rebellion (1971-1976), and tracks factors that led to rapid youth demobilization

and the dissolution of the JVP (until it rose again to prominence in the mid-1980s).
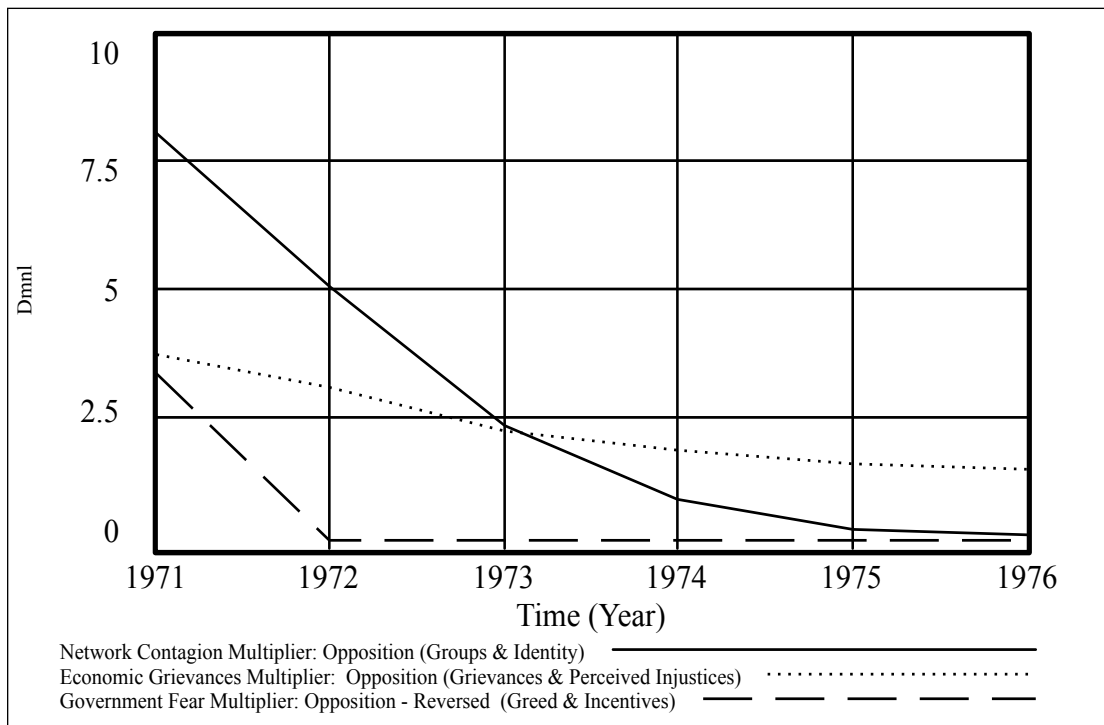
Figure 4-5. Dominant attractiveness factors for Sinhalese militant demobilization, 1971-1976.

Figure 4-5 demonstrates a monumental shift in values for the three dominant

"attractiveness" factors identified in figure 4-4, tipping the balance from militant

mobilization to rapid demobilization. From 1971, the values of "Network Contagion"

(solid line) and "Government Fear - Reversed" (dashed line) fell off considerably, complemented by a steady decrease in "Economic Grievances" (dotted line).[230]

After the 1971 rebellion, the equation changed for potential recruits and even experienced participants like Gayan. An onslaught of state repression, including the Chandana's killing by security forces and Gayan's own jailing, resulted in heightened levels of "Government Fear" (dashed line in figure 4-5). State repression also lowered "Network Contagion" dynamics (solid line). Militant contact was interrupted when JVP members were killed, imprisoned, forced underground or chose to abandon the movement.[231] Finally, youth perceptions of the economic situation slowly began to improve, diminishing "Economic Grievances" (dotted line). By the mid-1970s, Gayan was less likely to recruit new members to the JVP; moreover, he had made his own life-changing decision to withdraw and to seek an alternative JVP-free future.

Beyond Gayan's individual narrative, the model's results and "attractiveness" hypotheses find support in Sri Lanka's empirical case record. After a few weeks of a seemingly successful rebellion, the state finally responded in force. Overcoming an initial lack of preparation and repressive capacity, it leveraged the needed external support and then crushed the JVP into submission through a combination of heavy-handed repression, counterinsurgency tactics, and general amnesty policies.[232]

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230. For an idea on the magnitude of this relative shift, in 1970 the three factors' multiplied effect on militant "attractiveness" compounded the initial rate by a factor of almost one hundred (93.25). By 1974, shared impact on "attractiveness" had fallen to just 1/10 that initial rate (0.11).

231. Over the long term, heavy-handed state repression tends to contribute to "Political Grievances", but in the short term, "Government Fear" often predominates, if it is effective.

232. For discussion of state response to the JVP insurrection in realms of security, education, and other policy see Gunaratna (2001); Halladay (1971); Jupp (1978); and Samaranayake (1990); etc.

The killing and imprisonment of movement leaders (including Wijeweera) limited subsequent JVP uprisings and recruitment, serving to undermine and reverse militant mobilization.[233] In the economic realm, the JVP insurrection acted as a wake up call to the government regarding the needs and volatility of marginalized Sinhalese youth. New state policies align with subtle shifts in demographic burdens and lowered economic expectations (from previous consumption shortfalls) to help overcome potential *Grievance* effects of continued economic stagnation.[234]

In sum, the model correctly ties JVP demobilization after 1971 to the rapid growth of "Government Fear" and to concurrent decreases in "Network Contagion" and "Economic Grievance" factors. Again all three theory clusters and mechanisms identified by the project influenced JVP demobilization after 1971 (figure 4-5). Falling *Greed and Incentives* played the dominant role, with support from *Groups and Identity,* with lesser impacts from *Grievances and (Perceived) Injustice*.

What follows is a description of the rekindled JVP movement in the latter half of the 1980s, now characterized through the narrative of Sirimal, a Sinhalese youth.

<div align="center">A Narrative Account of JVP Mobilization and
Its Late 1980s Resurgence: Sirimal's Story</div>

The year is 1987 and tensions are simmering in a small village outside the southern city of Matara. Streets are abuzz regarding the impending Indo-Sri Lankan accord, which will force a peaceful resolution between the island's government and

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233. See empirical observations/ analysis by Obeyeskere (1974) and Samaranayake (1990).

234. Shifts to economic expectations are discussed generally in Richardson and Milstead (1986), and specific to the Sri Lankan (Sinhalese) context in Lakshman (1990) and Richardson (2005).

Tamil armed groups. Scattered residents praise the idea of devolution for peace, but most of the rural Sinhalese community is highly skeptical of Indian intervention.

Sirimal, a twenty-two year old student of Buddhist studies, is outraged with the accord. Drawing on discourses he has heard circulating among radical groups at his university, he believes India is to blame for the Tamil "terrorists" in the first place. And according to his uncle Mahinda, India also shares blame for the state killings of Sinhalese JVP youth back in 1971.

In a flashback, Sirimal remembers it like a dream. Today is his sixth birthday, but there is no party. A group of youth has occupied the local police station. Another image then emerges: a confident young man drops by the house to talk to his father and uncle. Sirimal overhears enough of the conversation to infer that the visitor is from the JVP. Before leaving, the man smiles at Sirimal and tells him to be proud of his *Sinhala* heritage. He seems sincere. The rest is a blur, but a series of other images collide for Sirimal. He hears the gunfire, smells the corpses, and remembers his aunt wailing for her dead son. He sees the smiling man propped up in the town center, but this time the man's eyes are blank. He remembers the words about a proud *Sinhala* heritage.

As formal signing of the Indo-Sri Lankan accord approaches, the prospects of Indian intervention represent for Sirimal a wide spectrum of his life frustrations: the disconcerting lack of job opportunities awaiting him when he graduates (because his family lacks political connections), increasing abuse of authority by local police, and a general lack of respect for a shared *Sinhala* heritage. He bemoans that no one seems

proud to defend the homeland. He appreciates what he hears from nationalist leaders like Cyril Mathew, but he sees too few results. Where, he asks, are men of action?

Sirimal then begins to voice his concerns at the university. As his critiques become more and more vociferous, political wings on campus begin to take notice. He is introduced to some serious young men who claim to be part of the proscribed JVP. They invite him to attend a few political classes. They assure him their leader, Wijeweera, is a man of action, and that they are proud and willing to die to defend their *Sinhala* heritage.

Sirimal begins to immerse himself in the JVP ideology. He likes the platform for justice and social transformation, but the primary marketing point for him remains *Sinhala* pride. He is convinced that the Indian accord will take away scarce resources from his community to patronize jobs, university seats, and welfare benefits for the Tamil "terrorists".

By the time of the JVP *hartals*, or general strikes, later in the year, Sirimal has become an integral member of the movement. The university is closed, the police are running scared, and the population seems open to movement demands... all except the "traitors". He must admit it disturbs him when he sees an assassination order for one of his boyhood neighbors, an old man with kind eyes. But the man is also stubborn, a pro-government advocate who refuses to recognize the JVP movement's legitimacy. Sirimal convinces himself there must be sacrifices for every revolution, so he does what is necessary. Still, he flinches when he sees the blank eyes propped up in the town center. For some reason he reflects on the meaning of a proud *Sinhala* heritage.

But Sirimal finds little time for reflection in subsequent months. Government security forces and paramilitary groups up the ante in attempt to silence JVP threats. Wijeweera and the movement respond with another massive recruiting campaign and brutally enforced strikes. By early 1989, Sirimal has advanced to lead a JVP cell in Matara, acting as community enforcer when needed. These definitely are not actions he imagined when he once dreamed of defending *Sinhala* pride.

Over time it is more and more difficult for Sirimal to sleep at night. Too many of his comrades have been killed along the way. There is too much blood, too much brutality, and eventually too much guilt. Sirimal is actually somewhat relieved when finally captured by government security forces. They march him to the town center, and he knows he soon will join the silent army of the blank eyes.

<div align="center">Model Discussion: JVP Mobilization
in the 1980s and Sirimal's Story</div>

As with previous model discussion, the graphs and discussion of this section refer to the historical period that was characterized in the narrative. The fifteen-year span from 1980-1995 included the resurgence of JVP rebellion, a second iteration of mass mobilization and demobilization among Sinhalese youth. Figure 4-6 provides a comparison between results of the model simulation (solid line) and estimates from the historical reference data (dash line) on the number of Sinhalese youth militants. The exact timing of mobilization and demobilization varies in figure 4-6, with model results delayed slightly from reference estimates. However, the trajectory pattern of rapid growth, then rapid decline is consistent within a healthy order of magnitude.
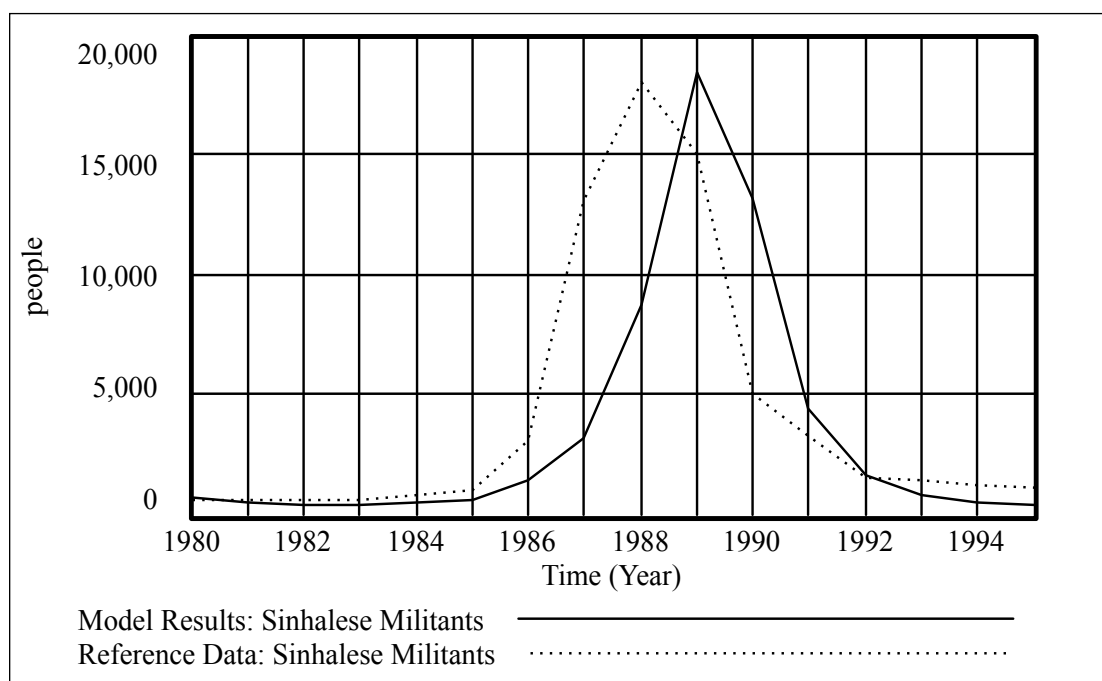
Figure 4-6. Number of Sinhalese militants, 1980-1995: Model vs. reference data.

The next two figures (figure 4-7 and figure 4-8) apply the model's findings to

Sirimal's illustrative narrative and the collective experience of his youth cohorts.[235]

Figure 4-7 identifies the four key "attractiveness" factors hypothesized in the model

to explain opposition to militant mobilization from 1980-1989: "Political Grievances"

(dashed line), "Network Contagion" (solid line), "Militant Legitimacy" (dotted line),

and "Government Fear – Reversed" (dots and dashes).[236]

The model results in figure 4-7 align well with Sirimal's illustrative narrative

and the broader empirical case record for Sinhalese youth mobilization in the 1980s.

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235. The subsequent graph (figure 4-8) follows the discussion of JVP mobilization in the late 1980s with explanation of the dominant demobilization factors from 1989-1995.

236. "Economic Grievances" is also a positive contributor to militant attractiveness. Unlike the first JVP mobilization, though, it fails to achieve dominance in this period. "Militant War Booty", meanwhile, a measure of per capita economic incentive, remains consistently negative, especially as Sinhalese militant numbers start to grow. Fundraising was not a strong priority or strength of the JVP.

Unlike the extreme dynamics that characterized the first insurrection of the JVP, its rebirth in the mid-1980s depended on greater balance among causal factors. In figure 4-7, "Political Grievances" (dashed line) and "Militant Legitimacy" (dotted line) are more pronounced at the start of the decade than "Network Contagion" (solid line) and "Government Fear – Reversed" (dots and dashes), which contributed negatively to mobilization until the mid-1980s.[237] However, by period's end, including Sirimal's initiation and avid participation, "Network Contagion" had joined with "Political Grievances" as the dominant "attractiveness" factors, replacing slow and steady growth trajectories of "Militant Legitimacy" and lack of "Government Fear".
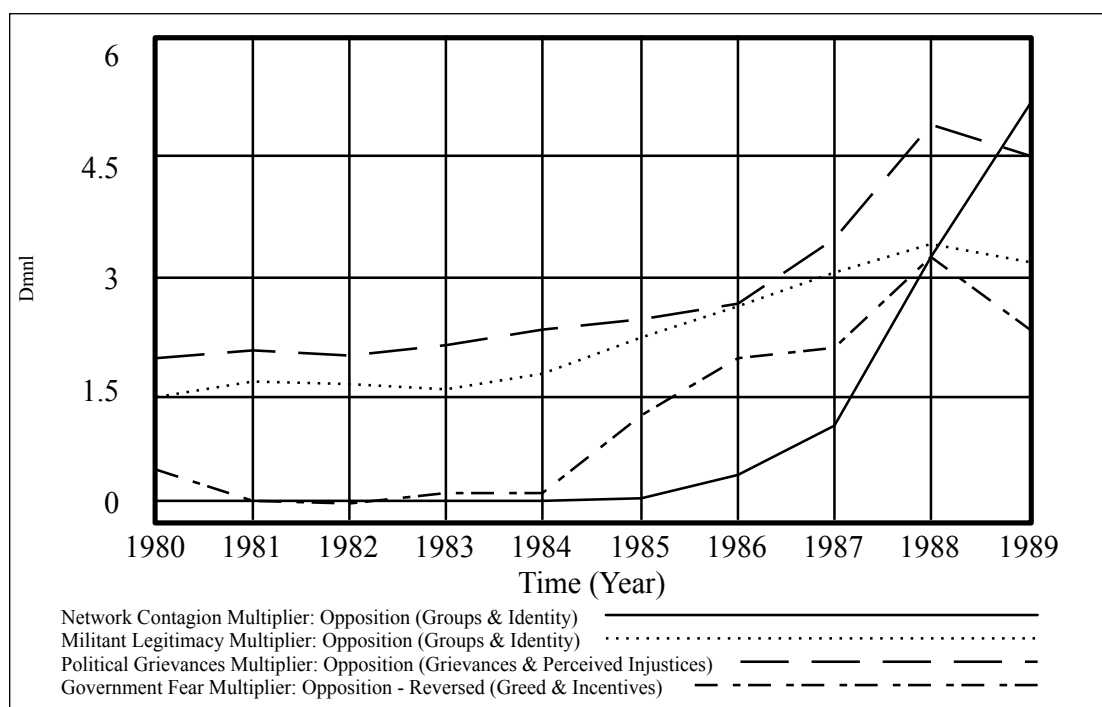
Figure 4-7. Dominant attractiveness factors for Sinhalese militant mobilization, 1980-1989.

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237. An "attractiveness" value below 1.0 contributes negatively to mobilization and facilitates inverse flows from "Militants" to "Opposition". For example a "Network Contagion" value of 0.25 in figure 4-7 makes it four times more likely for a youth to leave the armed group, given other constants.

"Political Grievances" (dashed line in figure 4-7) were crucial to Sirimal's story and emerged consistently as a mobilization factor in youth accounts shared before a post-crisis Presidential Youth Commission (Government of Sri Lanka 1990). Grievances were grounded in the relative deprivation of at-risk Sinhalese youth vis-à-vis other "favored" cohorts: relevant rivalries were especially perceived with "out-of-touch" Sinhalese elders, "foreign-sponsored" Tamil youth peers, and "corrupt" pro-government cohorts.[238]

In Sirimal's narrative, as in the model, "Militant Legitimacy" was reinforced in the 1980s by an ever-evolving culture of violence, sewn by previous experiences with brutality ("the blank eyes in the town center") meted out by state and non-state actors. "Network Contagion" emerged as a reinforcing factor in the empirical record as well, with universities and rural schools providing radicalized contacts and a well-documented breeding ground for JVP rebellion.[239] According to scholars, this second iteration of JVP armed mobilization differed greatly from the Marxist-tinged 1971 rebellion, emphasizing ethno-nationalist to economic rhetoric and leveraging recruits' Sinhalese-Buddhist identity to highlight the threats of Indo-Sri Lankan Accords.[240]

The model simulates low-level "Government Fear" during the period, which resulted in heightened militant mobilization after 1984. This aligns partially with the empirical record. The Sri Lankan government struggled with repression of the JVP in

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238. Adverse comparisons of economic opportunity (as related to key competitor groups) are complemented across the decade by falling social service provision and heightened repression.

239. See case analysis by Gunaratna (2001); Matthews (1995); and Spencer (1990) regarding the reinforcing JVP recruitment dynamics within public educational institutions in Sri Lanka.

240. See discussion of JVP ethno-nationalist mobilization by Abeyratne (2004); Gunaratna (2001); and Richardson (2005); etc.

this period, unsuccessful in attempts to "fight the insidious attacks of a hidden enemy while maintaining a semblance of normal economic activity and democratic practice" (Richardson 2005, 547).[241] Increasing lack of "Government Fear" in the mid to late 1980s did not reflect the level of repression (which actually was quite high) but rather its relative ineffectiveness, driven by poor pay for security forces and the continuation of armed violence.[242] Sirimal and JVP peers recruited at the university and enforced general strikes without much fear of government crackdowns, at least until l988.[243]

In sum, Figure 4-7 demonstrates the model's multi-mechanism explanation for armed mobilization by Sirimal (and other JVP-affiliated youth) during this period.[244] According to simulated results, *Grievances and Perceived Injustice* (more "Political" than "Economic") acted as the dominant causal mechanism until 1987. From there, *Groups and Identity* took over causal precedence, driven by exponential "Network Contagion as well as steady growth in "Militant Legitimacy". *Greed and Incentives* played a minor role overall due to conflicting factor trends: the lack of "Government Fear" (helping militants) was balanced by limited payoffs for "Militant War Booty".

The next diagram (Figure 4-8) and discussion again highlight Sirimal's JVP narrative. However, for the 1989-1995 period, the values shift noticeably for the same

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241. Problems begin in 1977 with Wijeweera's prison release, an example of ill-fated political theater to mark a break with a previous administration. A subsequent political decision in 1983 to re-proscribe the JVP also produces unforeseen consequences, driving the group underground and away from the political mainstream. Finally, when violence reaches peak levels in 1988, the government finds itself tricked into the "hoax" of negotiating with the JVP's "political wing" (Ibid: 548).

242. Gamburd (2004) and Richardson (2005) discuss shortfalls in security force capacity.

243. This reality changes early in the next historical period (from 1989), in which growing "Government Fear" facilitates rapid militant demobilization.

244. See preceding paragraphs for individual factor discussion and empirical case support.

set of "attractiveness" factors. Post-1989 dynamics were conducive to demobilization: an exponential collapse in "Network Contagion" (solid line), growth of "Government Fear" (combining dots and dashes), and then more subtle decreases to "Militant Legitimacy" (dotted line) and "Political Grievances" (dashed line in figure 4-8).
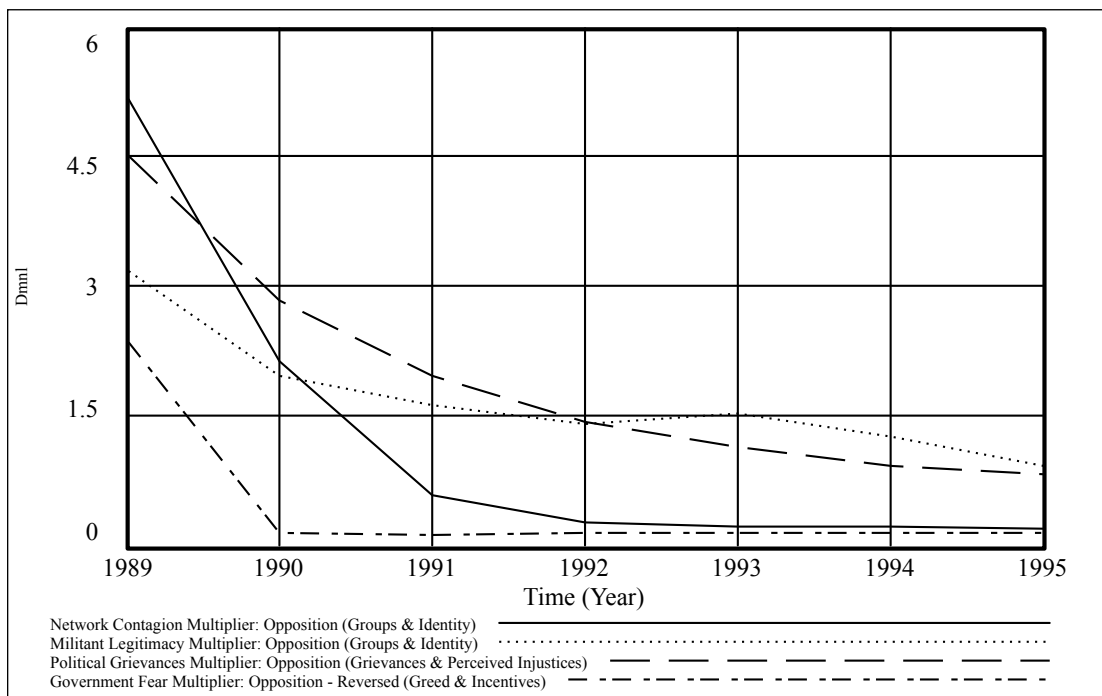
Figure 4-8. Dominant attractiveness factors for Sinhalese militant demobilization, 1989-1995.

At the close of his narrative, a captured Sirimal was approaching "permanent demobilization" by state authorities, with negative effects for "Network Contagion" (solid line in figure 4-8). This fate is emblematic for many of Sirimal's peers when the government finally declared total war on the JVP in 1989. Military intelligence sources estimated up to 20,000 deaths in this period, while exaggerated accounts by JVP sympathizers reported 70,000 casualties (Gunaratna 2001, 279). JVP "contagion" effects were limited by the heightened quantity and quality of government repression.

Explanatory power of "Government Fear" (dots and dashes) also expanded when the Sri Lankan state unleashed its full strength against the limited capacity of Sinhalese insurgency (due to insufficient capital and militant training by the JVP).[245] The capture and killing of charismatic leader Wijeweera and other officials served to eliminate the JVP as an armed political movement, at least in this era.[246]

"Militant Legitimacy" (dotted line) was undermined by the JVP's collapse and the failure of an alternative armed movement to consolidate.[247] "Political Grievances" eventually fell as heightened expectations of repression went unfulfilled and the state targeted its repressive action (avoiding the persecution of non-JVP youth). "Militant War Booty", not shown in figure 4-8, increased briefly amid defections, reflecting a growth in per capita earnings with less cohort competition.

To explain militant demobilization from 1989-1995, the *Greed and Incentives* mechanism was dominant: dramatic growth in "Government Fear" overpowered the short-term gains to "Militant War Booty". *Groups and Identity* gained explanatory power across time, due to falling "Network Contagion" and "Militant Legitimacy".

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245. In just two years, "Government Fear" rises from an inverse "attractiveness" factor of 0.3 times the initial rate in 1988 to a factor value of 8.2 times the same rate in 1990. Still, the model-simulated value for "Government Fear" remains too low for too long, with obvious effects for model result comparisons to the reference estimate of militants (figure 4-3). This "Fear" shortfall is likely caused by embedded model delays that assume slower social transformations (in general) than dictated by case-based realities of JVP demobilization. Issues with "Government Fear" may also skew relative weight for "Militant War Booty". Marginal per capita benefits of belonging to a diminished militant supply are likely overshadowed by repression-induced limitations to the financial resource pool.

246. See relevant discussion by Abeyratne (2004); Gunaratna (2001); Hettige (2010); and the organizational website of the JVP (2010).

247. "Militant Legitimacy" does not totally collapse in this period due to the continued salience of a "culture of violence".

And *Grievances and Perceived Injustice* remained in the background: "Political Grievances" grew slightly, while "Economic Grievances" stayed quite consistent.

Narrative descriptions and causal discussion now shift to the LTTE-dominated Tamil youth sector. First it explores the emergent dynamics of militant mobilization in the 1970s (Sanjeev's story), then the expansion and consolidation of insurgency after 1983 (Amirtha's story), and finally, the recent militant demobilization, including the LTTE military defeat in 2009 (Naren's story).

<div align="center">

A Narrative Account of Tamil Militant
Mobilization Before "Black July":
Sanjeev's Story

</div>

A brisk wind is blowing along the coast, paint-chipped fishing boats are out to sea, and a bustle of activity consumes the Tamil-majority city of Jaffna. The year is 1976, and Sanjeev, a seventeen-year-old from the local fisherman caste, has recently learned he will not enter university as planned due to his failure to meet the stringent admission requirements (for the much-discussed Tamil quota of university entrants). The frustrated youth blames the state's recently implemented "standardization" policy for the denial of his admission. Based on discourses of his ethno-nationalist friends and the rhetoric he encounters in the Tamil news dailies, Sanjeev is certain his place has been allocated to a "backward" Sinhalese southerner with lesser grades and lesser intellect. He is convinced that Sinhalese government officials are content to keep down young Tamils like him in order to privilege their own kind.

Sanjeev's live-in grandfather, his *Appappa*, is also disappointed with the news about his grandson's university denial, but he mainly blames Sanjeev for not studying enough to succeed. The family elder accuses Sanjeev of impatience, of failing to

appreciate the Tamil heritage of respect, hard work, and sacrifice. A long-time supporter of moderate politicians, *Appappa* blames youth radicalism, not Sinhalese prejudice, for policy failures like "standardization" and the hated *Sri Lanka* name change. *Appappa* bemoans an erosion of civic culture on the island, and tries to convince Sanjeev that the state has surrendered too much in the post-JVP era to meet the demands of "ungrateful" young radicals. According to *Appappa*, there is much to be learned from the "good old days" of British Ceylon, when solid agreements could be achieved among the respected elders from all national communities.

Sanjeev feigns agreement with his *Appappa*, but considers him far too naïve: his beloved elder fails to grasp the lessons of a changing Jaffna and changing world. Influenced by disgruntled peers and a pair of university-educated cousins, Sanjeev is increasingly convinced that Tamils must fight to guarantee their communal rights. The state responds only to demands of violence, for better or worse. For Sanjeev, that is the lesson to be learned from the JVP uprising and compelling liberation struggle in Bangladesh that he and his friends followed so closely in the newspapers.

Sanjeev has never been in trouble with the law, but after he recently expresses his frustrations to his radical cousins, they introduce him to fellow caste-mates known around Jaffna as devout Tamil nationalists. "Our boys", after some initial reticence, bring him in on their still-underground armed campaign. Sanjeev, with little hope for revamping his educational future, limited job opportunity, and not much to do in the meantime, sees a chance to be a part of something special, joining his radical peers in armed struggle on behalf of others like him.

Model Discussion: Tamil Militant Mobilization
Before "Black July" and Sanjeev's Story

Subsequent graphs and narrative analysis refer to the 1972-1983 period, which includes the emergence (but not explosion) of violent youth mobilization among the Tamil community. Figure 4-9 compares the model's results (solid line) with reference estimates (dotted line) for the number of Tamil youth militants. Starting with similar values at the beginning of the period, simulated results include a peak and decline not seen in the slow and steady growth of the reference trajectory. Still, given the limited reference data availability for early periods of militancy and the model's sensitivity to low mobilization levels, some variance is to be expected. Clues emerge in Sanjeev's story and the broader qualitative record that suggests that the model may actually be a more accurate representation and of greater utility than the current historical data.
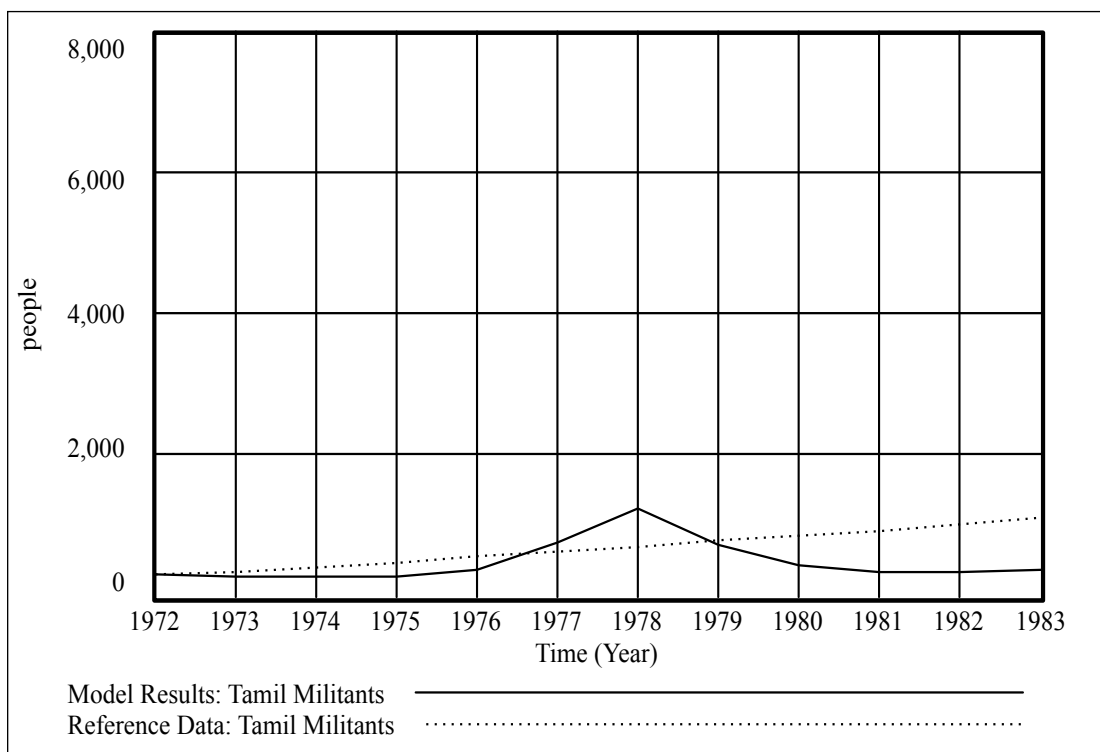
Figure 4-9. Number of Tamil militants, 1972-1983: Model vs. reference data.

Figure 4-10 identifies dominant attractiveness multipliers for Tamils' militant mobilization from 1972-1983. "Attractiveness" factors addressed in light of Sanjeev's story include "Network Contagion" (solid line), "Political Grievances" (dotted line), "Economic Grievances" (dashed line) and "Government Fear" (dashes and dots).
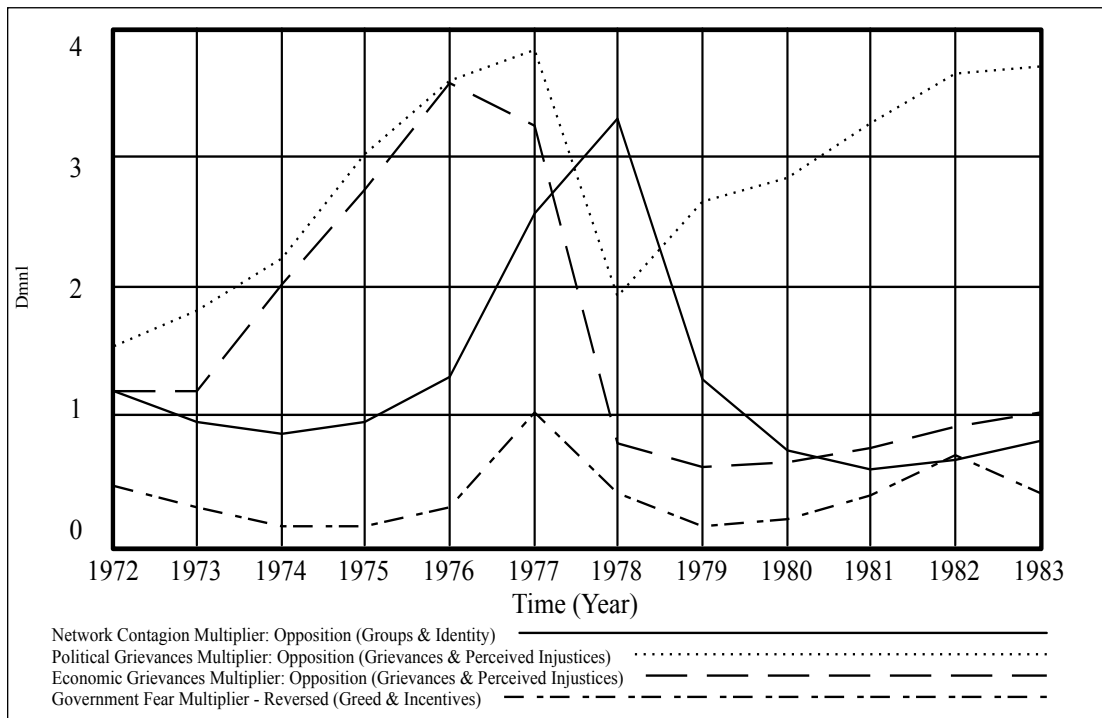
Figure 4-10. Dominant attractiveness factors for Tamil militant demobilization, 1972-1983.

The pattern modeled for "Political Grievances" (dotted line in 4-10) – its simulated increase at the start of the period, its one-year dip in the late 1970s, and its reemergence thereafter as a dominant "attractiveness" factor – aligns with Sanjeev's story and historical data for the period. Post-1972 deprivation, for example, coincided with the state "standardization" policies that, in perception and in practice, adversely

affected Tamil educational opportunity.[248] A simulated one-year reprieve of political

frustrations in the late 1970s reflected Tamil-friendly readjustments in state education

and language policy (Abeyratne 2003). And the subsequent rise thereafter reflected

twin phenomena: the failed expectations of improved state service access (vis-à-vis

Sinhalese competitors) after the yearlong honeymoon period and the growing ethnic

tensions observed by scholars in the years and months leading up to "Black July".[249]

Regarding the model-simulated behavior for "Economic Grievances" and

"Network Contagion", patterns of peak and decline likely reflected Tamil youth angst

in this period. According to Ponnambalam (1983) and Swamy (1994), Sanjeev was

not the only Jaffna young man to join the nascent militant groups based on frustration

with status quo politics and educational and economic shortfalls. And the ebb and

flow of "Government Fear" in the period was probably tied to the pre-1983 ethnic

pogroms, considered by many Tamils as repression by a "discriminatory" state.[250]

In sum, figure 4-10 again demonstrates shifting mechanism dominance in the

model across the period. *Grievances and (Perceived) Injustice* was a net contributor

to militancy, with *reinforcing* "Political" and "Economic" effects early in the period

and *balancing* effects from the latter factor thereafter. *Groups and Identity* showed a

pronounced rise and fall of "Network Contagion". And *Greed and Incentives* kept

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248. "Standardization" effects on Tamil youth grievances are discussed by Hoole et al.
(1992); Ponnambalam (1983); Richardson (2005); and Wilson (2000), among others.

249. See discussion of growing ethnic tensions by Atukrola (2002); de Silva (1998); D.
Horowitz (1985); Ponnambalam (1983); Swamy (1994); etc.

250. Anti-Tamil pogroms before "Black July" are referenced and analyzed for long-term
effects by Tambiah (1991); Richardson (2005); and Wilson (2000), among others.

mobilization dynamics in check, with cyclical peaks of "Government Fear" (inverted in figure 4-10) dragging down the causal effects of other factors at key junctures.

The next chronological account and model discussion focuses on expansion and consolidation of Tamil insurgency after 1983, told through Amirtha's story.

<div align="center">

A Narrative Account of Tamil Militant
Mobilization After "Black July": Amirtha's Story

</div>

Amirtha is an eighteen year-old young woman, born and raised in the heart of Colombo. She now is transplanted to the faraway city of Jaffna, living with distant relatives. The year is 1986, three years removed from the community-transforming and life-shattering pogrom of "Black July", which forced Amirtha to flee her home after her family was killed and their wealth and investments destroyed within hours.

Gone now are her private lessons, her tender embraces with *Appa* (father) and *Amma* (mother), her multi-ethnic friendships, and her "normal" Colombo life. These days her relations are with other refugees, those who understand her pain, anger, and sense of betrayal, especially towards former Sinhalese friends. University admission, once a guarantee for Amirtha, is not a priority. Instead she is attracted to radical actors who advocate a Tamil homeland, actors willing to serve and die to carve out a safe place to save future Tamil generations from another "Black July".

Initially Amirtha is uncomfortable with the idea of killing, but after being introduced by a fellow refugee to the most disciplined of the nationalist groups, the LTTE, she begins to see the necessity of even this sacrifice. She takes on small tasks on behalf of the group, slowly proves her commitment to the cause, takes a solemn

oath of loyalty, and is sent off to Southern India to train for combat operations (even as the LTTE continues to engage in multiparty negotiations).

With subsequent deployment of Indian Peace Keeping Forces to the sacred ground of *Tamil Eelam*, she is outraged by early reports of Indians' rape and pillage of local Tamil communities. She is angered by the Indians' collusion with Sinhalese and Tamil "traitors" committed to destroying her new family, the LTTE. Amirtha returns to the island under orders and gains battle experience defending her people, first engaging the IPKF, and after their departure, the Sinhalese security forces.

She soon is promoted in rank, recognized for her skills in battlefield strategy and leading other Tiger soldiers. She is nominated to participate in a new division of "Black Tigers", an elite unit of suicide bombers comprised of the most committed youth candidates, male or female. The "Black Tigers" strike fear into the Sinhalese government – especially the use of women in suicide attacks – and Amirtha cannot help but be proud. Eventually her time comes. Off to Colombo for her final mission, she takes time to pass through her old neighborhood and homestead, now occupied by unknowing Sinhalese families. She reflects back on her childhood, so removed from her current experience. Amirtha could not protect her family during "Black July", but with her actions today, she can strike a blow for her new family, the LTTE.

<div align="center">

Model Discussion: Tamil Militant Mobilization
After "Black July" and Amirtha's Story

</div>

This section analyzes the model results and case alignment for 1983-2002, an extended period that features the expansion and consolidation of armed Tamil youth mobilization following the "Black July" pogrom. Figure 4-11 compares model and

reference estimates of Tamil youth militants: the reference data (dotted line) climbs

faster than model results (solid line in figure 4-11) in the 1980s and peaks a bit earlier

in the 1990s. Nevertheless, in general, the two estimates trace a similar pattern across

the period with rapid growth, goal-seeking consolidation, and eventual slight decline.
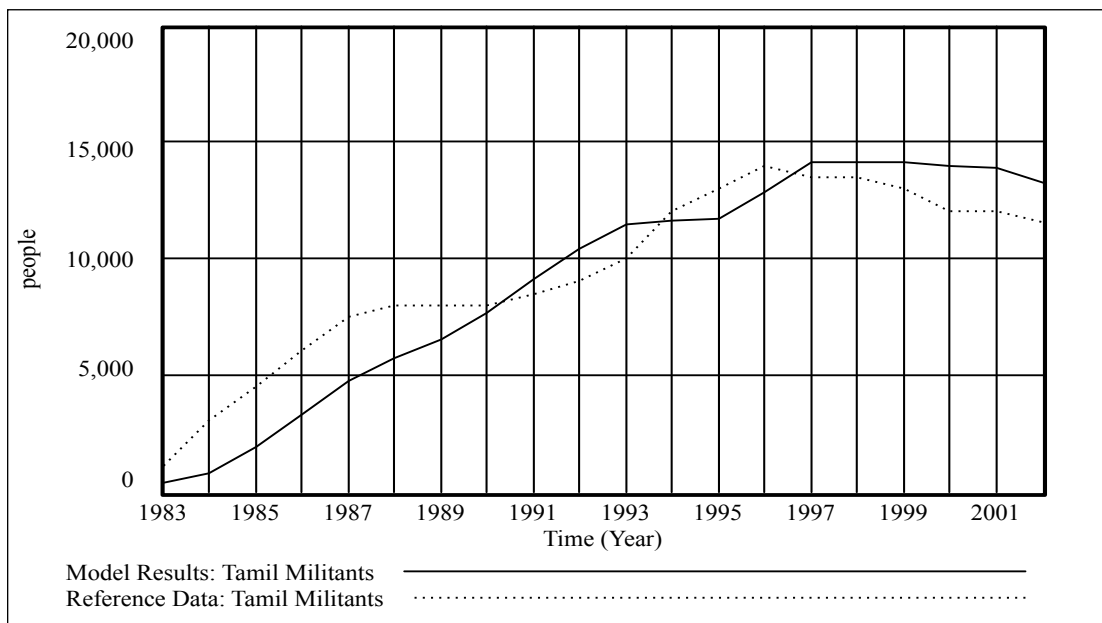
Figure 4-11. Number of Tamil militants, 1983-2002: Model vs. reference data.

Amirtha's story and supporting empirical data are well aligned with the three

primary "attractiveness" factors identified in the model (and mapped in figure 4-12)

to explain militant mobilization from 1983-2002. "Political Grievances" (dashed line

in figure 4-12) started at a higher level than other factors and maintained a dominant

role until the mid-1990s, when its influence finally dissipated. "Network Contagion"

(solid line) grew exponentially after "Black July" and then slowly trended towards

equilibrium. Finally, "Militant Legitimacy" (dotted line) expanded early, and then

maintained a fairly steady value, with small ebbs and flows throughout the period.

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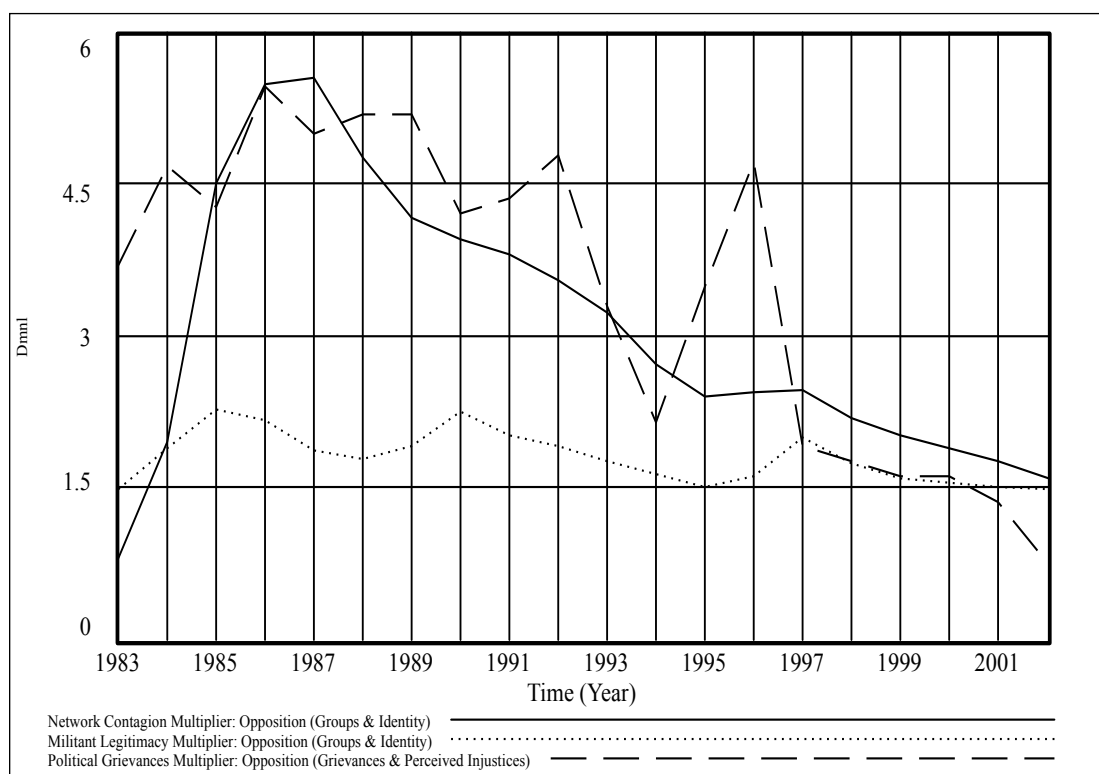
Figure 4-12. Dominant attractiveness factors for
Tamil militant mobilization, 1983-2002.

The predominance of "Political Grievances" (dashed line in figure 4-12), as

compared to other factors, emerged in Amirtha's narrative. Perceived illegitimacy of

the state regime was implicit in the bitterness she expressed and actions undertaken

against what she considered an occupying "Sinhalese" regime. These sentiments of

government resentment were common among violence-effected Tamil youth in this

period, according to an array of scholarly accounts of ethnic politics in Sri Lanka.[251]

Armed participation became increasingly "attractive" for Tamil young people after

the collective trauma of 1983: many lost trust in governing bodies, in their Sinhalese

251. See discussion of ethnic competition and government illegitimacy among Tamil youth
communities in D. Horowitz (1985); Richardson (2005); Roberts et al. (1998); Spencer (2008); Swamy
(1994); Tambiah (1991); and Wilson (2000), etc.

ethnic peers, and in the Tamil political elite.[252] It was not until the late 1990s that these expectation-based grievances finally began to stagnate, catalyzed by falling levels of violence, greater openness to negotiation, and broader access to state services in the Tamil community (with the state's "hearts and mind" campaign").[253]

The post-1983 importance of "Network Contagion" (solid line in figure 4-12) also resonated with Amirtha's narrative and the broader historical case record. In the aftermath of the "Black July" pogrom, a once diffuse Tamil community began to consolidate geographically, politically, and culturally. Displaced refugees settled in ethnically defined pockets, both inside and outside the state. This dynamic enhanced militant exposure for those populations previously familiar and relatively comfortable with Colombo-based cosmopolitism, like Amirtha.

"Militant Legitimacy" (dotted line) was the third contributor to armed group "attractiveness" over the twenty years. Tamil armed groups, which competed for market share in the early years after 1983, leveraged access to frustrated youth like Amirtha, who sought to make sense of their political, economic, and familial crises. The relative consistency shown across time in "Militant Legitimacy" resonated with the disciplined, often coercive approach of the LTTE in the Tamil community after the organization consolidated armed authority in the late 1980s.

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252. "Black July" is widely regarded as a watershed event in Sri Lanka's ethnic relations, the most serious ethnic pogrom in recent island history. See discussion of effects by Kumarakulasingam (2005); Richardson (2005); Tambiah (1992; 1996); and Wilson (2000); etc.

253. It is difficult to quantify militant recruitment and legitimacy effects of official negotiations. Talks between the government and Tamil militants took place in 1985, 1989, 1994-1995, 2001-2002, and 2002-2006, with relative outcomes analyzed by Iyer (2007) and Richardson (2005), among others.

Overall, as far as the causal mechanisms driving mobilization in this period, *Groups and Identity* outperformed *Grievances and (Perceived) Injustice* in its total contribution to militant "attractiveness".[254] Meanwhile, the *Greed and Incentives* mechanism had minimal influence, both factors hovering near equilibrium values.

After a long and drawn out struggle, the LTTE was defeated militarily (and de facto demobilized) by the Sri Lankan government's security forces in late 2009. Key dynamics contributing to this reversal – just a few years removed from their political stalemate, ceasefire, and negotiations – are highlighted in Naren's youth narrative.

A Narrative Account of LTTE Defeat and Tamil Militant Demobilization: Naren's Story

It is hot today, like most of September in the eastern *Eelam* city of Batticaloa, and the year is 2006. Just outside the city limits, a twenty year-old Tiger soldier sits to complete his assigned task: he peers into the jungle to assure there are no intruders. Naren goes about his business with quiet efficiency, but his mind cannot stop racing.

How can this be? Are they really awaiting an attack from Colonel Karuna? Naren finds it hard to believe that the legendary militant has actually abandoned the Tigers and aligned with the dreaded Sinhalese army? And Karuna's unit, how could they betray their Tamil brethren? It is difficult to believe, but LTTE intelligence says the "Karuna Faction" (the *Tamil Makkal Viduthalai Pulikal* - TMVP) has joined with the Sri Lankan army in a campaign to retake the Eastern province from the Tigers.

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254. The dominant individual factor of "Political Grievances" (*Grievances*) could not keep up with combined effects of "Network Contagion" and "Militant Legitimacy" (*Groups*).

Naren served briefly under Karuna after his initiation, and the elder Eastern leader, number two in the LTTE under Prabhakaran, seemed a genuine *Eelam* patriot who could lead ably in battle and took care of his people. Why had he left the Tigers? Was Karuna really as corrupt as LTTE leaders now claimed? Naren was familiar with the stories of other defectors, who eventually received their "just rewards" from Tiger assassins, but those defectors were known to be weak of heart. Or were they? Naren's mind begins to wander regarding his own LTTE experience.

It was difficult when Naren "joined" the LTTE six long years ago. He was a bit reticent as his family's "chosen" (coerced) representative to the *Eelam* cause, but he had served faithfully ever since. In the initial stages, he ran errands for superiors, underwent a convincing primer on the separatist cause (claimed to be "brainwashing" by external critics), and received basic weapons training. He was fearful in his first few battles and horrified by the bloodshed of his comrades, many no older than him. He remembers how his anger burned against the Sinhalese "occupiers", whose bullets robbed him of the two closest friendships he had developed since joining the LTTE.

And then came the peace. He remembers how confused he felt when his unit leader, under orders of Prabhakaran and Colonel Karuna, explained that a ceasefire agreement had been signed and the Tigers were temporarily laying down their arms. What did this mean? Could their Sinhalese enemies be trusted? Naren had his doubts. But orders were orders, and Naren's job description soon changed, as did the LTTE.

After 2003, Naren was stationed away from his home in the Eastern Province, and was sent to the north of the island to enforce LTTE taxation among Tamils there. In the wake of the recent ceasefire and the advent of high-level negotiations (which

Naren never really understood), the LTTE began to highlight its political and policing functions rather than its overt militant force. And the Tigers needed money to govern. The flow of external funds had been frozen since Al Qaeda's 2001 attacks in the US, undermined by the strategic (and unfortunate) branding of the Tigers as "international terrorists" rather than the nationalist "freedom fighters" Naren knew them to be.

Peacetime offered Naren far more access to the common people than his early experience with the Tigers, and he was surprised to find the community more fearful than proud of his service. At times he was tasked as a community enforcer, a role he liked far less than previous wartime stints battling Sinhalese enemies in the jungle. Tiger recruitment was down significantly, at least in the military sense, but the LTTE presence was ubiquitous in governance, taxation, relief and development, media, etc., at least within the Tamil-majority and Tiger-controlled territories.

News broke of Colonel Karuna's defection two years into the island peace process. It was a shock to Naren at the time, but the reality did not fully hit home until two years later, today, as he sits waiting for his former commander to attack from the nearby jungle. The turning point for Col. Karuna, whether to battle Eastern Province discrimination within the LTTE (a narrative Naren had heard from his family) or to escape LTTE prosecution for corruption (the official line of Naren's current leaders), now meant Naren would have to face off with his former comrades, now part of the "Karuna Faction", fighting alongside the hated Sri Lankan army.

Upon further reflection, he can understand perceptions of northern favoritism within the LTTE. In his tax collector duties, which kept him away from the Eastern Province at the time of Karuna-inspired defections, he often felt like a second-class

Eelam citizen. He was shocked at times with the relative largesse of northern Tamils (vis-à-vis his humble family members and countrymen in the east), especially when relief aid flowed through LTTE brokers after the devastating Tsunami of 2004.[255]

Today, though, he stands firmly with the Tigers, defending against Karuna, the TMVP, the hated Sinhalese army, and whoever else might attack from the nearby jungle. Amid his reflections, Naren sees a flash of light in the trees. He looks again, and then signals excitedly to his comrades. The battle for Batticaloa is now underway.

Three years pass and Naren's world is completely transformed. It is August again, but on this hot day, the Tigers are no more. Naren sits cross-legged in a shared tent, avoiding eye contact with the Sri Lankan soldiers walking about the ramshackle refugee camp. He prays that no one recognizes him as a former combatant. In recent months, he has taken a new identity and cut ties to the LTTE, which was decimated, along with its leader Prabhakaran, in the government's final offensive. Due to a war wound inflicted in an earlier battle, he was not there for the "massacre" at Mullaitivu, and thus far he has been successful in passing himself off as an injured civilian.

Naren again is fearful, even more than before his LTTE initiation or his first battle so long ago. He does not trust the camp workers, who he considers his captors. He does not trust the Sinhalese government to which he must pledge allegiance. He does not trust his former Tiger comrades, now consumed by internecine rivalries. And he does not trust the wandering Sinhalese soldiers, whom he still fears may recognize him. Naren's dream of *Eelam* is dead, as are his estranged family, and the movement

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255. Discussion of political and conflict-related effects of the December 2004 tsunami includes Raheem (2005, 31-34); Schell-Faucon 2005 (2005, 8-18); and Uyangoda (2005, 4-7), among others.

to which he once swore an oath to the death. Now all he has are his wounded body,

his survival instincts, and his hatred for those who have ruined his life.

<center>Model Discussion: LTTE Defeat, Tamil
Militant Demobilization, and Naren's Story</center>

Model discussion here refers to the dynamic period characterized in Naren's

narrative, explaining the demobilization of Tamil militants. Figure 4-13 compares the

results of model simulation (solid line) with reference estimates (dotted line) for the

number of Tamil youth militants. The historical reference data in figure 4-13 features

a far more dramatic collapse in the number of militants (from 2009), but the general

patterns are quite consistent: both estimates show armed demobilization to start the

period (due to the peace process), an increase in militant numbers after the permanent

rupture of the ceasefire agreement (in 2006), then a rapid decline to close the decade.

A closer look at the causal mechanisms follows, with analysis of model alignment to

Naren's narrative and the empirical case record.
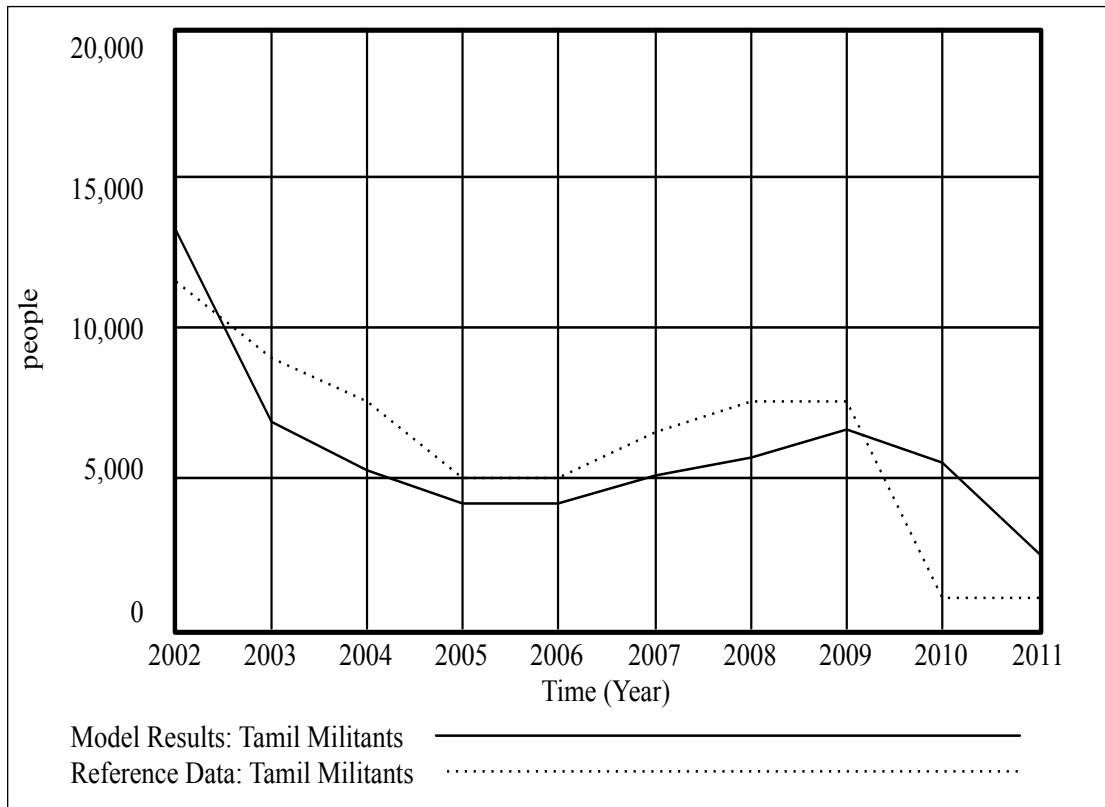
Figure 4-13. Number of Tamil militants, 2002-2010: Model vs. reference data.

The model simulation posits three dominant "attractiveness" factors, one per mechanism, to explain Tamil armed demobilization after 2002. "Government Fear" (dashed line in figure 4-14) emerged as the primary contributor, complemented by falling "Network Contagion" (solid line) and shifting effects of "Political Grievances (dotted line). Links to Naren's narrative and other empirical data are treated next.
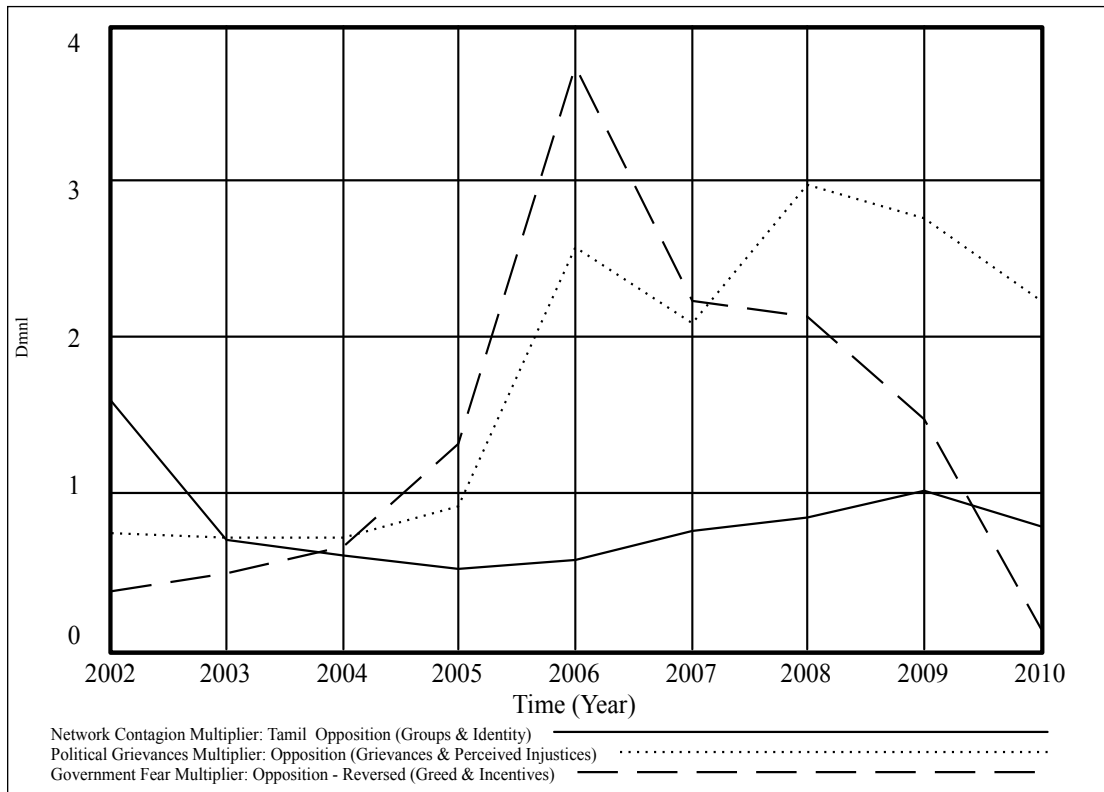
Figure 4-14. Dominant attractiveness factors for Tamil militant demobilization,
2002-2010.

"Government Fear" (with effects reversed by the dashed line in figure 4-14),

acted as a key contributor to militant dynamics in the model and in Naren's narrative,

especially during the latter years. Powered by the *Greed and Incentives* mechanism, it

explained the subtle growth trend and then subsequent collapse of militant numbers in

figure 4-13. In model simulation, "Government Fear" initially stunted mobilization;

however, a reprieve in state repression due to the extended peace process (2002-2006)

reduced the level of security force intimidation and ramped militant "attractiveness"

(based on a lack of "Fear"). This scenario is supported in the empirical case literature

(See Samaranayake 2007, 183; Sarvananthan 2005; Stokke 2006, 1027; 2007, 1199;

etc.).[256] A return to armed conflict mid-decade reignited a Tamil "Fear" disincentive,

influenced by the heightened quantity and quality of state repression (vis-à-vis a

weakened LTTE), especially in the months leading up to the Tiger defeat (in 2009).

See supporting discussion by Hettige (2010); N. Smith (2010); etc.[257] In the final year

of conflict, as the Sri Lankan security forces overpowered and defeated the LTTE, the

demobilizing effects of "Government Fear" overpowered other *balancing* factors. The

Tigers, who seemed a permanent force over previous decades, were decimated by the

government's final offensive at Mullaitivu, and mass militant demobilization ensued.

Most of the Tiger-affiliated youth, like Naren, abandoned the armed movement, while

others were killed defending the extinguishing dream of *Eelam*.[258]

Groups and Identity-based "Network Contagion" (solid line in figure 4-14)

also contributed to militant demobilization in the period. This was especially evident

during the peace process (2002-2006), then again in the wake of LTTE defeat.[259] In

the absence of conflict, militant network effects were undermined by trends of armed

demobilization. The Tigers, of course, continued recruitment and deployment during

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256. Despite their contentious scholarly approaches to analyzing the LTTE, Sarvananthan (2007) and Stokke (2006; 2007) agree that the vacuum of repression by the Sri Lankan government offered an opportunity for LTTE consolidation.

257. According to N. Smith (2010, 44), "The Sri Lankan military budget rose by 40 percent between 2005 and 2008, and the army's size increased by 70 percent, an addition of nearly 3,000 troops per month. Sri Lanka army professionalism grew as result of a decade of investment in professional military education. Increased funding and capable, aggressive leaders allowed the formation of elite counter-guerrilla units to combat the LTTE."

258. Constriction of LTTE funding (especially from external sources) limited "Militant War Booty" as youth incentive for militancy in the first decade of the 21st century, as discussed by Battle (2010); J. Becker (2006); Byman et al. (2001); Lilja (2009); and N. Smith (2010), among others.

259. The lack of a rapid drop off in "Network Contagion" after the fall of the LTTE is reflective of model results' slower collapse in militant numbers as compared to the reference data (figure 4-13).

the peace process; however, many youth participants were deployed not as armed actors fighting the state but rather as de facto governing bureaucrats, tasked with providing services and collecting taxes in Tiger-controlled territories (Stokke 2006; Lilja 2009; Watson 2008; etc.). Consider the narrative of Naren's shifting role. The peace changed the institutional priorities of the LTTE and opened the group to new governance and corruption critiques (as cited by Naren in the illustrative narrative).[260]

Moreover, it demilitarized many Tamil communities that had known only war. This exposed people to new realities and a range of non-governmental (and non-LTTE) actors, catalyzing new contacts and non-violent "contagion" effects (Orjuela 2003; Uyangoda 2002;Walton 2008; etc.).[261] LTTE attempts for militant re-engagement of the Tamil community followed, shifting their civil service recruits to armed service after 2006, but this mobilization ultimately proved unsuccessful.[262] The network and legitimacy dynamics of demobilization after LTTE defeat were comparable to earlier collapses by the armed JVP. In the narrative, Naren worked hard to avoid association with the same LTTE group he once served proudly.[263]

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260. See critiques of LTTE governance during the peace process in Battle (2010); Beardsley and McQuinn (2009); Iyer (2007); Sarvananthan (2007); and Wayland (2005); etc. According to N. Smith (2010, 43), in the wake of the 2004 tsunami in Tiger-controlled areas, "Allegations of corruption tainted the limited aid that did arrive, undermining the credibility of LTTE leaders among the people."

261. Uyangoda (2002, 4) wrote an op-ed early in the period, "Only conditions of peace, however imperfect they may actually be, could provide space as well as impetus for disenchantment, dissent, and critique that constitute the first stage of resistance to authoritarian politics."

262. According to Lilja (2009, 317), "The LTTE went from visiting schools and work places to bringing people to their offices to persuade them to at least join the LTTE civil service. By 2007–2008 constituents who had initially been recruited into civilian functions were converted into military ones."

263. Battle (2010) and N. Smith (2010), among others, review the events and the tactical and strategic errors that undermined Tiger legitimacy in the latter years before their military defeat.

"Political Grievances" (dotted line in figure 4-14) helped *reinforce* militant

demobilization early in the period, and then shifted to a *balancing* (net mobilization)

effect in the second half of the decade. During the final peace process (2002-2006),

the *Grievances and (Perceived) Injustice* mechanism contributed to subdued armed

mobilization: the economic situation improved, state repression waned, and hope for

a non-violent future began to emerge.[264] Amid renewed hostilities in 2006, "Political

Grievances" again took root, catalyzed by fierce government repression. Mobilization

effects were muted in the last years of the period, dominated by "Government Fear"

and the strategic miscalculations and organizational failures of the LTTE (discussed

in Battle 2010; Lilja 2009; N. Smith 2010; etc). In the narrative, Naren was ready to

abandon the LTTE, but he struggled to trust the Sri Lankan state in the wake of the

violence. *Grievances* continue to accumulate among Tamil youth like Naren, ready to

be leveraged by a savvy entrepreneur, violent or nonviolent, who is able to mount a

promising challenge to status quo politics in Tamil-majority areas.

The period from 2002-2010 began with a promising ceasefire accord between

the Sri Lankan government and LTTE (facilitating militant demobilization), followed

by a return to conflict (briefly increasing mobilization), and then finally a "military

solution" that capped the decade-long LTTE armed struggle (mass demobilization).

The dominant mechanism was *Greed and Incentives*, creating adverse opportunity

structures for armed mobilization, especially at the end. *Groups and Identity* played a

complementary role throughout, and *Grievances and (Perceived) Injustice* helped to

reinforce demobilization in the first half of the period, *balancing* effects thereafter.

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264. See discussion by M. Hamilton (2003); Hart (2002); Orjuela (2003); Watson (2008); etc.

Conclusion

The chapter began with a claim that it would address three research questions:

1) Is it possible for a comprehensive theoretical model to explain the general empirical patterns of growth and decline observed in the number of Sri Lankan youth who have actively participated with non-state armed groups during the last half-century?

2) What are the most salient explanatory factors or causal mechanisms that influence the "attractiveness" of youth participation with these non-state armed groups?

3) Does the explanatory value of these causal mechanisms vary across different forms of armed mobilization and distinct institutional contexts?

Figures 4-1 and 4-2 compared the simulated model results with reference data estimates of the number of Sinhalese and Tamil young people who joined with armed groups between 1960 and 2010. A notable correspondence in their values, following similar patterns of ebb and flow within an acceptable order of magnitude, showed the potential utility of the model to understand and interpret more specific case empirics.

A general introduction to the country case followed, framing the heritage of violent youth mobilization in Sri Lanka within broader sociopolitical and economic context. The remainder of the chapter relied on illustrative narratives to delve into periods of mobilization and demobilization for rival ethnic communities. Discussion of model results followed each of the narratives, testing case alignment of simulated "attractiveness" factors with available evidence from the period's empirical record.

In response to the first research question, the chapter's period-by-period case analysis shows an excellent model fit to Sri Lanka's historical record of violent youth mobilization. The applied model provides a comprehensive and systemic explanation for Sinhalese and Tamil armed mobilization over a fifty-year span.

Responding to the second research question, the chapter explores the empirical relevance of the three causal mechanisms introduced within Chapter 2 and Chapter 3. Case application and analysis of model-simulated results demonstrate that all three of the causal mechanisms - *Groups and Identity, Grievances and (Perceived) Injustice,* and *Greed and Incentives* (and six "attractiveness" factors displayed in figure 4-15) – have been crucial for the violent mobilization of Sri Lankan youth across time.[265]

Finally, in response to the third research question, this chapter tests if there is shifting explanatory value of causal mechanisms and "attractiveness" factors (shown in figure 4-15) across different time periods, ethnic cohorts, and institutional contexts. As discussed within the chapter, Sinhalese armed mobilization can best be explained by *Groups and Identity* factors for early JVP insurgency (to 1971), but dominance is replaced by *Grievances and Perceived Injustice* factors for a second iteration of JVP in the late 1980s. Overall, *Greed and Incentives* play dampening (demobilizing) roles across the fifty years. For Tamil armed mobilization, until Black July in 1983, there seems to be relative equilibrium between the *reinforcing* and *balancing* causal factors of each mechanism. For post-1983 conflict escalation by the LTTE (and other groups in the early years), "contagion"-focused *Groups and Identity* trumped the *reinforcing Grievances and (Perceived) Injustice* factors and *balancing Greed and Incentives.* Then during the demobilization and defeat of the LTTE (in 2009) after the failure of the final peace process (2002-2006), "fear"-based *Greed and Incentives* took over as

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265. The diagram in figure 4-15 displaying the three mechanisms and six causal factors of armed mobilization is introduced in Chapter 2 and replicates figure 2-7.

the most prominent causal mechanism. In sum, crucial shifts occurred across time in

the causal dominance of both Sinhalese and Tamil armed youth mobilization.[266]
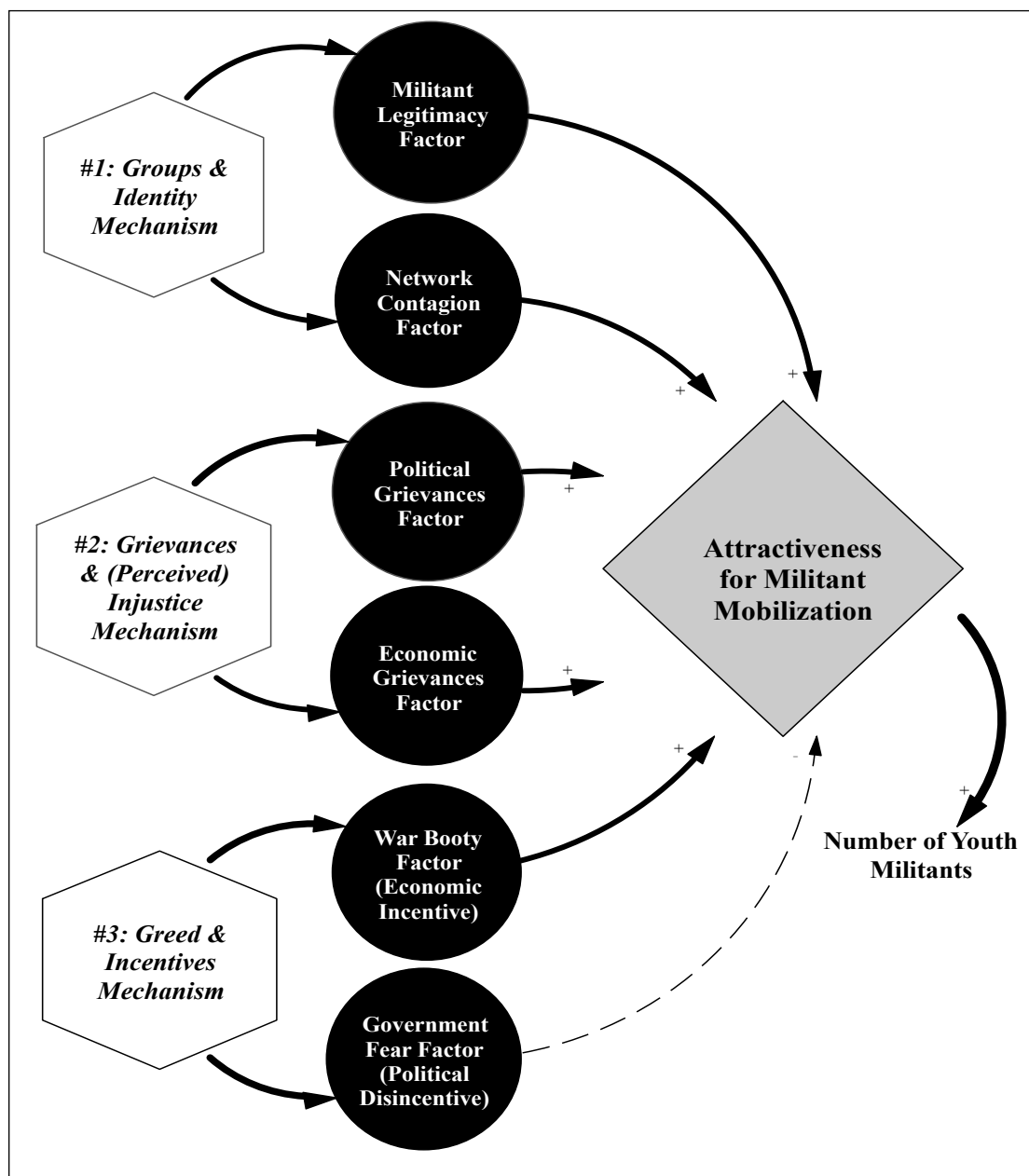
Figure 4-15. Three mechanisms and six causal factors that influence "militant attractiveness".

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266. The chapter links model, narrative, and empirical discussion on the causes of Sinhalese armed mobilization in figures 4-4 to 4-8 and Tamil armed mobilization in figures 4-10 to 4-14.

       This chapter, to conclude, demonstrates how applying and modeling a comprehensive theory for a specific country case (or dual cases) can deepen our understanding of youth mobilization dynamics. Chapter 5 offers a similar analysis applied to the case of Nicaragua. Model extensions, adaptations, and lessons learned (for this and other cases) then follow in Chapter 6.

CHAPTER 5

APPLYING THE MODEL TO THE CASE OF NICARAGUA

This chapter analyzes the causal mechanisms of violent youth mobilization in

Nicaragua over the last fifty years, from 1960-2010. The model is contextualized to

local conditions; however, its application here employs the same core structure and

"attractiveness" equations used to examine the dual community Sri Lankan case of

the previous chapter. For Nicaragua, only one national community is considered, and

its analysis stretches chronologically across three distinct instances of violent youth

mobilization. These include the revolutionary *Sandinista* mobilization of the 1970s,

the counter-revolutionary mobilization by a fragmented Resistance (*Contras*) in the

1980s, and localized neighborhood gang mobilization from the 1990s to the present.

The model's three-mechanism integrated hypotheses are tested here against a

series of empirically grounded illustrative narratives for each one of the mobilization

periods. The chapter probes the underlying factors of violent youth mobilization and

addresses three of the four research questions raised in Chapter 1:

1. Is it possible for one system-level model to explain the empirical patterns
   of growth and decline in the number of Nicaraguan youth who have
   actively participated with non-state armed groups since 1960?

2. What are the most salient explanatory factors or causal mechanisms that
   influence the "attractiveness" of youth participation with armed groups?

3. Does explanatory value of these causal mechanisms vary across different
   forms of armed mobilization and across distinct institutional contexts?

The chapter provides comprehensive explanation of armed youth mobilization across time. It contextualizes the project model to the Nicaraguan case and addresses the relevance of its three causal mechanisms and six "attractiveness" factors. Finally, it explains shifts in the relative dominance of causal mechanisms and "attractiveness" factors across time and political-economic context.

Figure 5-1 shows a pair of trend lines for young people's participation in non-state armed groups from 1960-2010, comparing simulated model calculations (shown with the solid line) with reference data estimates (dotted line). The graph provides a long-term view of armed mobilization in Nicaragua and, much like Chapter 4, offers an eyeball test of how well the simulated results fit with country case empirics.
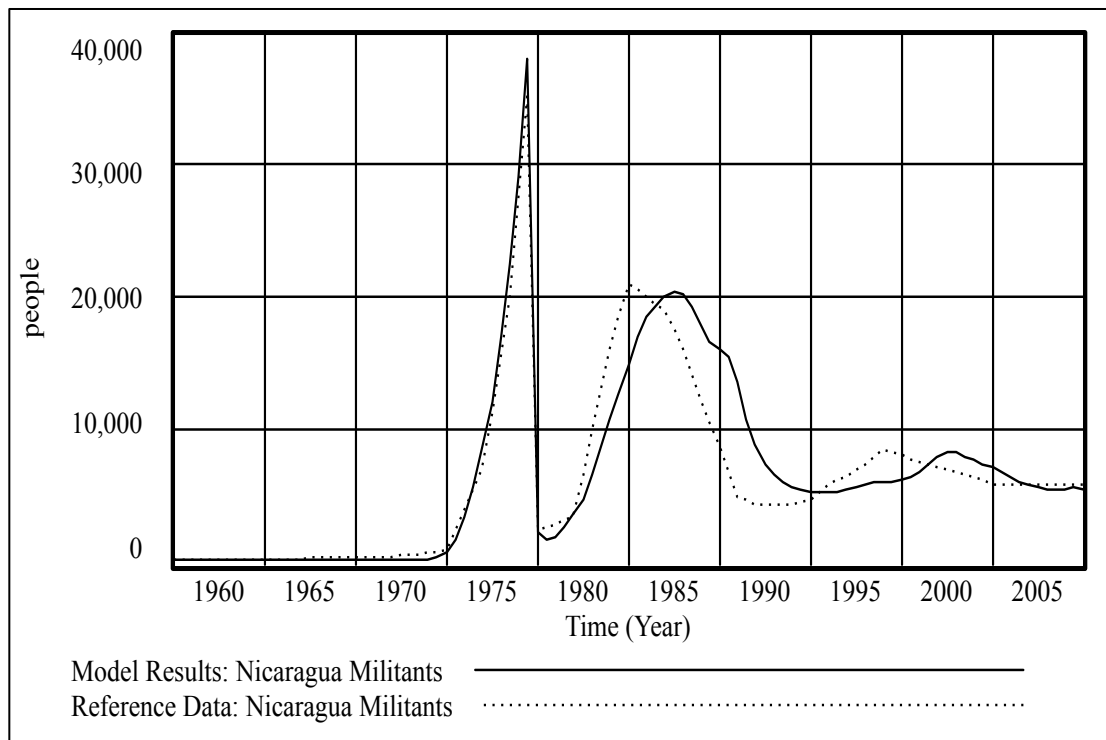
Figure 5-1. Estimates of Nicaraguan youth participants in non-state armed groups, 1960-2010: Model vs. reference data.

As with the case application for Sri Lanka, some level of variance should be expected between the model results and the reference estimates in figure 5-1.[267] The familiar words of Sterman (2000, 521) bear repeating here: "Because all models are wrong…" the project emphasis should be on utility, "on the process of testing, on the ongoing comparison of the model against all data of all types, and on the continual iteration between experiments with the virtual world of the model and experiments in the real world." In figure 5-1, the general patterns of ebb and flow are very consistent, and results fall within an acceptable order of magnitude to merit deeper case analysis and specific testing of the model's causal mechanisms to assess its overall utility.[268]

Overview of Chapter Structure

The chapter continues with an overview of Nicaragua's recent sociopolitical history. It frames the general context for armed mobilization in this small Central American country and introduces many of the relevant actors, catalyst events, and hypothesized causal factors of youth violence here.

Next, the chapter focuses attention on three specific periods of violent youth mobilization and demobilization in Nicaragua over the last half century: 1) *Sandinista* mobilization in the 1970s; 2) Resistance (*Contra*) counter-revolutionary mobilization during the 1980s; and 3) Gang mobilization from the 1990s (continuing to present). As with the previous Sri Lankan case, period-specific and individualized narratives

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267. For a highly politicized and difficult to study variable like "Number of Youth Militants", even reference estimates are not without controversy or alternative values.

268. As with Sri Lanka, the model applied to the Nicaraguan case has been subject to generally accepted "confidence building" tests for system dynamic models. See again Balderstone (1999); Forrester (1973); Forrester and Senge (1980); Radzicki and Tauheed (2009); and Zagonel and Corbet (2006) for discussion of model validation and confidence building.

are used to illustrate common youth experiences of civil violence. These illustrative narratives synthesize case insights from diverse real-life accounts in Nicaragua and help to personify mobilization dynamics for targeted historical periods.[269]

Model testing for fit and utility is the next crucial element in this chapter. This means analyzing how well the "attractiveness" factors calculated in model simulation align with the thick descriptions of Nicaraguan youth experiences from the illustrative case narratives and other empirical case data.[270] The model can be evaluated based on its capacity to synthesize relevant case insights and explain the shifting mechanisms of violent mobilization across diverse periods of Nicaragua's recent history.

The chapter, in sum, offers a brief introduction of the Nicaraguan case and then reviews linkages between illustrative narratives and modeled "attractiveness" factors for three periods of violent youth mobilization. It concludes with a general assessment of model relevance, reviews the project research questions, and examines the extent to which the project hypotheses and chapter objectives have been met.

<div align="center">Introduction of the Nicaraguan Case</div>

Nicaragua has a long heritage of foreign military intervention, from violent colonization by the Spanish to more contemporary armed incursions from the US and competing global powers. Enforcers from the US include a colonizing confederate "filibusterer" (who sought to annex his own English-speaking slave state) in the mid-

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269. As with Chapter 4, illustrative narratives are not treated as the comprehensive empirical record; however, they offer a practical, engaging means to test model hypotheses against empirical case data from diverse academic sources and disciplines. Case experts have been consulted for each account to confirm narratives' utility in analyzing youth experiences for the periods in question.

270. Case narratives are grounded by empirical data and scholarly insights for each period.

1800s, then deployed Marines in the early 1900s, and finally cash-flush advisors to
counter-revolutionary proxies in the 1980s.[271] Soviet and Cuban support to *Sandinista*
revolutionaries, first as insurgents then as an embattled national government, also
have contributed to the state's twentieth century geopolitical narrative. On a domestic
front, Nicaragua's recent history demonstrates an array of common regional visions
and experiences, including nationalist resistance, dictatorship, revolution, civil war,
political corruption, debt crisis, mass emigration, and gang violence.[272]

Nicaragua's history of violence varies greatly from the case of Sri Lanka.
Nevertheless, in Central America as in South Asia, dynamics of youth mobilization
are crucial to local, national, and regional conflict trends. The shared Latin American
legacies of imperialism, resistance, and social conflict are manifest in the embattled
historical experience of Nicaragua's youth.

During the 1980s, Nicaragua found itself at the forefront of global Cold War
geopolitics, largely due to the improbable rise to power of the revolutionary *Frente
Sandinista de Liberación Nacional* (FSLN), a group known around the world as the
Sandinistas and referred to locally as *los muchachos* ("the kids").[273] In July of 1979,

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271. US interventions are underscored by shifting strategic interests in Nicaragua. In the 19th century, emphasis was on natural resource extraction and slave state annexation (by a band of Southern confederates). Meanwhile, 20th century US interests were framed by Monroe Doctrine and Cold War security priorities.

272. Nicaraguan civil wars include colonial era Spanish-indigenous conflicts, Liberal-Conservative wars waged from post-colonial capitals of Leon and Granada, nationalist guerrilla attacks on the US Marines and domestic supporters, then violence between the Somoza National Guard and *Sandinista* guerrillas during the 1960s and 1970s and finally between the governing *Sandinista* authority and US-affiliated *Contra* guerrillas during the 1980s. See historical discussion by Baracco (2005); Booth et al. (2006); Grossman (2005); Kinzer (1991); Merrill [ed.] (1993); etc.

273. Duff and McCamant (1976, 159) classified Nicaragua as one of Latin America's "more cohesive countries" in the mid-1970s, stating of the *Sandinista* rebellion, "It is hard to see how this guerrilla force could make much headway against the populist machine politics of the Somoza clique."

attracting support from radical student and labor groups and leveraging cooperation

from a broad consortium of ideology and class-diverse dissidents, the *Sandinistas*

helped force from power the last in a series of authoritarian leaders from the infamous

Somoza family. Within a few months, a revolutionary regime with political ties to

Cuba (and the Soviet Union) consolidated under FSLN control, just as a fervently

anti-communist US President, Ronald Reagan, came to prominence in the north.[274]

The *Sandinistas*, like other leftist groups that emerged in Latin America in the

1960s and 1970s, strategically blended and deployed culturally resonant discourses of

nationalism, Marxism, and Christianity (the much-heralded "Liberation Theology") to

mobilize revolutionary action and foster critical political engagement.[275] A pair of

radical student activists, José Carlos Fonseca Amador and Tomás Borge Martínez,

founded the FSLN in the early 1960s, after their initial involvement in a few related

university groups from the 1950s.[276] The next two decades were full of strategic

setbacks for the FSLN, including the imprisonment of key leaders and the death of

Fonseca in 1976. Still, in the latter years of the 1970s, the armed movement captured

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274. Within months after the exit of Somoza, a diverse multiclass and multiparty governance coalition, which included famed widow and future President Violeta Barrios de Chamorro and businessman and future *Contra* leader Alfonso Robelo Callejas, gave way to predominate *Sandinista* control (Kinzer 1991).

275. According to Tatar (2005,178) , "Examination of the Nicaraguan insurrection… (illustrates) how communities carry out insurrections by employing a complex mixture of discourses about citizenship and community membership." See Cardenal (2003); Ramírez (1999); Stoll (2002); etc. on religion's role in *Sandinista* mobilization. See Marx (2001) as a discursive reference point.

276. Fonseca's life and the early years of *Sandinista* mobilization are well chronicled in his authoritative biography by Zimmermann (2000).

the imagination and loyalty of thousands of disillusioned young men and women in a nation of just over three million inhabitants.[277]

In an increasingly politicized and repressive environment, the FSLN "was able to broaden its popular appeal as a viable political alternative by building on a history of student political activity (Barbosa 2006, xi)."[278]As for its working class mobilization, *Sandinistas* benefitted from a national economic downturn in the late 1970s, which reversed growth trends from the 1960s. This crisis was fueled by the expanding infrastructure costs of state and militant violence as well as the adverse fiscal impacts of widening corruption in Nicaragua.[279]

The 1978 assassination of opposition leader Pedro Joaquín Chamorro, widely attributed to the regime of Anastasio Somoza Deboyle, convinced many young people that revolutionary violence was the only viable path to political regime change. The FSLN was able to harness popular discontent and take advantage of enhanced cultural openness to the militant struggle. As a result, participation in the insurrection grew

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277. Under heavy repression in the mid-1970s, the *Sandinistas* split into three major factions: the ideologically restrictive "Proletarian" and "Prolonged Popular War" factions and a more pluralist, pragmatic "Third Way (Insurrectional)" faction. In latter years of conflict, the factions reconsolidated under "Third Way" strategy and leadership. Women played key roles symbolically and operationally in the FSLN rebellion. A female revolutionary leader offers her mobilization account in Tijerino (1978).

278. Doctoral work by Barbosa (2006) draws on varied oral histories and archival documents.

279. According to Booth (1991, 60), "Where the state responded accommodatingly and with limited repression (in Costa Rica and Honduras), opposition mobilization stagnated or subsided. Where the state did not ameliorate growing inequality and employed heavy repression (in Nicaragua, El Salvador, and Guatemala), opposition mobilization and unity increased and led to a broad, rebellious challenge to regime sovereignty."

almost tenfold in the two years leading up to Somoza finally fleeing the country in mid-1979.[280]

The toppling of the Somoza regime was followed by initial attempts to create a broad coalition government, but the *Sandinistas* soon consolidated full control of the state. Early government priorities to extend education and health care services, to secure land reform, and to provide urban food subsidies were met with enthusiastic support by certain sectors of the population and skeptical resistance among others, a pattern replicated by FSLN supporters and detractors abroad. Within two years, post-insurrection peace gave way to a deepening economic crisis and a bloody civil war.

Counter-revolutionary (*Contra*) resistance fighters, many of them armed and influenced by US military advisors and their political allies in Argentina, sabotaged and challenged an inexperienced *Sandinista* governing regime that was preoccupied with maintaining its power. FSLN leaders began to rechannel national resources to the defense sector, and army ranks were filled with young, often underage soldiers.

Battles waged in the 1980s paired youth conscripts of the "Popular *Sandinista* Army" (*Ejército Popular Sandinista* – EPS) against youth recruits of the Nicaraguan Resistance (*Contras*), spilling the "blood of brothers".[281] Some fought to defend their ideals and nation, others to access financial resources, others to maintain a job…and some youth fought simply to survive.

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280. See informed discussion of *Sandinista* social network mobilization by Vanden and Prevost (1993) and Butler et al. (2005).

281. Kinzer (1991) offers an US-based journalist account. Ramírez (2001), a *Sandinista* poet and former politician (and also a Kinzer informant), blames some of the *Contras*' rapid growth on the FSLN ideological blinders. In T. Brown (2001), a retired US Marine and *Contra* liaison offers the controversial view that these rebels enjoyed strong, historic indigenous support throughout Nicaragua.

By 1990, the promise and hardships of revolution, conflict, and state-centric *Sandinista* governance yielded to new regional realities, and post-election Nicaragua experienced a relatively peaceful transition to "democratic" governance, with an explicitly free market orientation. Subsequent elected regimes across the left-right spectrum have avoided outbreaks of violent political rebellion, but each governing administration has been plagued by claims of ineffective governance and high profile corruption scandals.[282] Most of Nicaragua's post-revolutionary reforms have failed to lift the country from depths of poverty, and it remains one of the region's three least developed countries according to recent World Bank and UNDP reports.[283]

The former *Sandinista* leaders have remained as major players in Nicaragua's national and local party politics since the revolutionary government's defeat in 1990 elections.[284] Finally, in 2007 (and again in 2011), with internecine controversy among other high profile *Sandinistas*, the country elected Daniel Ortega Saavedra, the former revolutionary *Comandante* and battle-worn leader from the 1980s, as President once again. Nicaragua has faced a series of political crises in the meantime, including a nationalism-infused border dispute with Costa Rica and a constitutional showdown

282. Rodgers (2006, 326) draws on a gang metaphor: "The Nicaraguan state has similarly become a locus for parochial elite interests, who have captured the state apparatus and are promoting an exclusive social order based on the violent separation of Nicaraguan society into 'valid' and 'invalid' population groups."

283. See World Bank (2011) and UNDP (2010). A critical political analyst, Grigsby (2005), cites what he calls "terrifying" contemporary social conditions: "72 percent of the population forced to survive on less than US$2 a day, a deficit of over half a million houses, unemployment of over 40 percent, a million children left out of school, and around 1.3 million Nicaraguans forced to abandon the country to eke out an existence, at least, in Costa Rica or the United States."

284. Significant assets, valued between US$250 million and US$2 billion, were personalized by the *Sandinista* leadership before its post-election handover of power, and this controversial act known locally as *la Piñata* has helped fuel subsequent FSLN political and economic aspirations.

regarding the legality of Ortega's run for re-election. His administration has proposed a renewed vision for youth engagement, but has met mixed reviews: the programs provoke excitement from FSLN supporters and suspicion from its diverse critics.

Youth remain important to Nicaragua's political party machinery, but their involvement in violent "political" mobilization has diminished from the national and regional scene (with the exception of *Sandinista*-controlled mobs, known locally as *Turbas Divinas*, who purportedly enforce election outcomes and elicit revenge on regime critics).[285] Overall, regional scholars observe an anti-politics trend in young people's attitudes and behaviors across Central America, Mexico, and the Caribbean: at-risk youth are spending less time mobilizing around ideology and focusing instead on informal networks that connect them to transnational flows of people, goods, and services (often facilitated by gangs and other illicit organizations).[286]

In Nicaragua, the incidence of civil crime grew rapidly after cessation of war hostilities in the 1980s, including a nearly five hundred percent increase in homicides, rapes, and assaults from 1990 to 2003 (Rodgers 2004, 5). Gangs effectively began running the streets of selected neighborhoods in Managua, filling the power void left

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285 Regarding Nicaragua's apparent lack of youth political mobilization, Grigsby (2005) complains those "born after 1980, particularly those who have passed through the neoliberal-imposed education system, are profoundly apathetic, skeptical, individualist and even somewhat uprooted."

286. This evolving youth orientation demands that researchers and policymakers take a fresh look at the causes of community violence and armed mobilization, with attention to continuities and distinctions from previous periods of politically driven social conflict. Sources on Central American gang mobilization include J. Cruz [ed.] (2006); J. Cruz and Portillo Peña (1998); Guerra Vasquez (2005); Rocha (2005); Rodgers (2003; 2004; 2004; 2005; 2006); Rodgers et al. (2009); Thales and Falkenburger (2006); and USAID (2006); etc.

by weak state institutions.[287] Nicaraguan gangs, known as *pandillas*, exploded on the scene after the 1990 political transition. Demobilized and discharged teenagers from *Sandinista* and *Contra* armies sought new outlets to maintain social status and find "comradeship and solidarity" (Rodgers 2003, 7).[288] The expansion of the local drug market in Nicaragua (another outcome of the civil war of the 1980s) has helped consolidate gang influence and ramp community violence in some areas. Still, the relative scope of Nicaraguan gang involvement is small compared to perceived security threats of its regional neighbors, preoccupied with the rapid growth of transnational *Mara* mobilization.[289]

There is great need to provide hope and opportunity to Nicaraguan youth (and their Latin American peers) to help break historical cycles of violence at national and community levels.[290] Recent interviews conducted with Nicaraguan young people at home and abroad highlight a common perception that emigration, political patronage, and gang participation offer the most viable options for youth success and survival.[291] Clearly, Nicaragua needs better alternatives to be offered by concerned citizens and

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287. Rodgers (2004, 7) highlights how gangs contribute to social order: "Gangs and their violent practices can be conceived as institutionally organizing local collective life in contemporary Nicaragua…due to the chronic insecurity and declining capacities of the Nicaraguan state."

288. Nicaraguan gangs offer "surrogate families" for young people, but they also create high costs and barriers to exit, according to qualitative researchers Maclure and Sotelo (2004).

289. See *Mara* discussion by Arana (2005); Hagedorn (2008); Rocha (2006a and 2010); etc.

290. Pentecostal religious movements have been shown to dissuade gang mobilization, and sociologists of religion draw parallels with their recruitment strategies (M. Vásquez and Marquardt 2000). See also Lemire (2001) and relevant discussion by Stoll (2002).

291. Costa Rica is the favored destination for Nicaraguan emigrants, despite social and institutional discrimination (Orozco 2005 and 2008).

policymakers.[292] Controversial attempts at youth engagement are now underway in the current *Sandinista* government, and time will tell how Nicaragua handles its contemporary crises, especially as these relate to at-risk youth sectors.[293]

What follows now is a deeper exploration of the three key periods of armed youth mobilization just outlined in recent Nicaraguan history. The chapter proceeds by blending period-specific narrative insights with discussion of the dominant causal mechanisms hypothesized in the model for each historical period.

<div align="center">

A Closer Look at Armed Youth Mobilization:
Illustrative Narratives and Model Discussion

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This section shifts from a general overview of Nicaragua's recent history to a more detailed examination of key periods of armed mobilization and demobilization. As with the examination of the Sri Lankan case in the previous chapter, what follows here is a narrative description and model analysis of Nicaraguan armed mobilization over the last fifty years. Illustrative narratives, organized chronologically, bring to life the militant mobilization dynamics for three key periods: *Sandinista* mobilization in the 1970s, *Contra* mobilization in the 1980s, and local gang mobilization from the 1990s. These case-driven stories, underscored by significant empirical research, are then examined in context of simulated model results, considered period-by-period.

Revolutionary mobilization of the *Sandinistas*, recruiting disillusioned youth amid political and economic crisis, is the first of the illustrative narratives examined.

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292. This approach resonates with Maclure and Sotelo (2004, 430): "Clearly the desire for more and better education, and for work opportunities that absorb the energies of youth and bring dignity and purpose to their lives, should be the basis of concerted social action."

293. Since *Sandinista* victory in 2006, the Youth Secretariat and Ministry of Education have stressed youth employment and political participation. Critics see this as a ploy of party consolidation.

A Narrative Account of Sandinista
Mobilization in the 1970s:
Stories of Javier and Alma

Javier peddles his bicycle over Managua's rock-strewn roads, hurrying to reach the well-groomed neighborhood of his cousin, Alma. It is a hot and muggy January day, the year is 1978, and Javier sports a well-worn baseball cap to guard his eyes from the blazing sun.

Cousins Javier and Alma have always been close, the first children born of two brothers from nearby Masaya. The young cousins are the same age, having just celebrated their twentieth birthday; however, their life experiences and political paths have been very different.

Javier was forced to drop out of school due to a family crisis and has been in and out of work for several years. Since the death of his father in the city's devastating 1972 earthquake, he has taken on responsibility to help support his family. Javier usually finds employment, but like many of his peers, he often relies on odd jobs and temporary labor for a paycheck. Once a gifted student, he always expected more from his life than simply making ends meet.

For the last three months, Javier has operated within a clandestine *Sandinista* cell. There are several factors contributing to his participation in the FSLN movement: growing disgust with the government's corruption and repression, weariness of politicians' empty promises (especially to families decimated by the earthquake), and a general hopelessness for the future under the current regime.

Javier's mobilization, though, was catalyzed by two deeply personal crises: the loss of a promising job opportunity, then the tragic loss of his girlfriend. On the

job front, a new company that promised to pay him well suddenly lost its construction

contracts to what Javier heard was a shell company of the Somoza family. Then,

within days, his girlfriend, walking innocently down the street, was shot and killed

during a National Guard raid of their neighborhood, *Open Tres*, a perceived powder

keg of revolutionary resistance.[294] Thereafter, Javier saw little reason to stay on the

sidelines of armed struggle. He approached a neighbor he suspected to be a local

FSLN leader and vowed commitment to the revolutionary cause of the *Sandinistas*.

When Javier received his first assignment, he was not sent to the mountains, a

common assignment to support new recruits' tactical and weapons training. Instead

Javier received a crash course on covert intelligence and was tasked to recruit a few

targeted members of his social network. At the top of this list: Javier's cousin, Alma,

who he is going to visit on his bicycle this morning.

Alma's life in early 1978 lacks the drama and tragedy of Javier's experience,

but she still feels caught between several worlds. On her mother's side, there are

longstanding ties with the Somoza clan, and her extended family enjoys patronage to

the regime's growing financial resources.[295] On her father's side, family ties are more

humble (including cousin Javier), so their adulation of the regime is less common and

the relatives express their frustrations more freely. Still, her parents try to stay out of

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294. *Open Tres* was a refugee neighborhood originally set up in the outskirts of Managua with land designated (for a price) for those who lost their homes in the 1972 earthquake. During latter years of the anti-Somoza uprising, *Open Tres* gained notoriety among *Sandinista* supporters and enemies due to its dense networks of revolutionary fervency. For its role in Anti-Somoza struggle, the neighborhood was renamed *Ciudad Sandino* ("Sandino City"). Most youth there eventually took up arms to fight the regime and thus were especially targeted by the National Guard (Guillermoprieto 1995).

295. According to Marcus (1982, 9), the Somoza clan controlled at least $400-500 million in Nicaraguan assets by 1979, including majority holdings in economic sectors of agriculture (sugar, rice, meatpacking, etc.), fishing, construction (cement manufacture), media (television and newspapers), and transportation (steamships and airlines).

the political fray, with her father focused on his work as a chemist and her mother on her volunteerism at the local Catholic parish.

The apolitical bubble of Alma's home life is broken whenever she leaves the house to attend university classes or even participate in the local church community. These environments, among youth at least, have undergone radical transformation and growing FSLN influence.[296] Alma has sworn off violent struggle, but her political passivity has been shaken. Her daily reading of *La Prensa*, the widely distributed newspaper of Pedro Joaquín Chamorro, has helped her shed the pro-Somoza leanings of her mother's family. Alma is hopeful for political change, but she believes that the *Sandinistas* are too impatient and radical. Like her parents, a part of Alma still wants to stay above the fray, to finish her degree, marry, and raise a family. Her political faith lies in opposition leaders like Chamorro, who she believes has the capacity and charisma to lead gradual and balanced democratic change.

This morning, 10 January 1978, Alma is home alone, studying in her room. Her radio is turned off and she has ignored the phone, cutting off her contact with the outside world. When Javier finally arrives on his bike, he approaches the door and calls up to her. Alma lets him in, a bit perturbed by the interruption, and Javier asks her if she has heard the terrible news.

Alma's body slumps into a hallway chair, momentarily paralyzed by shock, as Javier shares that one of her heroes, Pedro Joaquín Chamorro, has been assassinated. When the cousins turn on the radio, death is all over the airwaves. Nothing is said of

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296. The politicization of student and religious groups is discussed by diverse interviewees of the project, by revolutionary scholars (Booth 1991; Zimmerman 2000), and by past revolutionary participants (Núñez et al. 1987; Nuñez Soto and Bourgois 1981; Ortega 1978; and Tijerino 1978).

Somoza's responsibility, but like most Nicaraguans, they read between the lines.[297]

Alma is surprised with the depth of her anger, bombarded with feelings of betrayal and desperation at the death of someone she has never met. Javier just listens, a key element of his FSLN mission.

Within hours, Alma begins to shift from passive to active opposition to the Somoza regime. Javier plants seeds for her conversion to the *Sandinista* movement, but Alma maintains her commitment to nonviolence, at least through Chamorro's funeral in Managua and the opposition-led general strike.

Only later, when Somoza's National Guard miscalculates its violent response to a commemorative mass at Monimbó (near her father's hometown of Masaya) is Alma fully primed for FSLN recruitment.[298] She is touched by Javier's account of the Monimbó residents spontaneously rising up against the Guard, holding control of the community for several days using only crude weapons (rocks, boiling water, metal scrap bazookas, and homemade pipe bombs filled with nails) until the Guard unleashes its full force, including helicopters, in what Javier deems a "massacre".

297. According to the confession of one of the arrested gunmen, responsibility for the shooting fell to Dr. Pedro Ramos, a Cuban-American businessman operating a lucrative blood plasma export business in partnership with the Somoza family (J. Henry 2005). Ramos, like Somoza, had long been a target in the editorials of Chamorro, who called him a "vampire of the poor". Other collaborators have been hypothesized for the assassination, including Somoza's son, nicknamed *El Chiguin*, who resides in Guatemala and denies involvement.

298. A spontaneous uprising in Monimbó in February 1978 was converted to a symbolic and strategic victory for the *Sandinistas*. The National Guard's decision to tear-gas a Catholic mass that was celebrating Chamorro's legacy, and then the Guard's brutal response to the people's subsequent uprising, undermined remaining public support in many Nicaraguan communities (Grossman 2005; Instituto de Estudio del Sandinismo 1982; Kagan 1996; Kinzer 1991; Ortega 1978; and Tatar 2005).

After learning of Monimbó (both the resistance and state repression) Alma is finally ready to join the armed struggle.[299]

Javier initiates her to the local cell and shares the movement's plan for her involvement: to leverage her family connections for counterintelligence on Somoza's strategic infrastructure. Her information leads to the *Sandinista's* recovery of several weapons caches and, more importantly, confirms key logistics data crucial to the high profile takeover of the National Palace.

Eventually, Alma and Javier are compromised and forced underground, where they take on new roles to support the insurgency. They are tasked to support planned September uprisings in Monimbó and Managua, to be carried out concurrently with companion revolts in Northern sites of Estelí, Chinandega, Chichigalpa, and León.[300]

In less than a year, the cousins' lives have changed dramatically, full of new passions, priorities, and commitments.[301] Not long ago, Javier was content working a construction job and looking forward to seeing his girlfriend in his spare time. Alma was studying at university and attending church retreats when not at home with her parents. Now they are armed revolutionaries.

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299. A *Sandinista* commander hailed the Monimbó uprising as "a form of illegal combat, of the masses… which later would be taken up by young people, the elderly and children, in all the cities of the nation (Núñez et al. 1987, 22)". Reed (2004, 684) classifies the mid-February uprising as a type of spontaneous "contingent accelerator" crucial to the subsequent success of FSLN armed revolution.

300. Reed (2004, 685) classifies the early September 2008 uprisings as "planned accelerators", which the FSLN used to foment "the perception that the state's hold on society was vulnerable and capable of being surmounted by righteous insurgents."

301. According to Zimmerman (2000, 222), "It looked more and more as if there were only two sides in Nicaragua – the FSLN and the increasingly *Sandinista* masses on one, and Somoza and the National Guard on the other."

In July 1979, Javier and Alma roll into Managua's Plaza of the Republic (known thereafter as Plaza of the Revolution), riding one of many *Sandinista* tanks occupying the square. Somoza has fled the country, the Guard has surrendered, and celebration is in the air.

Model Discussion: Sandinista Mobilization in
the 1970s and Reflections on the
Stories of Javier and Alma

As in model discussion sections of the previous chapter, two primary types of diagrams are introduced and analyzed to complement the case narrative of Javier and Alma. First, a comparative graph examines period-specific alignment between model results and reference historical data. Then a second style of graph identifies specific factors hypothesized to explain the "attractiveness" of armed mobilization for a given period and narrative description. These six potential factors, which represent the inner workings and loop dynamics of the model's three main causal mechanisms, are now reviewed visually in figure 5-2.
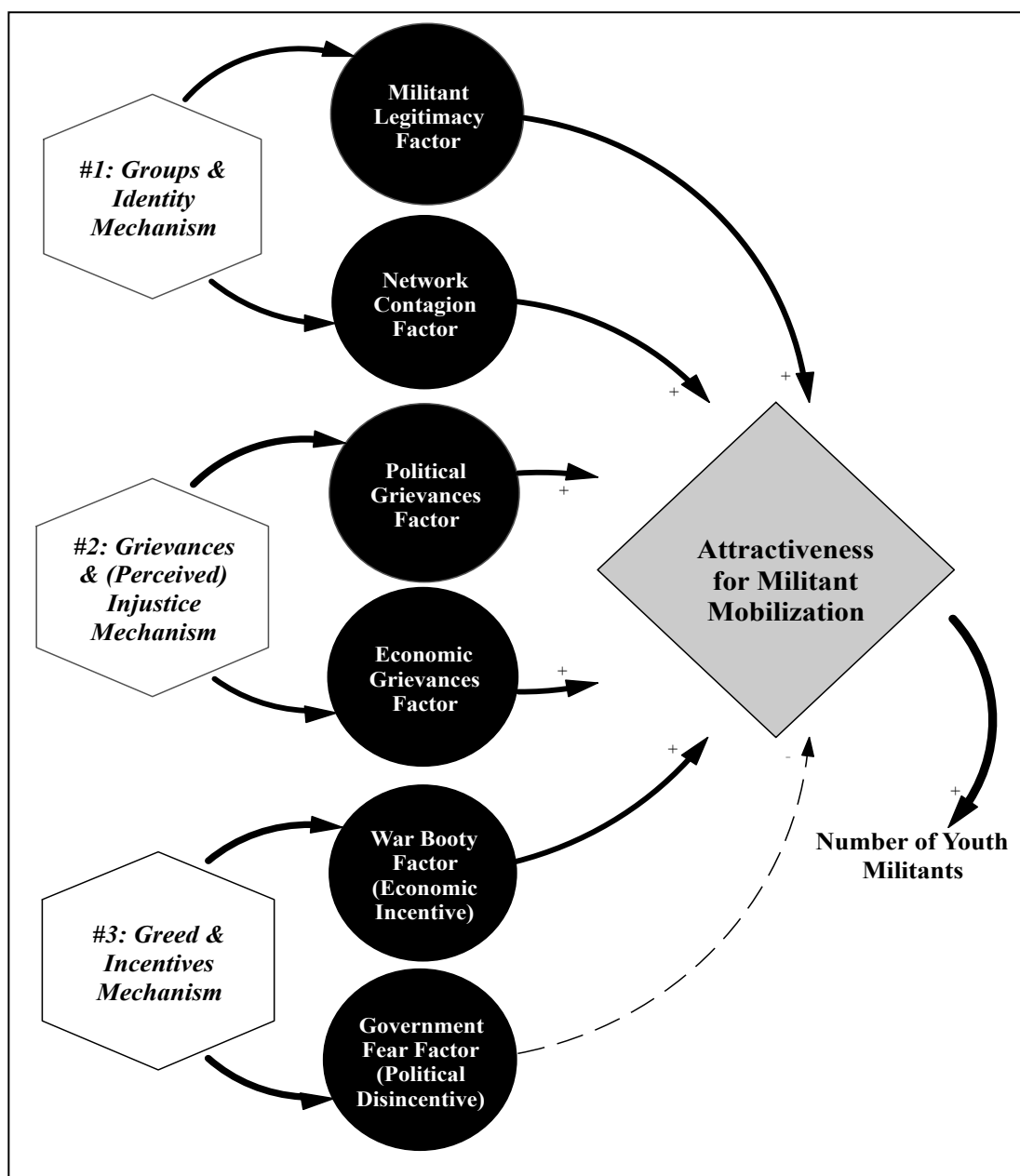
Figure 5-2. Three mechanisms and six causal factors that influence "militant attractiveness".

The causal factors (and "parent" mechanisms) in figure 5-2 are examined in

light of illustrative narratives and other empirical data for specified periods. In this

case, the narrative-relevant model discussion highlights the period from 1969-1979.

Figure 5-3 compares model results with historical estimates for the number of armed youth militants, like Javier and Alma, who mobilized over a ten-year period in Nicaragua. The graph demonstrates a close correspondence between simulated model results (solid line) and exponential growth estimates from reference data (dotted line). Therefore, it may be useful to consider a closer look at the model's case alignment.
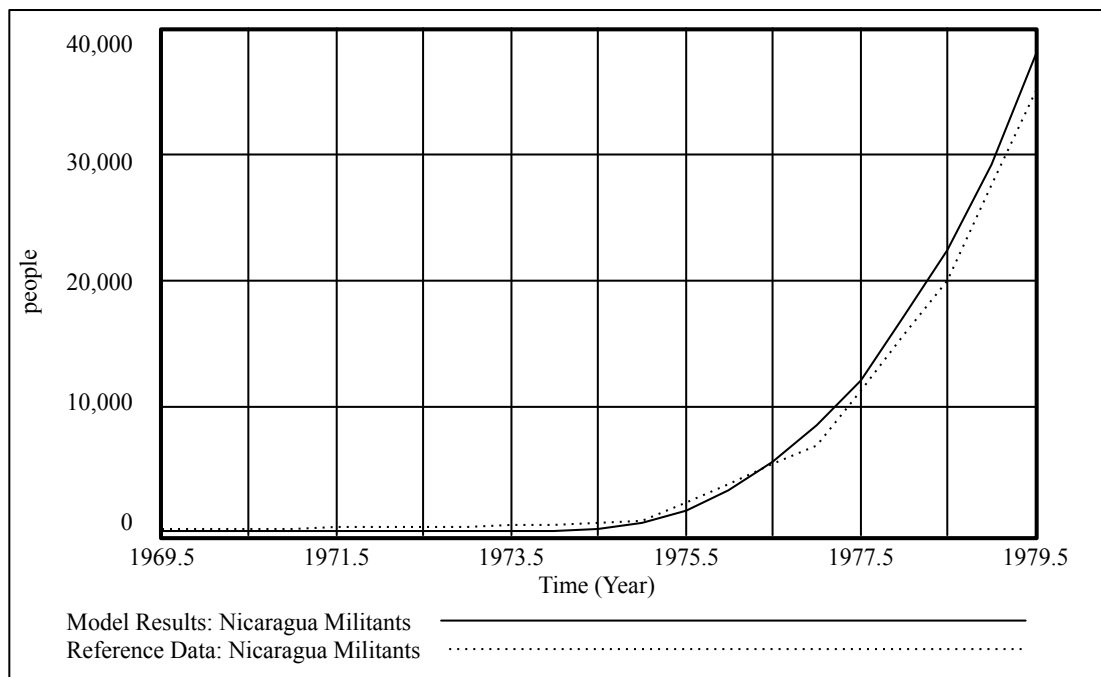
Figure 5-3. Number of Nicaraguan militants, 1969-1979: Model vs. reference data.

The next two graphs (figures 5-4 and 5-5) posit both dominant and secondary "attractiveness" factors from model simulation to explain *Sandinista* mobilization from 1969 to 1979. Results focus on "Opposition" youth like Javier and Alma, and measure the relative likelihood ("attractiveness") and the probable reasons (causal factors) for their decisions to join with armed "Militants".

Figure 5-4 shows the exponential growth trajectories of three "attractiveness" factors hypothesized to dominate the period. Two factors draw from the *Grievance &*

(Perceived) Injustice mechanism: growing "Political Grievances" (solid line) and

"Economic Grievances" (dotted line). The other factor, diminishing "Government

Fear" (dashed line), reflects internal dynamics of the *Greed & Incentives* mechanism.

Continuing model discussion examines how these factors in figure 5-4 relate to the

stories of Javier and Alma and empirical data on armed mobilization in the 1970s.[302]
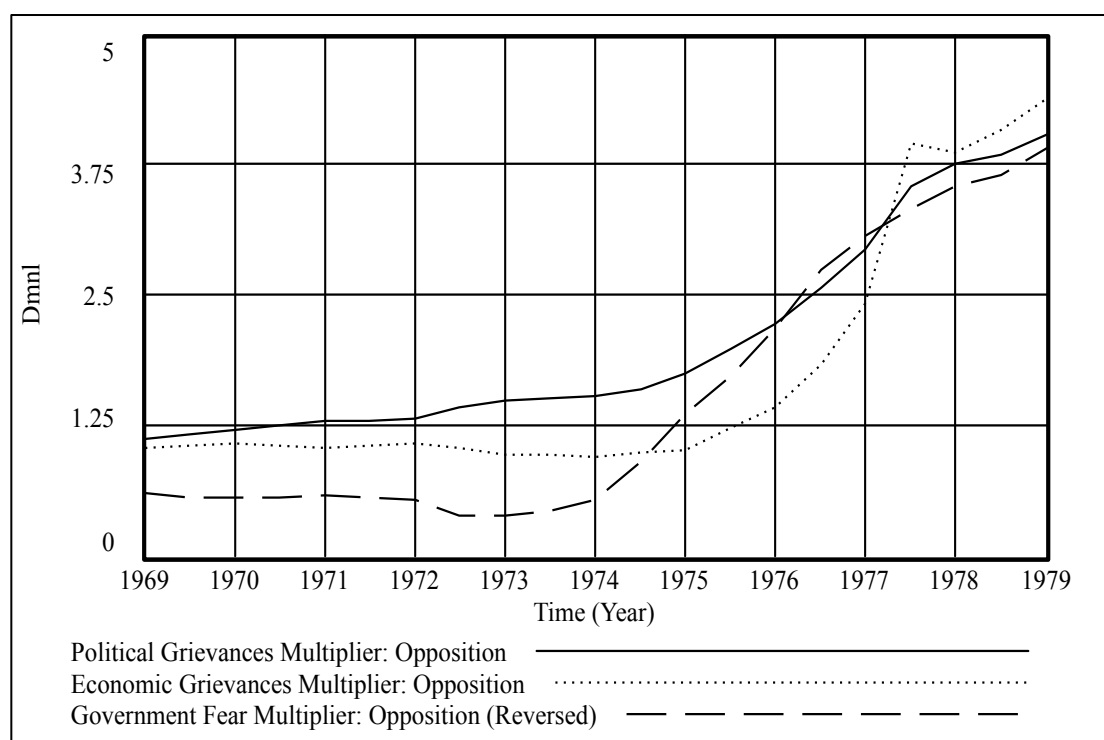
Figure 5-4. Dominant attractiveness factors for Nicaraguan militant mobilization, 1969-1979.

In the model's results and illustrative narrative of Javier and Alma, "Political

Grievances" (solid line in figure 5-4) expanded rapidly from the mid-1970s and grew

until the period's end. A catalyst was the 1972 Managua earthquake, which claimed

302. By 1979, these three factors' multiplied effect augments the 1979 flows from "Opposition Youth" to "Militant Youth" by more than sixty times the initial "attractiveness" rate (1960) and at least seventy times the rate at the start of the period (1969).

the life of Javier's father. The disaster initiated a downward trajectory for government

legitimacy due to the widespread perceived corruption by the Somoza regime in its

aftermath.[303] A core group of committed *Sandinista* militants (alongside mainstream

opposition leaders) seized on legitimacy fissures. They launched symbolic attacks on

the regime and allied industries to disrupt the country's political and economic status

quo. The lack of targeting and discipline in the National Guard's repressive response

(exemplified at Monimbó within the case narrative) increased political dissonance.

This broadened the "Political Grievance" scope to include even elites like Alma.[304]

The modeled effects of "Economic Grievances" (dotted line in figure 5-4) also

resonate with the illustrative case narrative, growing exponentially in the late 1970s.

The increasing corruption of the governing regime and targeted militant interruptions

to Nicaragua's economic production combined to constrict the opportunities of at-risk

youth sectors. Consider Javier's frustration after losing his well-earned construction

job to Somoza-style cronyism. By 1978, most of the country had been consumed by a

politically inspired economic crisis, mired in a rapid reversal of earlier expansion.[305]

The job and income expectations of youth like Javier went unfulfilled, leaving them

more open to alternative (that is "militant") options.

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303. See discussion of post-earthquake corruption and its adverse legitimacy effects in Duff and McCammant (1976, 159). Booth (1991, 44) claims that the post-disaster graft by Somoza's economic faction meant the "backing among the upper classes began to break down during the mid-1970s… arresting the development of a unified bourgeoisie."

304. According to Vila (1986, 112-113), "The arbitrariness of the exercise of political-military power by the dictatorship, the indiscriminate – and finally, genocidal – character of the repression, was felt in a more direct and generalized way among the popular classes." However, this lack of state targeting in its repression broadened the FSLN demographic profile: initial representation by students and the underemployed in time expanded to include socially conscious elites like Alma.

305. P. Ryan (2000, 197) resists the narrative of economic collapse as the primary structural condition of revolution in Nicaragua, citing it more as "collateral damage" of organized resistance.

Regarding the falling levels of "Government Fear" observed in model results (inverted dashed line in figure 5-4), it claims that diminishing quality of government repression overpowered its growing quantity in Nicaragua. The model results again correspond to the illustrative narrative of Javier and Alma and other empirical data. Somoza's National Guard proved ill equipped and under-staffed to maintain respect for authority amid growing pockets of discontent and militancy. Security forces loyal to Somoza first undermined the regime's legitimacy through heavy-handed repressive actions; but they also failed to inspire needed "fear" and respect due to inaction at key junctures and their relative lack of effectiveness vis-à-vis a widening social revolt.[306] In the illustrative narrative, state security's failed response to popular insurrection at Monimbó was crucial in inspiring Alma's incorporation into the *Sandinistas*. She and other recruits were influenced not only by the National Guard's brutality (inflaming "Political Grievances"), but also its seeming incapacity (lack of "Government Fear") in the face of challenge and its lack of targeting in attacks. Ultimately, there was little incentive for young people not to rebel: if the Guard was going to attack blindly and brutally based on age, class, and neighborhood status (a broadly-held perception), youth were better served and often safer as part of an armed insurgent group.

Of course, the three factors in figure 5-4 ("Political Grievances", "Economic Grievances", and "Government Fear") were not the only contributors to militant "attractiveness" in the 1970s. At least two secondary factors (treated in figure 5-5) responded to their catalyzing effects and grew accordingly, albeit at lower levels:

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306. Repressive shortfalls of the National Guard and its effects for FSLN strategic success have been discussed by Brockett (2005); Grossman (2005); and T. Walker (2000), among others.

"Network Contagion" (solid line) depended on continued growth in militant numbers, as did "Militant Legitimacy", which also benefitted from falling state legitimacy and enhanced militant violence.
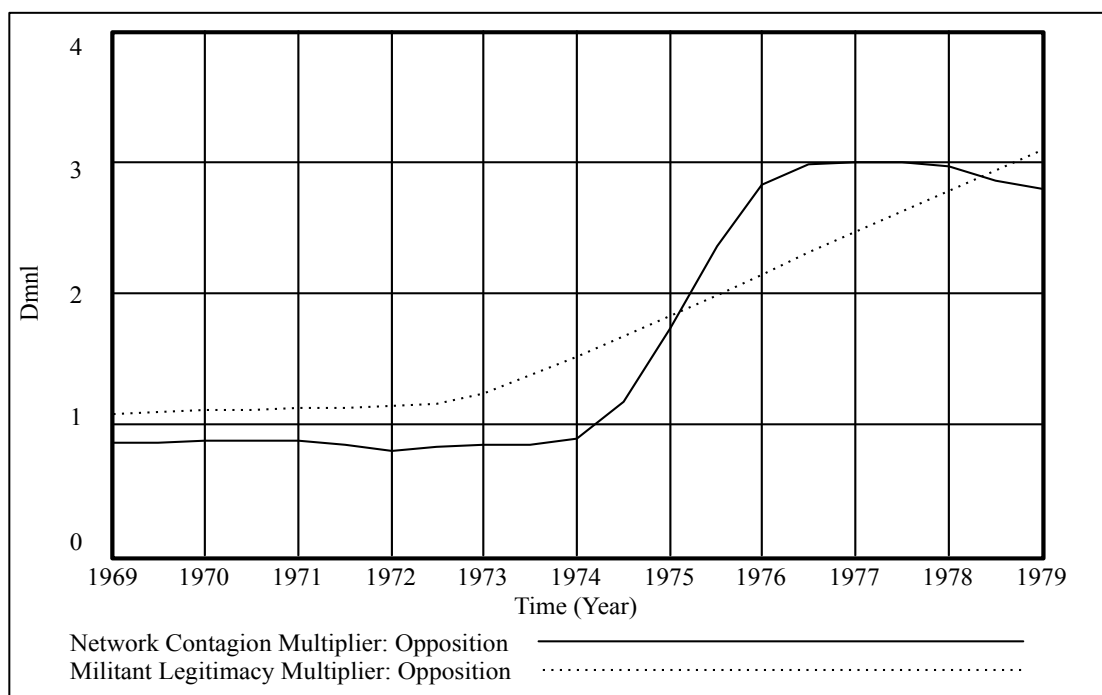
Figure 5-5. Secondary attractiveness factors for Nicaraguan militant mobilization, 1969-1979.

For "Network Contagion" (the solid line in figure 5-5), young people's increased contact with armed actors contributed to a self-reinforcing effect in the latter half of the decade, encouraging armed recruitment based on social network pressures.[307] This was demonstrated in the case narrative: Javier's knowledge and exposure to the FSLN was cultivated within his radicalized neighborhood, whereas

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307. The S-shaped growth pattern reflects a new equilibrium with falling diffusion effects over time. See related discussion of market growth dynamics in Bass (1969); Sterman (2000); etc.

Alma was implicitly tied to the *Sandinistas* (before her incorporation) through her cousin Javier.

"Militant Legitimacy" (dotted line in figure 5-5) also contributed solid growth to "attractiveness" across the period due to falling levels of the regime's legitimacy and increased militant violence.[308] In the well-aligned case narrative, the decisions of Javier and then Alma to join the *Sandinistas* was facilitated when their frustrations with the political status quo (and their hope for an alternative future) was channeled strategically by an armed movement deemed "legitimate" in their community.

In sum, the model's hypothesized causal factors (delineated in figures 5-4 and 5-5 and explained subsequently) resonate well with the illustrative narrative offered for *Sandinista* mobilization and align with the broader historical case record. In the 1970s, *Grievances* trumped the other two causal mechanisms for explanatory power, although *Groups*-based network effects and *Greed*-based lack of fear also played important complementary mobilization roles amid a growing armed challenge.

Returning to the narrative of Javier and Alma, July 1979 symbolized a new era: no more Somoza, no more National Guard, and an emergent revolutionary hope. The *Sandinistas* quickly consolidated power within the subsequent governing regime and began to implement a series of sociopolitical and economic reforms, which were readily embraced by supporters and actively resisted by growing regime opponents.[309] The next illustrative case narrative relates the story of Hector (and to a lesser extent José) for relevant insights on *Contra* mobilization in the post-Somoza era.

308. Both contributing dynamics are influenced by a growing number of militants in this era.

309. See Booth (1991); Theissen-Reily (2008); T. Walker (2000); and Wright (1991), among others, regarding the challenging dynamics of revolutionary regime change in Nicaragua after Somoza.

A Narrative Account of Resistance/ *Contra*
Mobilization in the 1980s: Hector's Story

It is January 1984. A grizzled *Contra* fighter sits just inside the bullet-pocked doorway, drinking a glass of cold water as a fearful woman tends to his wounds. The widow's eighteen year-old nephew, Hector, hides in the next room, weighing whether he should join the armed Resistance. As he waits alone in silence, he is overcome by a barrage of memories from the last half-decade.

He remembers when scruffy *Sandinista* militants first launched attacks in his rural town near Chontales and the thrilling sensation of seeing his small community drawn into the same revolutionary struggle as faraway Monimbó, Managua and Estelí. There was the rapid response of the National Guard, dragging his neighbors and family friends from their homes, many of them never to return. And who can forget the radio broadcast declaring *Sandinista* victory, the celebrated fall of Somoza, and the emergence of a new Nicaragua?

He remembers his parents' skepticism in the early days, juxtaposed against the hope-filled teenagers now returning home, battle scarred and dressed in FSLN colors. The town was consumed by revolutionary fervor and nervous tension, which he now understands as a local power struggle inherent to the revolutionary transition.

He remembers the situation a few months later, his neighbors basking in the glory of the revolution and claiming that everything was changing for the better. The violence had subsided and state repression was less overt. Better education and health services were on the way, and state price controls were promised to make everyday goods more affordable to the common people.

He remembers the grave concerns his parents expressed in the privacy of their home. His father critiqued the marginalization of political moderates and the Marxist tinge of the *Sandinistas'* education and land reforms. Hector's mother worried about religious questions and was convinced that "liberation theology" would undermine their traditional Catholic faith. Both parents disdained price fixing by the state, which they believed would undercut their family's agricultural profits. The couple kept their critiques private, though, and asked young Hector to do the same due to their distrust of the new block governors known as the *Sandinista* Defense Committees (CDSs).[310]

Hector remembers when he heard rumors of the first anti-regime uprisings. Most of his neighbors praised the efforts of the new *Sandinista* Popular Army (EPS) and *Sandinista* Police in eliminating the perpetrators, suspected to be former National Guardsmen. The CDS responded with a promise to step up its community watch role as a stalwart against community-embedded "traitors". Hector's parents remained cynical, and he wondered at the time whether they were heroes or traitors.

He remembers when the townspeople's attitudes began to change. Falling agricultural prices depressed the economy around Chontales, and community complaints followed soon thereafter. Revolutionary romanticism was replaced with frustration over people's falling income. Hector never understood the economic principles, but he definitely perceived a shift in people's trust of the government. Government broadcasts and local CDS leaders preached continued loyalty to the cause, but a change was in the air: insurgents now were attacking government

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310. According to Valenta and Valenta (1987, 19), at least 500,000 CDS members were organized block-by-block in major cities to provide a grassroots structure for population oversight.

installations and calling for regime change, their attacks fanning through the entire country, even near Chontales.

He remembers the aggressive public speeches of national leaders, blaming the economic and political crises on the ex-Guardsmen "traitors" and their imperialist "Yankee" (US) patrons. Top officials soberly discussed threats of an impending US land invasion, which would seek a reversal of the popular revolution and reinstall a puppet Somoza-like regime. Then came the news that forever would change Hector's life: the *Sandinista* governing regime had decided to initiate compulsory military service for Nicaragua's youth to help fight the "traitors" threatening the revolution.

He remembers his parents' dismay upon learning of the new military service law. His mother's tears flowed and father's face tightened when they failed to secure a waiver for their son. Eventually they shared their emergency exit plan for Hector.

He remembers their last embrace and prayer together before he was sent away under the cover of night. Hector was expected to stay in the mountains with a distant aunt and uncle, as far as possible from local authorities. He undertook the long trek across rugged, unfamiliar territory, feeling lonely apart from his family, friends, and hometown. Hector's extended family was warm and inviting, though, and within days he finally began to feel a sense of normalcy.

He remembers the horrible day that the normalcy was interrupted. Without warning on a cool Sunday afternoon, the idyllic mountain community erupted into violence. Machine gun fire echoed through the hills. Resistance units began planting bombs along the roadside, and EPS forces trolled the community streets, homes, and local schools to conscript available youth.

He remembers the splatter of blood and the scream of pain as his uncle was caught in one of the unexpected firefights, shot dead while milking the family's cow. His anger burned as state security forces shrugged off the killing and then dragged away his uncle's neighbor, accused as a Resistance informant. Amid his uncle's death and neighbor's kidnapping, Hector felt helpless and betrayed.

And now he feels trapped…or is it liberated? A *Contra* warrior now occupies the next room, sharing his story with Hector's grieving aunt as she bandages his arm. According to what Hector has already overheard, José was shot in the arm in a nearby battle and separated from his unit. Eventually he wandered to the house of Hector's aunt's to seek basic medical help. The strapping José is still armed and dangerous, gripping a weapon in his non-injured hand.

Hector is uncertain of his next step. If he runs away, he has no idea where to go. Out in the daylight, the Army is likely to find him, haul him away for military conscription, and force him to defend the revolution, a fate his parents never wanted for him. If he stays at his aunt's house, he will have to remain in hiding, a plan that puts his widowed aunt at risk. And if he steps out now and joins the Resistance, he will have to take up arms against his state, likely be mocked publicly as a Guardsman "traitor", and probably fight his old classmates who were conscripted in Chontales.

Again he remembers his parents' constant critiques of the FSLN, remembers soldiers shrug off his uncle's death, and remembers the old man next door dragged away from his family. He remembers a rumor that the Resistance offers good money to volunteers and their families. Hector makes his decision. He steps into the next

room with his hands in the air. The Resistance fighter, José, almost shoots, but he warily lowers his gun and waits for Hector's explanation.

The next few years are like a bad dream for Hector, but at least it is a shared dream with a new set of "brothers". In his unit's clashes with the *Sandinista* Army, militias, competing *Contra* groups, and civilians caught in the crossfire, he is haunted by the cruelty of this civil war. Hector feels more and more removed from innocent memories of Chontales and the distant mountain community that first baptized him into the Resistance. He cannot decide whether he is proud or ashamed of his actions in battle, his moral compass decimated by the compromises inherent to violence.

But Hector is sure of his commitment to his guerrilla unit, especially to José. Together they have buried many warriors, but also welcomed in many new recruits. Hector recognizes the mixed motives among the rural peasants who dominate his unit: many of them joined in pursuit of riches (or at least financial incentives), others sought purpose or revenge, and many simply fled the traps of their pre-Resistance lives: repression, poverty, or military conscription.

It now is 1989. Hector longs for an end to the war, hopeful for the peace and upcoming elections. Still, he is uncertain what he has to offer in post-war Nicaragua. He only knows how to survive, to hide, to hate, to kill, and to protect his own.

<center>Model Discussion: Resistance Mobilization in
the 1980s and Reflections on Hector's Story</center>

Again, the purpose of model discussion is to examine the relative utility of the project's simulation in explaining common youth realities for the period, in particular the growth and decline of Nicaragua's counter-revolutionary Resistance. In the war-

torn 1980s, several explanations could be applied to dynamics of youth mobilization. Hector's narrative sheds light on several key factors, supplemented by quantitative and qualitative empirics from an array of sources. Figure 5-6 compares simulated model results with the reference estimates of militant numbers from 1980-1994. They share a bell-shaped pattern across the period, although model results (solid line) seem to show a short delay compared to the peaks and declines of youth participation in the historical data (dotted line).[311]
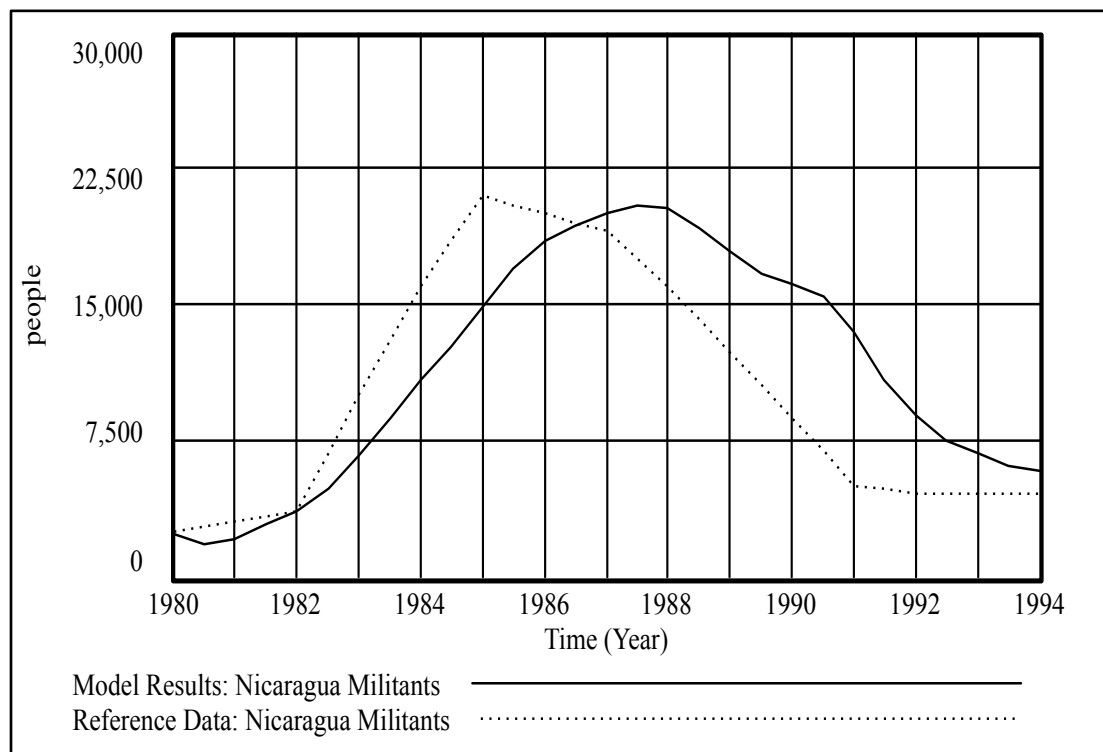
Figure 5-6. Number of Nicaraguan militants, 1980-1994: Model vs. reference data.

311. In the model's simulation, population sectors reset in the third quarter of 1979 due to the massive shakeups of a revolutionary governing regime. "Militant Youth" immediately shift to the "Pro-Government" category, while "Pro-Government", "Opposition", and "Unaffiliated" sectors are distributed to other sectors based on qualitative accounts of the period. See M. Hamilton (2012) online data archive for details on population distributions. Most other variables follow their pre-revolutionary trajectories, with necessary reset exceptions for "Militant Capital" and "Militant Legitimacy".

A closer look at "attractiveness" factors offers a more complete view of how well the model fits Nicaragua's empirical realities in the 1980s. The model posits "attractiveness" factors to explain *Contra* youth mobilization from 1980-1985 (figure 5-7), and its subsequent demobilization from 1986-1992 (figure 5-8). In the former period, three causal factors stand out: an initial spike in *Greed*-based "Militant War Booty", followed by lower-level yet still significant factor values for "Political" and "Economic" *Grievances*.[312]
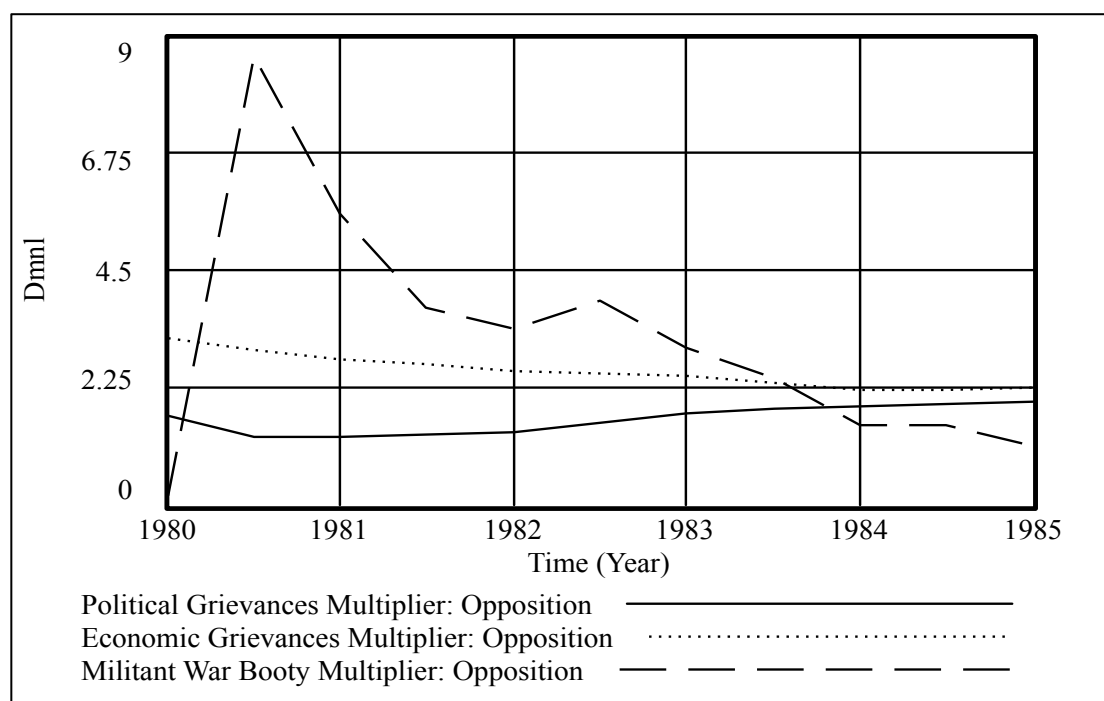
Figure 5-7. Dominant attractiveness factors for Nicaraguan militant mobilization, 1980-1985.

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312. *Greed*-driven "War Booty" (dashed line in figure 5-7) calculates at nine times its initial factor value. As explained in Chapter 3, this reflects perceived financial incentives (marginal utility) for joining a militant group as compared to economic expectations in the broader national marketplace. Relative values for the two *Grievances* factors (solid and dotted lines) effectively cross by midyear in 1983, but together they combine for a consistent "attractiveness" value of 3.5 to 4.5 across the period. Not shown in figure 5-7 are *Groups* factors "Militant Legitimacy" and "Network Contagion", which together play expanding, yet limited roles than with *Sandinista* mobilization of the 1970s. Combined, their factor value grows from a negative/diminishing measure of 0.25 in 1980 to about 2.25 in 1985.

Model results argue that unlike *Grievance* and *Groups* explanations of FSLN

mobilization in the 1970s, *Greed*-infused "Militant War Booty" (dashed line in figure

5-7) helped to activate early Resistance mobilization in the 1980s.[313] Applied to case

historical data, including Hector's narrative, the model's explanations of Resistance

(*Contra*) mobilization stand up reasonably well.

Hector's decision to join the Resistance in 1984 was driven on the surface by

Grievances and (Perceived) Injustice, but the groundwork laid for his choice – the

failed expectations of a sabotaged economy, the perceived viability of an anti-regime

Resistance struggle, the panic-driven policymaking of the FSLN regime, and even the

emotional death of his uncle caught in the crossfire of a battle – was conditioned by

the mobilization of previous armed actors who, in large part, responded to the *Greed*

and Incentives mechanism. Even Hector's narrative recognized the financial incentive

for joining the movement. He and mentor José were able to leverage the profit motive

in their pursuit of future recruits.[314]

Most scholars and analysts of Nicaragua's civil war in the 1980s argue that

the armed mobilization of the *Contras* cannot be explained apart from the massive

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313. The FSLN received increased external patron support from Cuban and Soviet governments in latter stages of the anti-Somoza insurrection of the 1970s, but there is broad agreement among area scholars, state officials, and armed participants that "*Contra*" forces received a greater level of support from the US in the early 1980s (Cameron 2007).

314. A sugar mill foreman-turned-FDN recruiter shares his own mobilization incentive with writers Eich and Rincón (1985, 137), "The hacienda paid me 4500 *córdobas*, and they offered me 10,000 *córdobas*. I'm not saying I took the job just to earn a lot of money, but it wasn't bad." A disillusioned former *Sandinista* rejoins, "I joined the counterrevolution because I was practically suffocating from rejection... The counterrevolution took advantage of my bad situation (Ibid, 19)." Another interviewee offers a systemic view: among rural peasants, when "things are worse" it incentivizes armed recruitment, especially given their expectation that the *Sandinistas* "come and capture you because you have been helpful to the FDN (Ibid, 101)."

infusion of US funds they received to help destabilize the new FSLN regime in

Managua.[315] Critics cite the predominance of ex-National Guardsmen in *Contra*

leadership roles, especially within the well-funded Nicaraguan Defense Forces

(*Fuerzas Democráticas Nicaraguenses,* or FDN).[316]

According to diverse sources, financial assistance to counter-revolutionaries

began in earnest in 1981 (purportedly to limit *Sandinista* support to leftist rebels in El

Salvador) with sums exceeding $20 million US dollars per year until 1986.[317] *Contra*

mobilization expert Horton (1998: 117) estimates that some $400 million dollars of

US military aid was directed to Resistance leaders during this period.[318] This aid was

supplemented by technical and logistic support and key foreign policy interventions,

including economic sabotage and disinformation campaigns against the governing

Sandinista regime.[319]

A conflicting argument emerges among *Contra* sympathizers and outspoken

critics of the *Sandinista* regime in this period.[320] They downplay influence of external

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315. See examples this claim in Booth et al. (2006, 188); Brody (1985); Lopéz (1987); etc.

316. According to a politically influential, damning report by Brody (1985, 133), at least 46 of 48 FDN command positions were held by ex-National Guardsmen. Its leader, a former Lieutenant Colonel in the Guard, Enrique Bermúdez (nicknamed *Comandante 3-80*), maintained close ties with CIA handlers throughout the 1980s (Brody 1985; Cameron 2007; and A. Cruz Jr. 1989; etc.)

317. For discussion of yearly US government funding to the Nicaraguan Resistance and the political implications for the US and Nicaragua, see L. Hamilton and Inouye (1987) in their "Report of the Congressional Committees Investigating the Iran/Contra Affair." Scholars such as Masís-Iverson (1992) and Arnson (1993), along with political insiders Cameron (2007) and A. Cruz Jr. (1989), offer a comprehensive view of how shifting US domestic politics influenced the evolution of *Contra* support.

318. As specified in the project model, external cash infusion offered significant financial resources for militant capital development, guerrilla marketing, and human capital payroll.

319. See specification of economic sabotage tactics in Fitzgerald (1987); López (1987); etc.

320. See T. Brown (2001); A. Cruz Sr. (1987); Dillon (1991); and Valenta and Valenta (1987), among others.

funding and former National Guard officials in mobilizing armed Resistance. Instead they highlight the movement's peasant roots, claiming the precedence of *Groups and Identity* and *Grievance*-based causal mechanisms.

Horton (1998), writing from a *Contra* stronghold at the Nicaragua-Honduras border, offers a more balanced and integrative view. Anti-*Sandinista* militias (known as "*MILPAS*") emerged as early as 1979, catalyzed by the rural elites' fear of land expropriation and grounded in their patron-client relationships with local peasants. Nevertheless, the *MILPA* armed struggle (and corollary movements mobilized among indigenous insurgents in Eastern Nicaragua and ex-revolutionaries along the Costa Rican border) never reached a meaningful threat threshold for the *Sandinista* regime until they integrated with well-funded *Contra* forces like the FDN. According to Horton (1998, 120), "*MILPA* leaders understood that if they rejected the role of the National Guard, they would also lose access to US financial assistance and therefore accepted an often tension-filled subordinate relationship with the National Guard."

Government repression (and "Political Grievances") increased dramatically in the early 1980s due to a coalescence of contributing factors: growing state threats perceived from well-armed Resistance forces, growing *Sandinista* fear of a direct US invasion (especially after the 1983 US incursion in the Caribbean island of Grenada), growing popular discontent with economic shortfalls, and a growing regime tendency towards militarization in times of crisis.[321]

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321. According to FSLN critic Taboada Terán (1987: 87), "The simplistic thesis that blames the *Contra* civil war and the United States for (all) of Nicaragua's woes is unacceptable." Dillon (1991: xxi) tells a sympathetic story of the *Contras*, largely through the lens of Luis Fley, better known as "Jhonson" and cites the "mixed-up relations with the succession of Americans who have left their imprint on Nicaragua."

As predicted in the model and described in Hector's narrative, the relatively low-level "Political Grievances" and "Economic Grievances" during the first years of FSLN governance (demonstrated in the skepticism of Hector's parents) expanded to encompass a broader motive for armed youth mobilization, catalyzed by economic crisis, political conflict, and forced military service that delegitimized the regime.

Armed mobilization of *Contra* warriors eventually slowed in the late 1980s. The process was capped by the tense 1990 election of "Opposition" candidate Violeta Barrios de Chamorro, the high profile widow and mother envisioned by many as a symbol of national reconciliation. Figure 5-8 maps behavior of five "attractiveness" factors posited to facilitate *Contra* demobilization from 1986-1992. Their explanatory power is fairly evenly shared, although "Militant War Booty" is again most dominant.
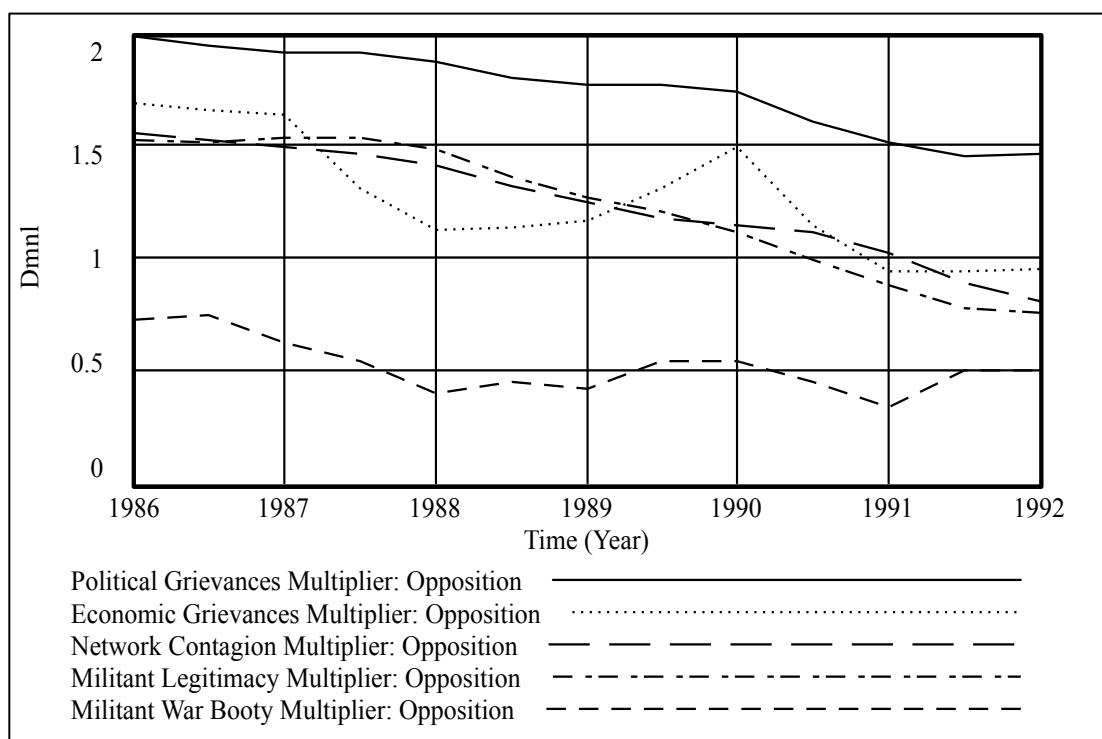
Figure 5-8. Dominant attractiveness factors for Nicaraguan militant demobilization, 1986-1992.

Greed-induced "Militant War Booty" (the short dashed line at the bottom of figure 5-8) was identified earlier as the dominant contributor to *Contra* mobilization in the early 1980s. By the end of the decade, though, the factor's low levels helped to spawn demobilization, effectively reversing the direction for "attractiveness".[322] In the model's results, shortfalls in the per capita payroll of the *Contras* halved the relative "attractiveness" for armed recruitment compared to 1960 and diminished "War Booty" mobilization effects tenfold compared to the early 1980s. In terms of empirical alignment, most scholars agree that falling *Contra* mobilization in the late 1980s correlated with the decrease in support received from external financiers.[323]

Groups-related factors "Militant Legitimacy" (dashes and dots in figure 5-8) and "Network Contagion" (long dashed line), which operated in the background for armed mobilization in the early 1980s, also contributed clearly to demobilization by the early 1990s. Whereas at mid-decade, the *Groups and Identity* factors combined to more than double the likelihood of "Opposition" actors joining with the *Contras*, by period's end (1992) the mechanism's influence on "attractiveness" had diminished by a factor of four and now worked against armed mobilization by the Resistance.[324]

The empirical case record coincided with model results for falling "Militant Legitimacy". Relevant legitimacy shifts included growing regional pressures for non-

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322. This *Greed & Incentives* factor hovers near 0.5 as the period progresses, well below initial equilibrium (normalized at 1). The "Militant War Booty" value calculated for already mobilized "Militant Youth" (not shown in these "Opposition" graphs) follows a similar pattern, hovering near 0.5 throughout the period. In the model, this doubles net demobilization.

323. Effects of falling US support are discussed by Kinzer (1991) and T. Walker (2000); etc.

324. The *Groups and Identity* factors combined in 1986 for an "attractiveness" value of 2.4, but shifted to a sub-equilibrium value of 0.6 by 1992. This was a significant reversal in just six years.

violent settlement,[325] growing "war weariness" among the masses,[326], falling

battlefield efficiency of the *Contras*, and growing distrust from increased "Militant

Coercion".[327]

"Network Contagion" also showed excellent alignment between model results

and case empirics. Downsizing of the "Militant" cohort and the growing attraction of

Nicaragua's non-violent "Opposition" (due to accord-induced democratic reforms)

stilted earlier militant-friendly network effects. Even Hector, the experienced *Contra*

warrior in the chapter narrative, demonstrated optimism for the 1990 elections and

hope for a non-violent future. The emergence of an electable "Opposition" candidate

(Barrios de Chamorro) effectively reversed earlier social network pressures, tipping

Nicaragua's contact and "contagion" trends away from militant mobilization.[328]

Grievance factors, both "Political" (solid line in figure 5-8) and "Economic"

(dotted line), continued to encourage some level of armed mobilization this period;

however, reduced *Grievances & (Perceived) Injustice* (which diminished by more

325. "Neighborhood Effects" helped delegitimize armed Resistance in the late 1980s. Examples include adverse findings against a close *Contra* ally (US government) in a controversial 1986 ruling by the International Court of Justice. Even more important was the success of a Central American Peace Agreement, known as the "Arias Plan" or "Esquipulas Process" (Kinzer 1991; Oliver 1999; etc.). These peace negotiations, led by Costa Rican President Oscár Arias Sanchez, drew upon the Contadora framework of the 1980s, but this time secured a concrete reduction in US support to the Resistance, in exchange for FSLN promises for democratic reforms. While positive steps for Nicaraguan peace, these phenomena proved fatal for ongoing "Militant Legitimacy".

326. The "War Weariness" effect is discussed in firsthand accounts of the war, documenting a consolidation of public attitudes, in Resistance and FSLN strongholds, favoring political settlement over continued conflict and economic stagnation (Kinzer 1991; T. Walker 2000; etc.)

327. As documented by critical and sympathetic researchers of the *Contra* armed Resistance (Eich and Rincón 1985; Dillon 1991; Horton 1998; Kinzer 1991; etc.) the efficiency and trust deficits during this period were related to the constriction of external funding. Falling levels of community trust reflected enhanced local coercion necessary by Hector and other *Contras* to replace unforeseen shortfalls in Resistance human and capital resources.

328. See discussion of shifting social network effects in Barrios de Chamorro (1996); Booth et al. (2006); Horton (1998); Kinzer (1991); and T. Walker (2000); etc.

than half) were easier to overcome by other factors as organized Resistance slowly faded away.[329] The historical record aligns with the model's predictions of continued yet diminished *Grievances.* Aforementioned ceasefire accords and election-related optimism contributed to decreased state repression and less armed violence at the end of the decade, slowing the swoon of regime legitimacy and economic crisis that had consumed Nicaragua throughout the 1980s.[330] Even Hector was ready for a change.

After the 1990 elections, armed mobilization became increasingly fragmented. "Political" motives for militancy subsided with the advent of democracy; however, a number of challenges continued to influence the country's war-scarred youth sectors. Alternative mobilization structures emerged in the post-conflict era, featuring more localized outlets of community violence. Relevant recruitment dynamics are explored in the illustrative narrative of Francisco and Julio below.

A Narrative Account of Gang Mobilization in
the 1990s: The Stories of Francisco and Julio

Francisco looks cautiously from side to side as he approaches his mothers' ramshackle home in the Walter Ferretti neighborhood of Managua. Tonight is New Years Eve and the year is 1998. While others celebrate, sixteen year-old Francisco just wants to make it home. He is returning from a faraway city hospital, where his elder brother, Julio, is now in intensive care.

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329. *Grievances & (Perceived) Injustice* factors ("Political" and "Economic") combined for an "attractiveness" value of almost 3.5 in 1986 and diminished to less than 1.5 by 1992.

330. Shifting legitimacy trends are discussed by Horton (1998); Kinzer (1991); and T. Walker (2000), among others.

Earlier today, a desperate Julio wandered ill advised into the wrong Managua neighborhood, seeking out drugs to feed his growing habit. A rival gang, or *pandilla*, recognized Julio and beat him badly: a human object lesson not to trespass on its turf. Police arrived to the scene too late to make any arrests, but they were able to ensure Julio's survival.

Francisco learned of the beating within hours from Julio's gang associates in the *barrio*, or local neighborhood. News travels quickly across dense gang networks, much faster than across state bureaucracies. The hospital's administrators were not prepared to call the family until several hours later, when Francisco and his mother were already onsite checking on Julio.

Francisco's late trip home from the hospital has been a complicated journey. After leaving his mother to her night shift job at a Managua gas station, he has since crossed five gang territories. A taxi is too expensive, a nighttime bus too unsafe. For others this might not be an issue, but Francisco looks too much like his brother to go unrecognized.

Julio is infamous within Managua's gang circuit, a formerly feared leader who eventually was consumed by the drugs he once sold as a pioneering entrepreneur. Now twenty-four years old, Julio came of age in the aftermath of Nicaragua's civil war. He and his young crew took advantage of the ready access to small arms and the promising new linkages to the global drug markets. *Barrio* violence was kept in check in the early years after the 1990 elections due to informal pressures of family, church, and neighborhood watch groups leftover from the CDS; eventually, though, the drug money became too attractive.

Julio's success soon bred imitators and organizational competitors from other parts of the city. This contributed to a growing diffusion of community drug use and inter-gang violence. Still, the situation was confined to particular neighborhoods in Managua, with minimal spillover elsewhere. Police relations, while always tense, never approached a warlike status, due in part to a lack of public security resources and institutional incentives, but also to relatively low levels of *pandilla* violence (as compared to political conflict that consumed Nicaragua in the late 1970s and 1980s).

To date young Francisco has resisted joining his brother's neighborhood gang. He enjoys school, but it has been difficult to consistently attend due to his family's shrinking resources. His mother's political loyalty to the *Sandinistas* also has proven hollow. The youth has gained minimal support from the local FSLN employers and power brokers because his last name lacks the pedigree of Ortega, Cardenal, Ruiz, or Chamorro.

Francisco, like many of his peer cohorts, is skeptical about Nicaragua's future because he sees so little hope for his own success. As far as comparative advantage, his best option is to join Julio's gang, seek retribution for this morning's violence, and then leverage his brother's symbolic leadership position in the *barrio*. While that is the logical explanation within the *barrio,* Francisco does not want that future. His heartbroken mother has suffered enough violence.

He recognizes the bitter fruit of Nicaragua's armed conflict and false promise of its current neighborhood criminality, which in combination have destroyed both of Francisco's childhood heroes: his martyred father, who died serving in the *Sandinista* army in the mid-1980s, and his brother Julio, who he saw transformed from a brilliant

young leader to a drug-addicted, reckless, and now helpless *pandillero* now forced to breathe through a straw.

But what are Francisco's options? Like other youth, he feels betrayed by the under-resourced schools, the underdeveloped job market, and the continued nepotism that dominates political patronage in Managua. He wants to escape these traps and start over. Then Francisco remembers the letter that arrived just days ago from his Uncle Álvaro, who raved in it about the good life across the border in Costa Rica: more jobs, more money, more hope.

Francisco is finally home from the hospital. He lets himself into his mother's empty house with a new resolve. He begins to pack his belongings and then prepares a goodbye speech for his mother. As soon as possible, he will be off to the land of *Pura Vida* (neighboring Costa Rica's motto of "pure life").

Model Discussion: Gang Mobilization from the 1990s and Reflections on the Stories of Julio and Francisco

Discussion here assesses how well the modeled "attractiveness" factors explain the phenomenon of youth gang mobilization in Nicaragua's post-war era. What both the narrative and the model are showing, the latter more rigorously, are how context-defined opportunity structures can impact the attitudes and psyches and ultimately the behavior of young people in a society.

Figure 5-9 compares simulated model results for the period 1988-2010 with the available reference estimates for the number of armed youth actors in Nicaragua.

Again a common pattern emerges, with model results (solid line) mirroring a short

delay of peaks and declines in the historical reference data (dotted line).[331]
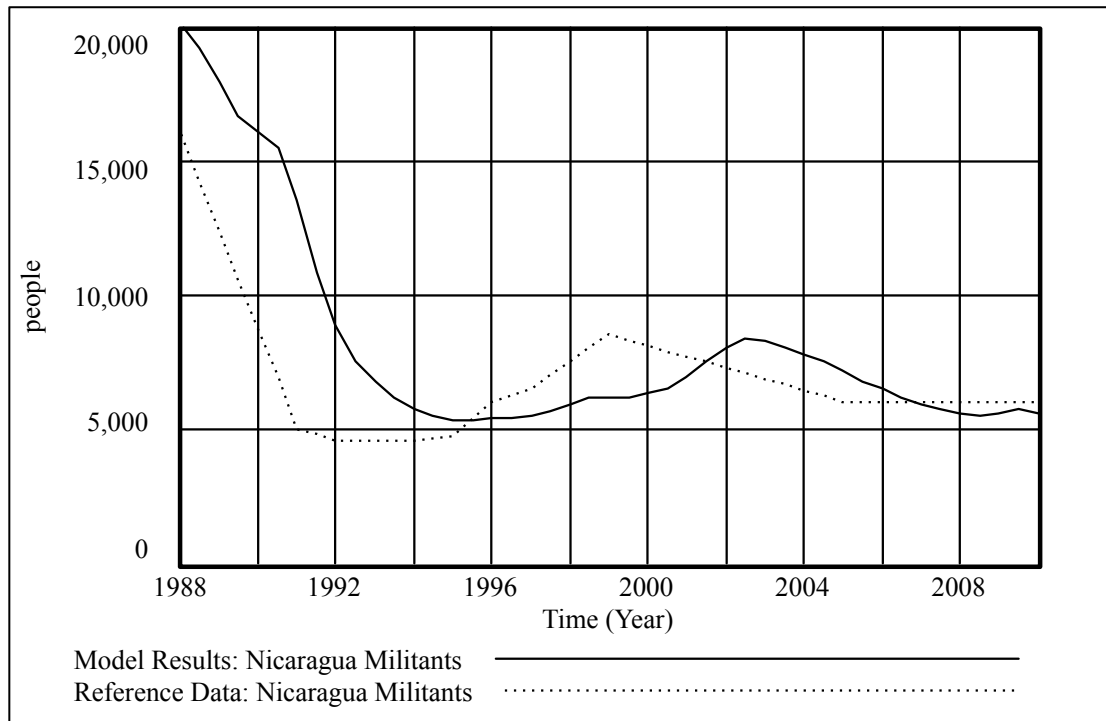
Figure 5-9. Number of Nicaraguan militants, 1988-2010: Model vs. reference data.

As with previous periods, figure 5-10 shows dominant "attractiveness" factors

hypothesized in the model from 1992-2010. Simulated results highlight the mirroring

trajectories for two *Greed & Incentives* factors, which combine with one *Groups and*

Identity factor to explain the limited yet steady growth of violent mobilization across

the period. Specifically, low levels of "Government Fear" (dashed line in figure 5-10)

charted a positive course for *Greed*-based militant "attractiveness" until at least 1999,

while "Militant War Booty" (dotted line) maintained a negative influence until after

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331. The delay is similar to, or builds on the comparative model-to-reference delay observed
in figure 5-6 for the previous historical period: *Contra* mobilization and demobilization in the 1980s.

2000. *Groups*-based contributor "Militant Legitimacy" (solid line) followed a similar

pattern as "Government Fear"; however, like other *Groups* and *Grievance* factors, its

relative impact on attractiveness hovered near equilibrium values across the period.[332]
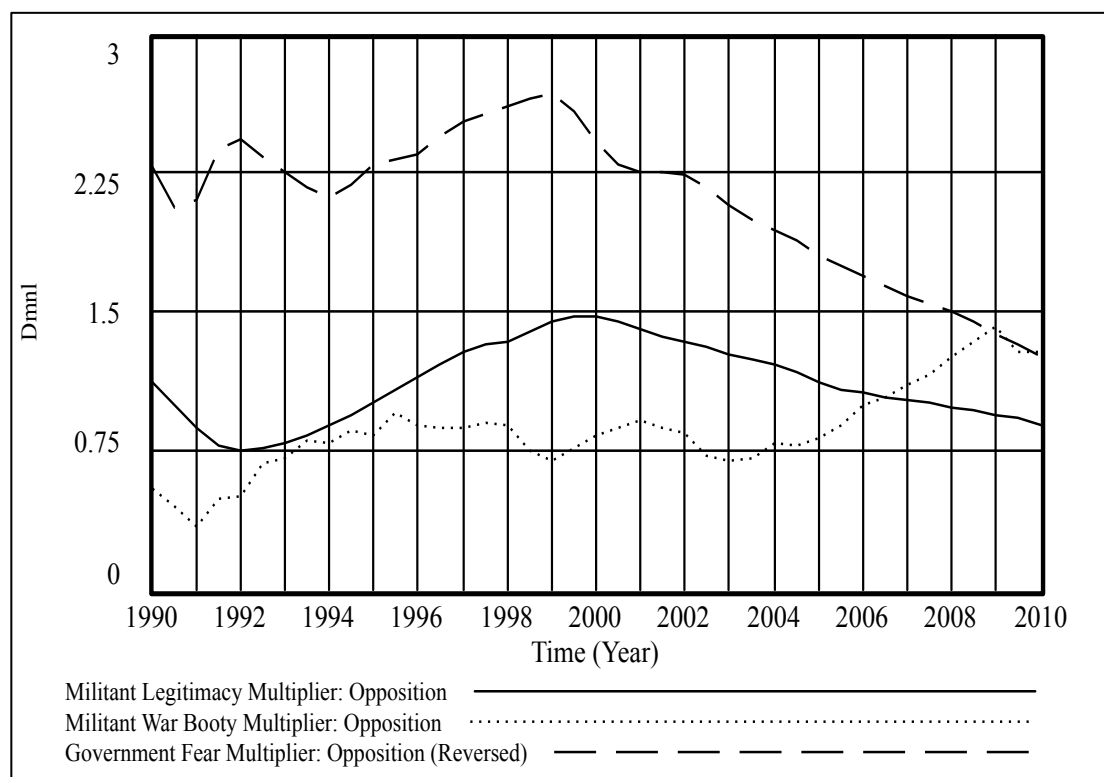
Figure 5-10. Dominant attractiveness factors for Nicaraguan militant mobilization, 1990-2010.

There again is strong correspondence between armed "attractiveness" factors

simulated in figure 5-10 and the experiences of Nicaraguan youth cohorts during the

postwar era (1990-2010), as applied to the illustrative narrative of Julio and Francisco

and other supporting empirical data. For example, the causal dominance of low-level

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332. While it is not graphed in figure 5-10 (due to minor *Grievances* effects in the period), consistently positive "Political Grievances" combine with a brief upswing in "Economic Grievances" to contribute a combined "attractiveness" factor of almost 2.0 in a latter year of simulation (2009).

"Government Fear" (dashed line, figure 5-10) resonates strongly with the empirical

case record. According to most analysts, the state security sector's capacity to induce

"fear" and create disincentives for violent mobilization was decimated by the drastic

government cutbacks after the civil war in the 1980s.[333] For example, the priority for

military and police funding dropped from its peak in 1985, when spending comprised

more than twenty percent of national GDP, to just four percent in 1991, and then less

than two percent yearly after 1993.[334] A similar pattern emerged in the numbers of

state security personnel: the peak deployment in the mid-1980s of more than 115,000

soldiers and police officers (estimated by some analysts at closer to 200,000) was

constricted by 1992 to less than 30,000, then dropped to just over 20,000 in 2010.[335]

In postwar Nicaragua, incapacity of the government security sector combined

with ready availability of weapons to limit "Government Fear" as a barrier for would-

be urban *pandilleros* like Julio. Fragmented armed challenges also emerged in rural

areas from actors such as *Recontras* (dissatisfied ex-Resistance warriors), *Recompas*

(dissatisfied ex-military), and *Revueltos* (mixed forces from both camps).[336] Still,

these movements (both urban and rural) ultimately failed to consolidate a national-

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333. See discussion of state security challenges by Rocha (2006); Rodgers (2005; 2006); and T. Walker (2000), among other postwar case analysts.

334. Sources documenting falling security sector priorities include Bautista Lara (2005); ECLAC (2001); UNODC (2008); and World Bank 2011a.

335. Estimates of Nicaraguan military and police personnel has been triangulated from an array of complementary sources: *Military Balance* reports from the IISS (1970-2010); "National Material Capabilities" data (version 4.0) from the *Correlates of War Project* (Singer et al. 1972; Singer 1987); and multisource compilations by the World Bank (2012); Grossman (2005); Tartter (1993); and UNODC (2008), among others.

336. Booth et al. (2006); Horton (1998); and T. Walker (2000) offer a brief discussion of these groups, highlighting their limited mobilization success due to a lack of organizational capacity.

level presence in spite of the government's security vacuum. Diverse armed actors

commanded attention at the community level, but they failed to mount serious threats

to Nicaragua's newly democratic system.[337] As posited in the model results and then

demonstrated in the historical record, several balancing factors contributed to prevent

armed group participation from spiraling out of control after 1990.

One balancing factor was the lower financial incentive available for armed

recruitment. "Militant War Booty" (dotted line in figure 5-10) diminished relative to

the previous conflict era experience. For Julio and other conflict entrepreneurs, easy

access to leftover war resources (small arms, drug smuggling networks, etc.) proved

to be insufficient for consolidating sustainable growth and power monopolies for their

urban *pandillas* and rural militia groups. Nicaragua, a debt-plagued and war-torn

nation after 1990, lacked the resource base to "make crime pay" due to its insufficient

transnational linkages and external resource infusions.[338] Fragmented local gangs and

failed rural militias lacked resource networks and national-level marketing capacity

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337. "Militant Consolidation" refers to monopoly of power and legitimacy across armed groups and critical "Opposition" sectors of the population. In Nicaragua, militancy and criminal violence has been fragmented after 1990, especially relative to prior armed mobilization of *Sandinistas* and *Contras* (and contemporary *Mara* mobilization in the rest of Central America). The failure of "Militant Consolidation" in postwar Nicaragua has adversely influenced key "attractiveness" factors: "Government Fear" (strengthened fear incentive due to lack of networked protection), "Militant War Booty" (lower targeted remittances due to diminished perceived effectiveness), and "Militant Legitimacy" (failure to craft and market a coherent identity narrative).

338. See confirmatory evidence and a discussion of limited financial incentive in J. Cruz [ed.] (2006); Horton (1998); Jensen and Rodgers (2009); Rodgers (2006); etc.

that proved crucial to the success of *Sandinista* and *Contra* youth mobilization in Nicaragua's recent past.[339]

A second balancing factor limiting runaway armed mobilization after 1990 was limited "Militant Legitimacy" (solid line in figure 5-10), the failure of armed groups to capture the popular imagination and unquestioned loyalty of Nicaraguan young people.[340] Low levels early and late in the period resonate with the illustrative narrative of Julio and Francisco. Nicaraguan community bonds, which were infused with familial, "revolutionary", and religious identity discourses, exerted constraining effects on *barrio* violence.[341] In parallel, the same society-wide "war weariness" that facilitated rejection of *Sandinista* governance in the 1990 elections also delegitimized the excessive violence by other national actors thereafter.

Nicaragua's most successful armed groups recognized their operational and geographic limits in the postwar era: they retained legitimacy in at-risk communities by filling gaps left by broken family and community relationships.[342] They survived by meeting evolving community needs and demands, which shifted from an initial provision of "companionship and security" to an increasing emphasis on providing

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339. An alternative scenario is emerging in the urban centers of Nicaragua's regional neighbors, where *Mara* gangs have effectively leveraged transnational networks to enhance credibility, capacity, and ultimately "Militant War Booty" for youth participants. See discussion in US government reports (National Drug Intelligence Center - NDIC 2009; Federal Bureau of Investigation - FBI 2008; United States Agency for International Development - USAID 2006), policy-based advocacy briefs (Thale and Falkenburger 2006; M. Johnson 2006; Bellvé 2004) and scholarly accounts (Arana 2005; Bruneau 2005; J. Cruz [ed.] 2006; Estrada 2008; Hagedorn 2008; Rodgers 2005; Manwaring 2005 and 2007; and Saltsman and Welch; etc.).

340. See discussion of failed militant legitimacy in Asencio (2003) and Grigsby (2005).

341. Rocha (2006a); Rodgers (2003); and Valencia (2011) address rival identity affiliations.

342. See discussion of Nicaraguan gang affiliation dynamics in Maclure and Sotelo (2004); Rocha and Rodgers (2008); and Téllez (2009).

illicit drugs.[343] As for the ambivalent effects of "Militant Legitimacy" in the period, consider the family narrative of Julio and Francisco: one brother chose a *pandillero* path, while the other sought alternative opportunities to avoid this fate.

Grievances & Perceived Injustice were limited contributors to violent youth participation after 1990: "Political Grievances" and "Economic Grievances" were notable in their absence for figure 5-10 after exercising crucial "attractiveness" roles in previous *Sandinista* and *Contra* mobilization. Nicaraguan youth were confronted with relatively minimal state repression in the postwar era. They benefited from the efforts of diverse government regimes to depoliticize and professionalize security forces, even amid severe state budget cuts.[344] Also, the relative *Grievance* effects of Nicaragua's corruption scandals, economic stagnation, and substandard government services, which would have rocked other societies, were muted in this system.[345] For war-experienced youth like Francisco and Julio, political-economic shortcomings after 1990 were less of a shock than a disconcerting, if somewhat bumpy status quo.

Still, youth in Nicaragua always seem to increase expectations leading up to an election cycle, prospective job opportunity, or neighborhood power realignment.[346] Time and again, though, hopes are deflated by political scandals, broken contracts, or fractured global relationships. A treasured national characteristic in Nicaragua is its

343. The drug motive in contemporary Nicaraguan gang mobilization has been analyzed by DIRINPRO et al. [eds.] (2004); Jensen and Rodgers (2008); and Rocha (2006b), among others.

344. See discussion of professionalized and depoliticized security sector reforms by Bautista Lara (2005); Castillo Villarrea (2005); and Ruhl (2003).

345. Booth et al. (2006); Parker (2004); Pérez Baltodano (2006); Rodgers (2006); Téllez (2009); and UN-ODC (2007) document continued challenges of Nicaragua's political economy.

346. The Nicaraguan idiosyncrasy to favor optimism in spite of contrary previous experience is discussed by Asensio (2003); CINCO (2001); and Parker (2004).

citizens' poetic ability to bounce back from tragedy and dream again. *Grievances*, especially in the postwar era, are less a call to armed mobilization than an impetus for out-migration. Francisco's decision is hardly uncommon after 1990: at least ten percent of his peers have journeyed across the border to Costa Rica, contributing needed remittances to their families and homeland even as they seek a better life.[347]

Armed youth violence remains a key issue in contemporary Nicaragua, but its scope is small relative to other Central American states. The per capita homicide rate measures three to four times less than comparable estimates from El Salvador and Guatemala, and gang mobilization is half that of El Salvador and at least six times less than Honduras.[348] There are several rationales for Nicaragua's lower incidence of gang-related violence in comparison to its regional neighbors: the progressive remnants of its revolutionary political mobilization, its relatively non-militarized response to security challenges, and its distinctive US emigration patterns (Miami versus gang-riddled Los Angeles), with implications for transnational linkages.[349]

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347. Migration dynamics are well documented by Orozco (2008) and the World Bank (2012).

348. Nicaragua's comparative rate of twelve deaths per 100,000 and gang mobilization rate of eighty-one per 100,000 is cited in UN-ODC (2007, 54-60).

349. Rocha (2006) and Rodgers et al. (2009) discuss adverse impacts for gang mobilization of the *Sandinista* revolutionary consciousness-raising in the 1980s. Meanwhile, the gang-limiting effects of Nicaragua's public security approach vis-à-vis the *Mano Dura* approach of neighbors is analyzed by Hagedorn (2008); Hume (2007); and Rocha and Rodgers (2008). Finally, Nicaragua's distinct pattern of eNora Hamilton and Norma Stoltz-Chinchilla, "Central American Migration: A Framework for Analysis," in *New American destinies : a reader in contemporary Asian and Latino immigration*, ed. Darrell Y. Hamamoto and Rodolfo D. Torres (New York: Routledge, 1997). and transnational linkages compared to regional neighbors, is explored by Arana (2005); M. Johnson (2006); and Rocha (2010), among others. In the 1980s, Nicaraguans were welcomed as political refugees in Miami while undocumented Salvadorans and Guatemalans were forced to fight for street credibility in gang-rich Los Angeles. Subsequent deportations returned US-raised gang members to countries they hardly knew, overpowering the rebuilding institutions and weakened state security sector decimated by so many years of civil war throughout the region.

<u>Conclusion</u>

This chapter, like the preceding Sri Lankan account in Chapter 4, has sought

to address three project research questions:

1. Is it possible for one system-level model to explain the empirical patterns of growth and decline in the number of Nicaraguan youth who have actively participated with non-state armed groups in the last half-century?

2. What are the most salient explanatory factors or causal mechanisms that influence the "attractiveness" of youth participation with armed groups?

3. Does the explanatory value of these causal mechanisms vary across different forms of armed mobilization and distinct institutional contexts?

Figure 5-1, presented at the outset of the chapter and then supplemented by

period-specific graphs in figures 5-3, 5-6, and 5-9, compares the Nicaraguan model

results with reference estimates of armed youth participation over the last fifty years.

Each graph shows strong correspondence between the longitudinal model results and

historical patterns of armed mobilization and demobilization in Nicaragua over time.

A brief introduction framed the political-economic backdrop for armed youth

recruitment in Nicaragua. The bulk of the chapter, though, tested the extent to which

the simulated factors of mobilization "attractiveness" aligned with available evidence

from the empirical case record, including period-specific illustrative narratives.

In response to the first project research question, the chapter found powerful

correspondence between the simulated model results and the empirical case record

(including illustrative narratives) for three key periods of violent youth mobilization:

Sandinista mobilization in the 1970s, *Contra* mobilization (and demobilization) in the

1980s, and fragmented gang mobilization throughout the postwar era (1990-2010). As

with earlier exploration of Sri Lanka's case, this chapter's model analysis meets head-on the challenge of offering a comprehensive explanation of armed mobilization over a fifty-year period.

Responding to the second research question, the chapter highlights three causal mechanisms and six "attractiveness" factors underlying armed mobilization according to the project model (shown earlier on in figure 5-2). Case application and testing of model-simulated results demonstrate the relevance of each mechanism: *Groups and Identity, Grievances and (Perceived) Injustice,* and *Greed and Incentives.*

In response to the third research question, this chapter specifies shifts in the three causal mechanisms' explanatory value across different time periods and distinct institutional contexts. For example, the two "attractiveness" factors of *Grievances and (Perceived) Injustice* provide dominant explanation for *Sandinista* mobilization in the 1970s, and they contribute to an eventual snowball effect for complementary mechanisms of *Greed and Incentives* and *Groups and Identity.* Meanwhile, counter-revolutionary *Contra* mobilization in the 1980s relies on the early prominence of the *Greed and Incentives* mechanism, which indirectly (via the political-economic effects of the civil conflict it helps to catalyze) increases the relevance of *Grievances and (Perceived) Injustice* explanations. Subsequent demobilization of the *Contra* forces follows a similar pattern: falling *Greed and Incentives* to close the decade influence a downturn in secondary causal mechanisms, *Groups and Identity* and *Grievances and (Perceived) Injustice.* Finally, for emergent gang mobilization after 1990, its limited overall growth pattern is shaped by oft-conflicting dynamics of *Greed and Incentives*

(low "Government Fear" balancing low "Militant War Booty"), with relevant inputs

from the "Legitimacy"-related *Groups and Identity* mechanism.

    In conclusion, this chapter confirms the utility of applying the conceptual

model outlined in Chapter 3 to the case of Nicaragua. As with earlier application to

Sri Lankan case empirics in Chapter 4, it demonstrates how a comprehensive theory,

represented explicitly in a system dynamics model, can deepen our understanding of

youth mobilization across diverse contexts and circumstances. Broad lessons learned,

model limitations and extensions, and case comparisons are engaged in Chapter 6.

CHAPTER 6: CONCLUSIONS, LESSONS

LEARNED, AND EXTENSIONS

The research project has explored why young people join non-state armed

groups across different institutional and political-economic contexts. This chapter

reviews major findings and lessons learned from scrutinizing the dual country cases

of Sri Lanka and Nicaragua with a singular analytic model. To explore the model's

general utility (in response to the final research question), the chapter loosely applies

its three causal mechanisms to other case scenarios and considers explanatory value

for distinct global contexts. General recommendations are proposed to help redirect

violence-inducing mechanisms, including a few illustrative examples of responsive

peacebuilding and governance initiatives. Model leverage points are then applied to a

controversial shadow case. The chapter closes by assessing the project limitations and

discussing several potential extensions of the model and overall research program.

Review of Model Findings and Lessons Learned

What are the major findings and lessons learned from this project? And what

is the value added by the integrative original model and by its dual case analysis and

application? In review, here are the four research questions outlined in Chapter 1:

1. Is it possible for a comprehensive theoretical model to explain the general empirical patterns of growth and decline observed in the number of young people who have actively participated with non-state armed groups in Sri Lanka and Nicaragua over the last half-century?

2. What are the most salient explanatory factors or causal mechanisms that influence the "attractiveness" of youth participation with armed groups?

3. Does the explanatory value of these causal mechanisms vary across the different forms of armed mobilization and distinct institutional contexts analyzed in the country studies?

4. What are the lessons learned from modeled case studies that may be of utility for other global cases of violent youth mobilization?

The project's three-part hypothesis (also introduced in Chapter 1) responds to the research questions and offers a flexible framework for in-depth and long-run case analysis, specified to South Asian and Central American contexts:

A. Patterns of youth participation with the diverse forms of non-state armed groups in Sri Lanka and Nicaragua over the last half century can be explained and modeled according to the interactive system effects of three principal causal mechanisms: 1) *Groups and Identity, 2) Grievances and (Perceived) Injustice, and 3) Greed and Incentives.*

B. These three mechanisms together influence the "attractiveness" of armed mobilization for relevant youth populations, and the year-to-year shifts in their relative explanatory value can be traced through analysis of feedback effects in the broader system.

C. Effective youth policy requires not only treatment of the readily apparent symptoms of the currently dominant causal mechanism, but also preventative appreciation of broader system dynamics and potential feedback effects from other, often ignored mechanisms.

Responding to the first two research questions (and hypothesis A), the project has synthesized salient arguments from the competing causal paradigms identified in the literature review, converting them to three interactive mobilization mechanisms: 1) *Groups and Identity, 2) Grievances and (Perceived) Injustice, and 3) Greed and Incentives.*[350] The resultant conceptual model, comprehensive in scope, is legitimated

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350. Chapter 1 surveyed the literature on causes of armed youth mobilization and underscored the gaps and conflicts in the current state of knowledge. Chapter 2 outlined an eclectic methodology that integrates major schools of competing arguments in a framework of system dynamics modeling. It discussed quantitative and qualitative data inputs, including field research conducted for both cases.

by several criteria assessed in both design and testing phases of the model: its logical and narrative coherence, its adherence to well-established theoretical configurations, its practical utility, and its resonance with common empirical findings across sites.

Contextualized to any given case, the core structure described at length in Chapter 3 offers policymakers and researchers the opportunity to systematically evaluate the model's correspondence to patterns from the historical record.[351] In this project, the conceptual model was simulated for two country cases across a fifty-year time horizon.[352] Pilot applications for Sri Lankan (Figures 6-1 and 6-2) and Nicaraguan (Figure 6-3) cases showed alignment between model results and available reference data on armed youth mobilization, within a healthy order of magnitude.

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351. Chapter 3 operationalized the project model, specifying the core structure of theory-infused feedback loops, the causal logic of "militant attractiveness", and the expected interactive effects across the model's three mechanisms.

352. Chapters 4 and 5 tested the applied model simulation against at least six distinct empirical episodes of violent youth mobilization in Sri Lanka and Nicaragua from 1960-2010.
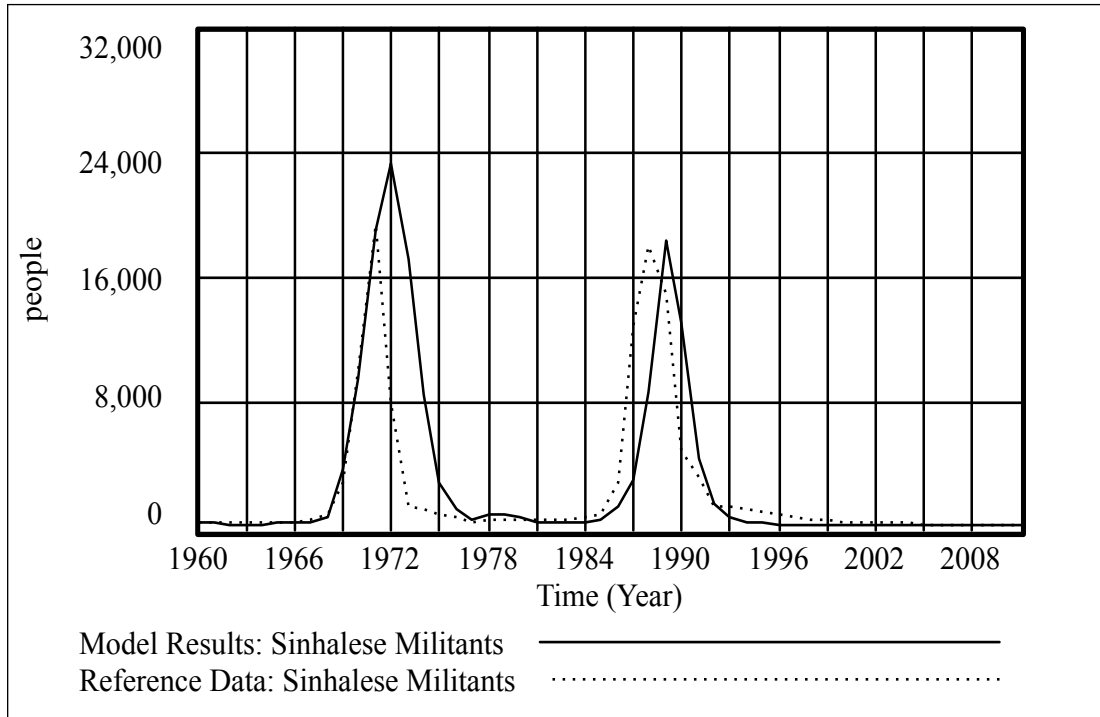
Figure 6-1. Estimates of Sinhalese youth in non-state armed groups, 1960-2010: Model versus Sri Lanka reference data.
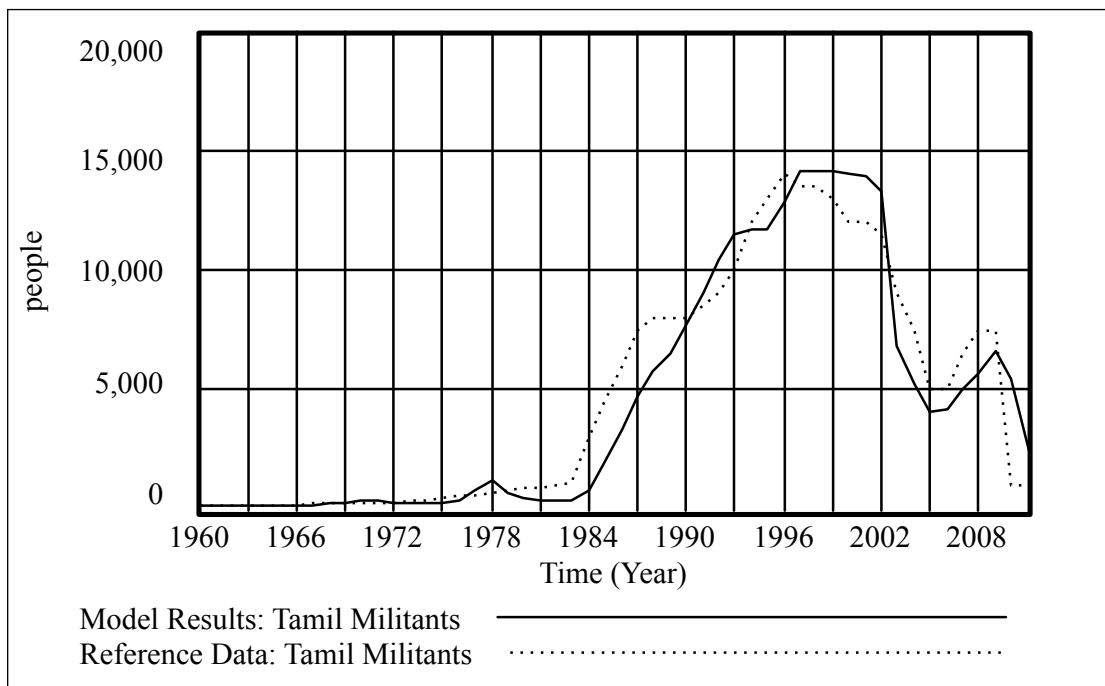
Figure 6-2. Estimates of Tamil youth in non-state armed groups, 1960-2010: Model versus Sri Lanka reference data.
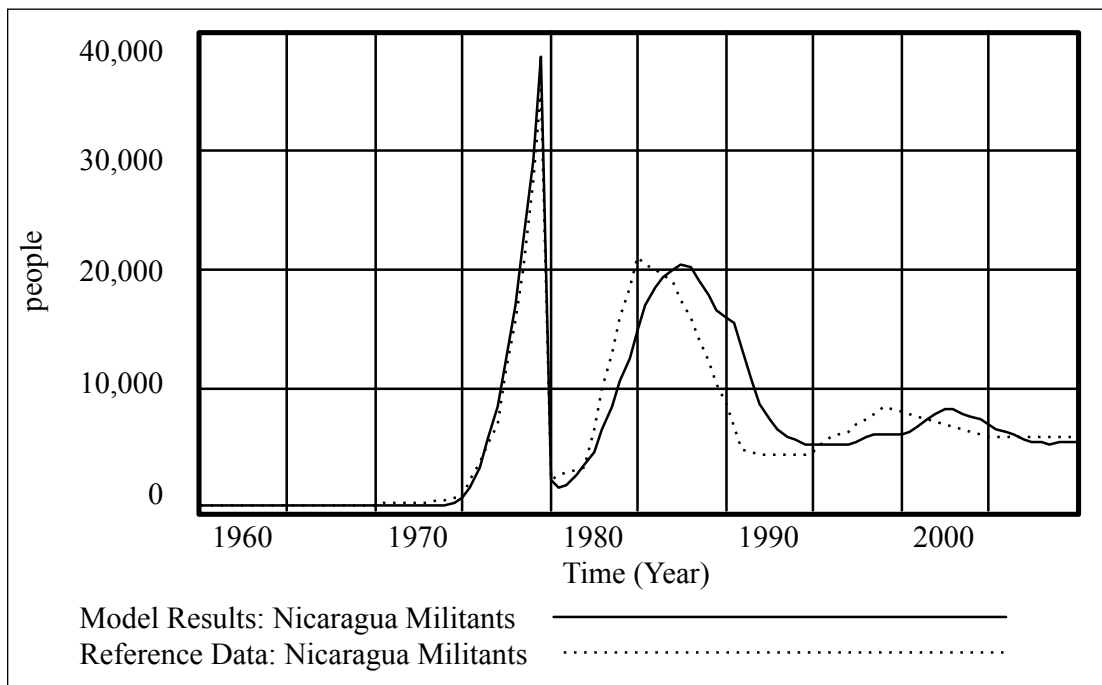
Figure 6-3. Estimates of Nicaragua youth in non-state armed groups, 1960-2010: Model versus Nicaragua reference data.

Of course assessing the true case utility of the model demands more than just replicating historical ebbs and flows in the number of armed actors (shown in figures 6-1 to 6-3). The specific behavior of its three causal mechanisms merits a closer look, including their interactive and relative effects across time. In response to the project's third research question (and based on hypothesis B), the model emphasizes the concept of "Militant Attractiveness", which measures the year-to-year likelihood of young people joining (or leaving) an armed group. "Attractiveness" is determined based on the multiplicative inputs of six causal factors (figure 6-4 on the next page),

which operate in pairs to reflect the impacts of the three model mechanisms: *Groups and Identity, Grievances and (Perceived) Injustice,* and *Greed and Incentives.*[353]
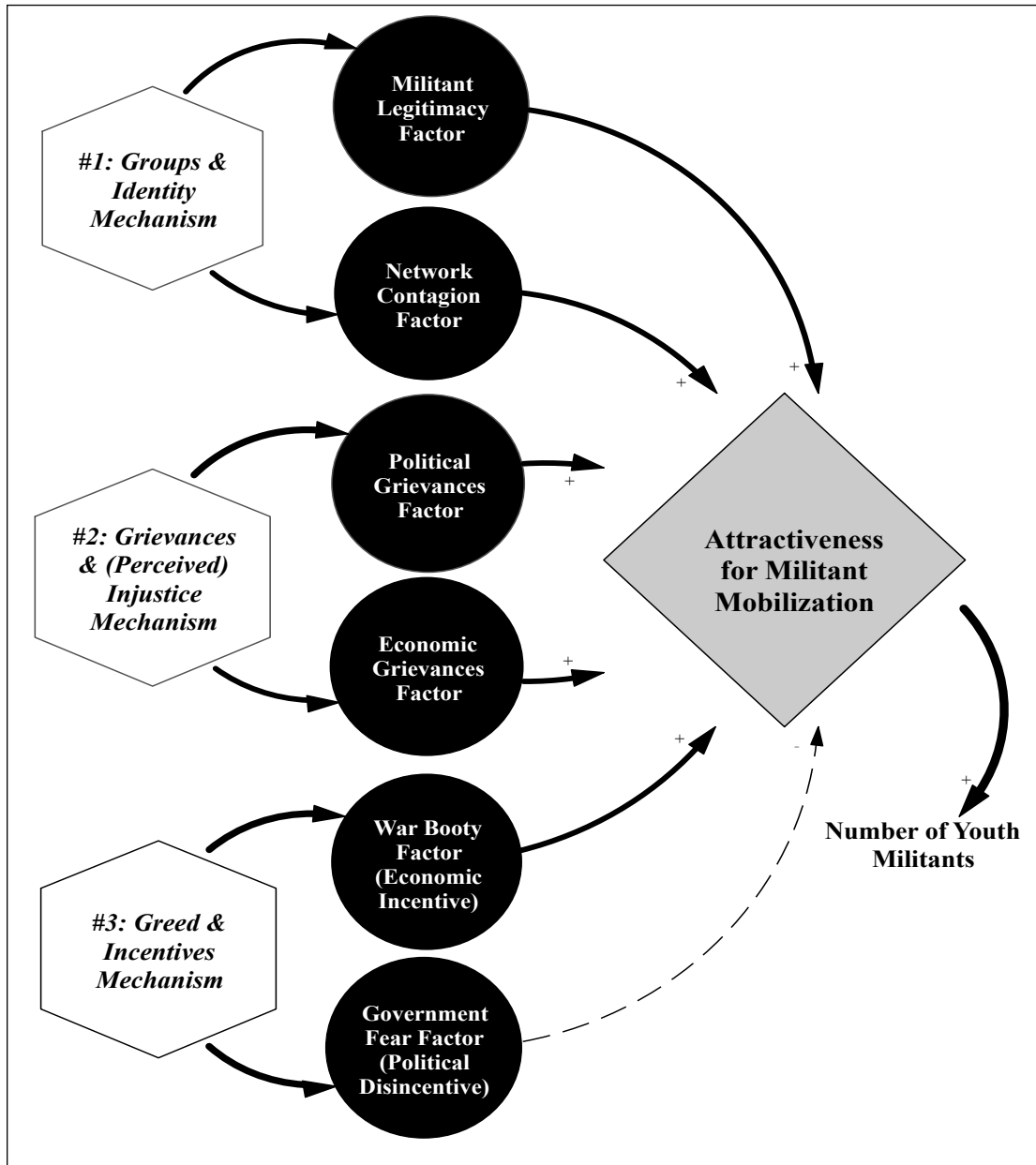
Figure 6-4. Three mechanisms and six causal factors that influence "militant attractiveness".

353. See Chapters 2 and 3 for a more specific treatment of variable relationships and the links between causal mechanisms and proximate "attractiveness" factors in the project model's structure.

The research project supports hypothesis B by demonstrating mechanisms'

relative influence on militant "attractiveness" does not appear to be fixed. In model

simulations for Sri Lanka and Nicaragua, causal dominance shifts over time based on

mechanisms' interactive system dynamics, as well as external shocks to the system.[354]

These findings point to the incompleteness of causal arguments that explain violent

mobilization according to a single theoretical paradigm or causal mechanism.

Chapters 4 and 5 explored shifting patterns of dominance among six causal

factors (and three mechanisms) over an extended time horizon for both cases. They

showed close correspondence between the model-simulated results and the reference

historical data for specified periods of rapid armed mobilization and demobilization,

including comparisons to case illustrative narratives and other empirical data sources.

The next three diagrams (figures 6-5 to 6-7) demonstrate the contributions

from each of the three mechanisms for an overall causal explanation for violent youth

mobilization. Relative explanatory value is demonstrated through absence, tracing the

impacts for militancy when a mechanism's effect on "Militant Attractiveness" is not

considered.[355] For Sri Lankan (figures 6-5 and 6-6) and Nicaraguan (figure 6-7) cases,

the solid lines in the diagrams represent all three mechanisms working in conjunction;

however, the trending lines that are dotted (*Groups and Identity*), dashed (*Grievances

and Perceived Injustices*), or that combine dots and dashes (*Greed and Incentives*)

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354. Examples of external system shocks include natural disasters (Nicaragua's devastating earthquake in 1972 or Sri Lanka's tsunami in 2004) as well as influences from regional or global politics: Cold War influences catalyzed major cash infusions to the Nicaraguan *Contras* (mainly from the United States), while fallout from the September 11th (2001) terror attacks in New York and Washington DC contributed to a constriction in flows of Tamil diaspora funds to Sri Lanka's LTTE.

355. This counterfactual exercise also offers "sensitivity analysis" for the three interactive mechanisms, a key test of model robustness prioritized by system dynamics practitioners.

instead estimate the number of armed actors likely to be mobilized in absence of that

mechanism's "attractiveness" effects.[356] And per the project hypothesis B, variance

should be expected in the longitudinal armed youth mobilization measures if any of

the three causal mechanisms is not considered for the model simulation.
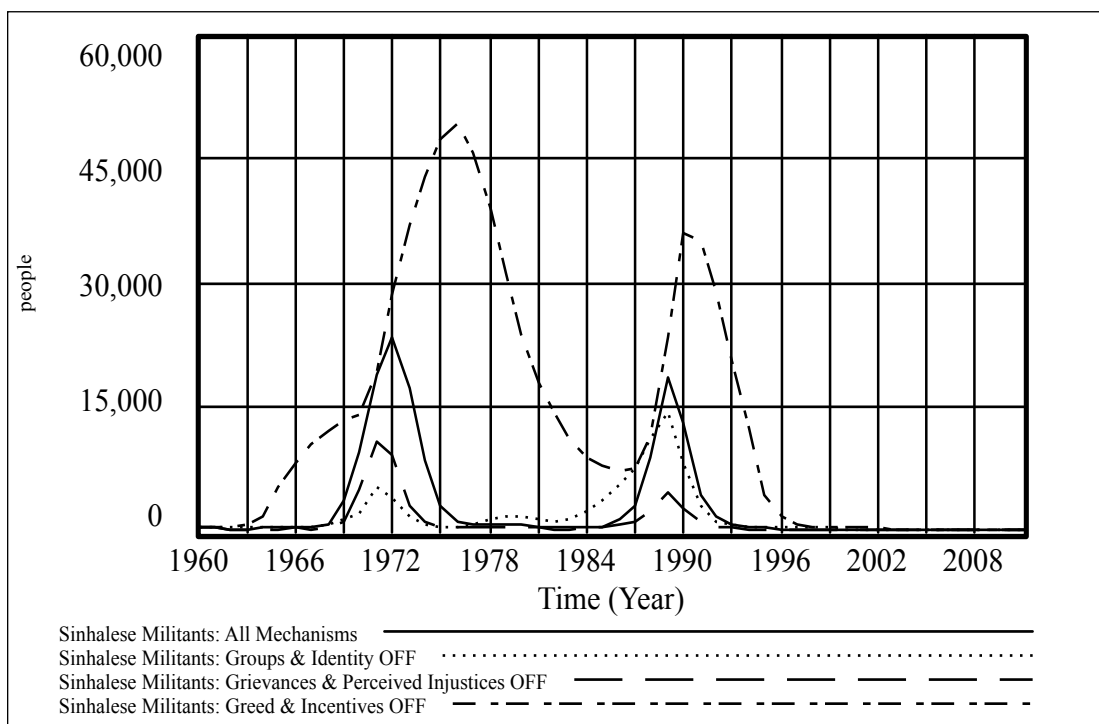
Figure 6-5. Estimates of Sinhalese youth in non-state armed groups, 1960-2010: Mechanisms absent in model simulation.

Figure 6-5 treats alternative simulations of Sri Lanka's Sinhalese population

and demonstrates the conspicuous absence of varied causal mechanisms. For

example, compare the trajectory of the diagram's solid line (representing all three

mechanisms) to the line composed of dots and dashes (representing causal effects of

356. To operationalize mechanism "absence", a counterfactual "dummy" or "control" measure can be simulated. Calculated values for both of a mechanism's "attractiveness" factors are replaced by an equilibrium value of one. This "dummy" configuration allows the modeler to control for and isolate a given mechanism's causal influence on longitudinal measures of armed mobilization.

the other two mechanisms but not *Greed and Incentives* factors). The relative

overshoot in militant numbers in absence of the *Greed* mechanism shows how its

causal influence dampens armed mobilization across time (due mainly to

disincentives of the "Government Fear Factor"). Meanwhile, the other two causal

mechanisms in the model effectively trade explanatory dominance for early (1970s)

and late (1980s) phases of JVP mobilization. *Groups and Identity* factors prove

especially crucial in catalyzing armed mobilization for the 1971 JVP rebellion,

whereas causal factors of *Grievances and (Perceived) Injustice* are more influential

for the JVP militant resurgence in the late 1980s.[357]
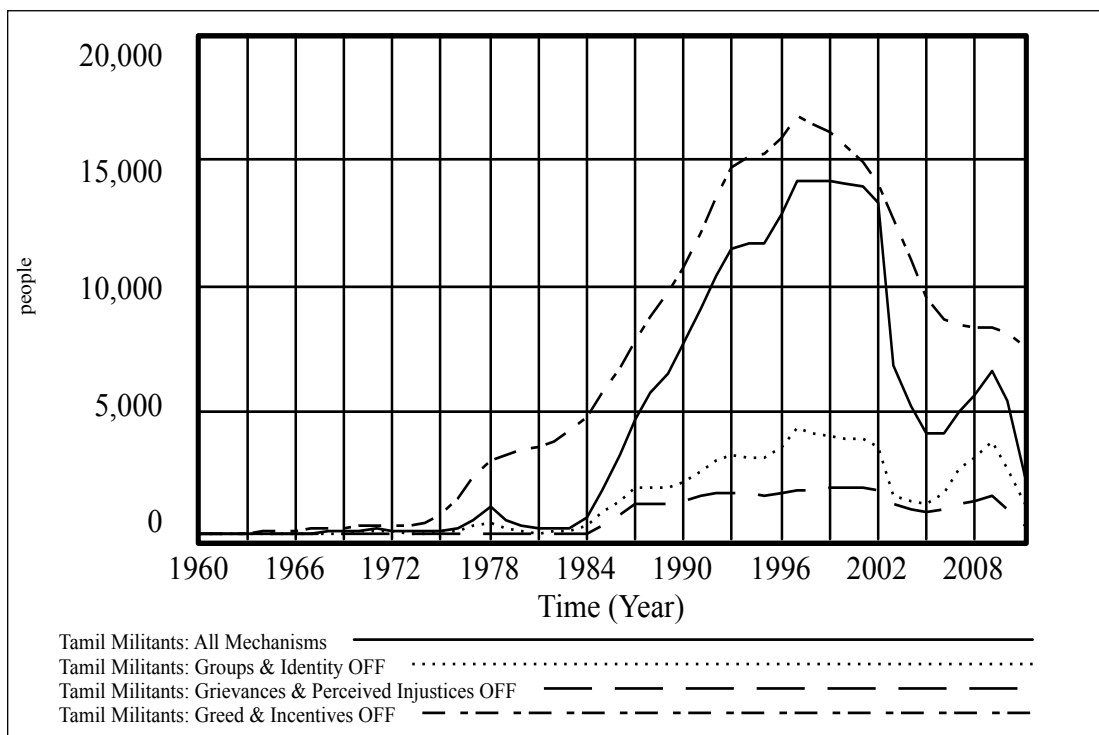
Figure 6-6. Estimates of Tamil youth in non-state armed groups, 1960-2010: Mechanisms absent in model simulation.

357. More detailed examination of particular causal factors' relative effects on "Militant Attractiveness" is offered in Chapter 4 (Sri Lanka) and Chapter 5 (Nicaragua).

As for the armed youth participation of Sri Lanka's Tamil community (figure 6-6), the causal influence of the three mechanisms is far more consistent. *Greed and Incentives* factors again dampen "Militant Attractiveness" across time (due to high levels of "Government Fear" and low "War Booty"). This trend seems especially pronounced just before the "Black July" pogroms in 1983 and during the most recent peace accords (2002-2006). Even more crucial to the Tamil mobilization narrative, though, seems to be the *Grievances and (Perceived) Injustice* mechanism*:* with its simulated absence, the maximum number of youth militants never reaches 2500. *Groups and Incentives* also remains a contributor: when not considered, mobilization levels fail to reach 5000 youth militants. Thus each of the three causal mechanisms proves a necessary component if results of the model's simulation are expected to roughly match case empirics from the historical record.

For the case of Nicaragua, the relative causal influence for each mechanism shifts greatly across distinct periods (figure 6-7). Especially dominant during the *Sandinista* mobilization of the 1970s are *Grievances and (Perceived) Injustice* and *Groups and Identity.* But growth of *Contra* groups in the 1980s and the fragmented gang mobilization after 1990 is predicated on *Greed and Incentives* (and to a lesser extent *Grievances and Injustices),* with minimal and even dampening impacts from *Groups and Identity*.
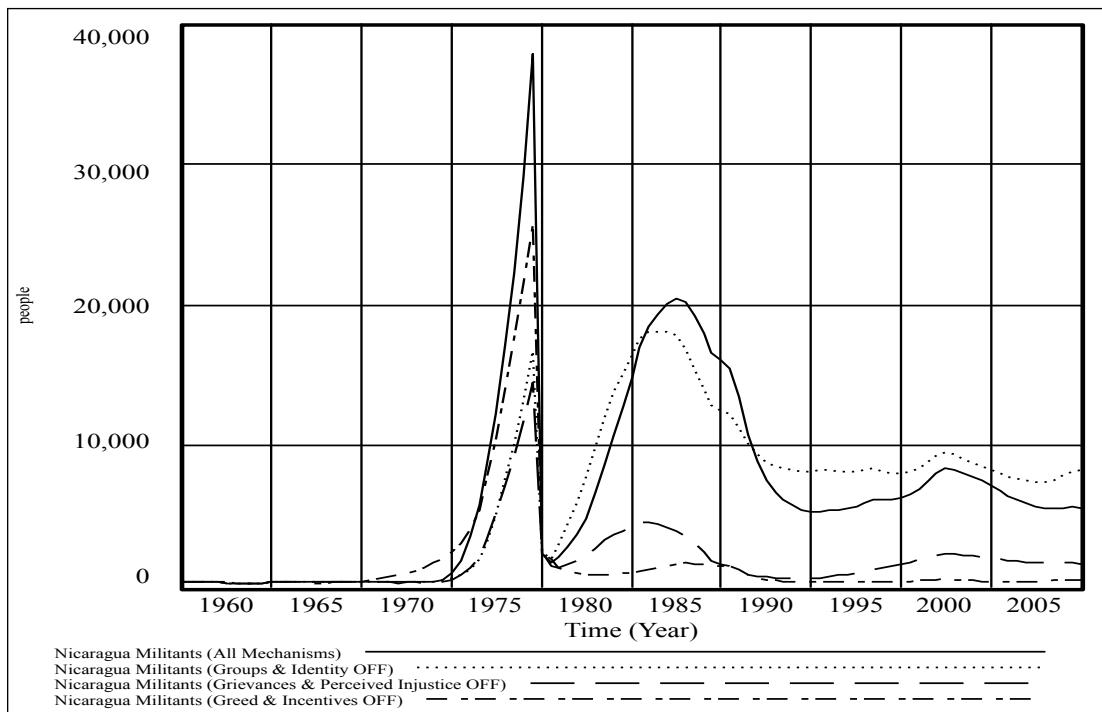
Figure 6-7. Estimates of Nicaragua youth in non-state armed groups, 1960-2010: Mechanisms absent in model simulation.

To synthesize the dual case findings (figures 6-5 to 6-7), it appears that the

relative influence of three causal mechanisms – *Groups and Identity, Grievances and*

(Perceived) Injustice, and *Greed and Incentives* (and the specific factor explanations

of each of them) – seems to vary significantly across time and institutional context,

with testable interactive effects. None of the three mechanisms are demonstrated to

exert a consistent dominance on militant "attractiveness". This finding effectively

disputes those analysts who would prioritize any one mechanism (or theory cluster) in

absence or isolation of the others.[358]

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358. See discussion in Chapter 1 (focused on theory clusters) and Chapter 3 (detailing the model's three causal mechanisms) for a more comprehensive picture of competing paradigmatic approaches to the causes of youth violence. While some integrative research is emerging (for example, Weinstein 2007), most of the conflict literature is staked to one, or at most two, of the theory clusters.

This is a major lesson learned. The project shows that considered in isolation, none of the major causal arguments (applied in the model as mechanisms) can explain or replicate the empirical record of violent mobilization in Sri Lanka and Nicaragua over a long time horizon. However, when these causal mechanisms are considered in conjunction, they offer a richly nuanced and dynamic explanation for why young people have taken up (and laid down) arms in both South Asia and Central America. As per hypothesis C, policymakers interested in long-range violence prevention (and even more immediate violence mitigation) are best served to consider the interactive effects of these mechanisms' and their tendency to shift over time.

The process of analyzing two country cases (including six scenarios of armed mobilization) demonstrates the model's utility, applicability, and ability to generalize across varied sites. In terms of leverage points for future global applications, five key findings stand out from the model simulation of Sri Lankan and Nicaraguan cases:

1) Rapid changes often matter more than initial values or long-term trends, so effective leaders pay attention to expectations and emergent tendencies.[359]

2) The state's inability to manage political and economic expectations, especially amid crises, tends to multiply identity-based mobilization.[360]

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359. Due to the limited historical memory of youth, few of the model factors compare directly to initial values; rather, expectation benchmarks vary from smoothed ten-year trends to immediate changes from the previous year. Impacts of reset expectations, of course, apply both to the government and to militant sectors, making innovation crucial even to maintain the status quo. See discussion by J. Davies (1962; 1963; 1969); Gurr (1970); Richardson and Milstead (1986); and Richardson (2005); etc.

360. Crises tend to be read through an identity-based lens. This leverage point corresponds to the model's internal structure: the *Groups and Identity* mechanism shows sensitivity to rapid shifts in the economic and political factors of *Grievances and (Perceived) Injustice*. "Militant Legitimacy" is influenced directly by "Political Grievances" and indirectly by both *Grievances* factors due to its "Network Contagion" input, which is responsive to large changes in overall "Attractiveness". See discussion by Gurr (2000) and Richardson (2005), among other analysts, for related arguments.

3) Successful state repression depends on the concurrence of three factors: high capacity security forces, low capacity militant challengers, and sufficient economic capacity to create winners and limit grievances.[361]

4) Violence tends to breed further violence, so its sustained discontinuation by a militant group limits the potential of renewed armed mobilization.[362]

5) Militant groups who seek to recruit based on financial incentives usually need ready access to large resource pools, whether internal or external.[363]

These leverage points reinforce arguments found within the multidisciplinary literature (as cited in respective footnotes). Unique to this project is treatment of these arguments as part of an integrated system, synthesizing critical lessons from all three of the theory clusters/ causal mechanisms (S. Henry 2005; Richardson 2005; etc.). The leverage points, among other model findings, are applied to a shadow case scenario later in this chapter and explored in context of potential model extensions. They also are implicit in recommendations to leverage modeled dynamics of violent mobilization for alternative and non-violent outcomes.

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361. As discussed at length in Chapters 2 and 3, repression can provide a strong "Government Fear" disincentive in the short term, but also lays the groundwork for potential "Political Grievances". In model application, a state regime's relative capacity vis-à-vis the challenging force(s) is of crucial import. Repression can augment "Fear" and somewhat minimize adverse "Grievances" and "Militant Legitimacy" effects as long as it can curb further armed violence. If not, low-capacity state repression (such as that exerted by Nicaragua's Somoza regime in the late 1970s) tends to backfire and actually multiplies mobilization effects. Also, a regime ability to maintain economic stability is crucial in the immediate aftermath of repression, countering the potential damages of "Political Grievances". Key elements of this idea emerge in O'Connell (2008); Regan and Norton (2005); and Richardson (2005).

362. Multiple causal relationships in the model reinforce this pacifying dynamic, demonstrating the value of extended ceasefires. While armed groups may gain democratic credibility such a scenario, "Militant Legitimacy" suffers, "Government Fear" increases (due to a downturn in violence), "Political Grievances" wane, and "Economic Grievances" often fade if the state economy sees a peace dividend. See discussion of potential ceasefire impacts in Kriesberg (1998); Miall et al. (2000); Pruitt (2009); etc.

363. For armed groups, capacity to provide member benefits is challenged not only in crisis, but also in periods of expansion, when expectations run high and greater competition emerges. In model application, militant groups, not unlike the state, find it difficult to manage participant expectations. See G. Becker (1968); Berman et al. (2009); P. Collier and Hoeffler (1998; 2000); and Weinstein (2007); etc.

To this point, project discussion has addressed three of four research questions (responding partially to the fourth) and supported at least the first two hypotheses. It began by arguing the importance of treating young people as critical social actors. It since has provided strong evidence to support the feasibility, application, and utility of a conceptual model that integrates competing theoretical paradigms. It has shown the analytic shortcomings of singular causal arguments and theoretical paradigms, demonstrating how relative dominance can shift across time and context. And it has shown that competing causal arguments add complementary value within a systems approach, combining to replicate empirical patterns from the case historical record. The next section considers how the causal mechanisms and interactive dynamics underlying violent mobilization may be harnessed and redirected for alternative ends, supporting broad-based peacebuilding and conflict transformation.[364]

<div align="center">Project Implications for Non-Violent
Youth Mobilization and Peacebuilding</div>

Peacebuilding is perhaps best understood in the context of violence. A fruitful instructional activity catalyzed by this research project involves challenging graduate-level university students and workshop participants to role-play as leaders of violent organizations. Teams are tasked to develop youth mobilization strategies for a given

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364. "Peacebuilding" refers not to temporary ceasefires but to process-based transformation: "Engaging with and transforming the relationships, interests, discourses and, if necessary, the very constitution of society that supports the continuation of violent conflict (Miall 2004, 4)." See fruitful engagement of the challenges of youth peacebuilding in Abu-Nimer (1999); Bratic and Schirch (2007); Drummond-Mundal and Cave (2007); Kemper (2004); McEvoy-Levy (2001b); Schwartz (2010); Search for Common Ground (2010); Wessells (2006a); etc. For an overview of peacebuilding theories of change, see Church and Rogers (2006); T. Jantzi and V. Jantzi (2009); Lederach et al. (2007); etc. For discussion and best practices of program assessment, see Briggs (2007); Center for Peacebuilding International (2008); Church and Rogers (2006); and Rahim and Holland (2006); among others.

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non-state rebel group, gang network, strong-armed political party, or military junta.

Wearing these different (and often uncomfortable) hats, many participants comment

that the exercise helps them envision youth participation with far more creativity and

comprehensiveness than other experiences within more traditional peacebuilding and

development exercises.[365]

It begs the question: Why are the "bad guys/girls" usually so much better at

tapping youth motivation, ownership, and leadership than the "good guys/girls", the

well-intentioned governments, non-governmental organizations (NGOs), and civic

institutions serving at-risk communities? The project model offers helpful hints,

demonstrating the causal mechanisms (figure 6-8) likely at work when leaders are

able to effectively mobilize large numbers of youth to engage in sustained violence.

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365. See discussion by T. Jantzi and V. Jantzi (2009) on complementarities of peacebuilding and development paradigms. "Development" in this project refers not only to state-level economic indicators but also more subjective aspects of well-being: "a scenario widely perceived by a country's residents – and political sub-groups – as constructively responding to their needs and aspirations (Richardson and M. Hamilton 2006)." See development debates on growth, participation, and subjectivity in Broad and Cavanagh (2008); Chambers (1997); P. Collier and Dollar (2002); Cooke and Kothari [eds.] (2001); Hickey (2005); Easterly (2001); Escobar (1995); Frey and Stutzer (2002); J. Friedman (1992); T. Friedman (2005); Hirschman (1958; 1984); Lewis (1959); Long (2001); Richardson (2005); Sen (1999); Thorp (1998); UN (2010); and World Bank (2011); etc.
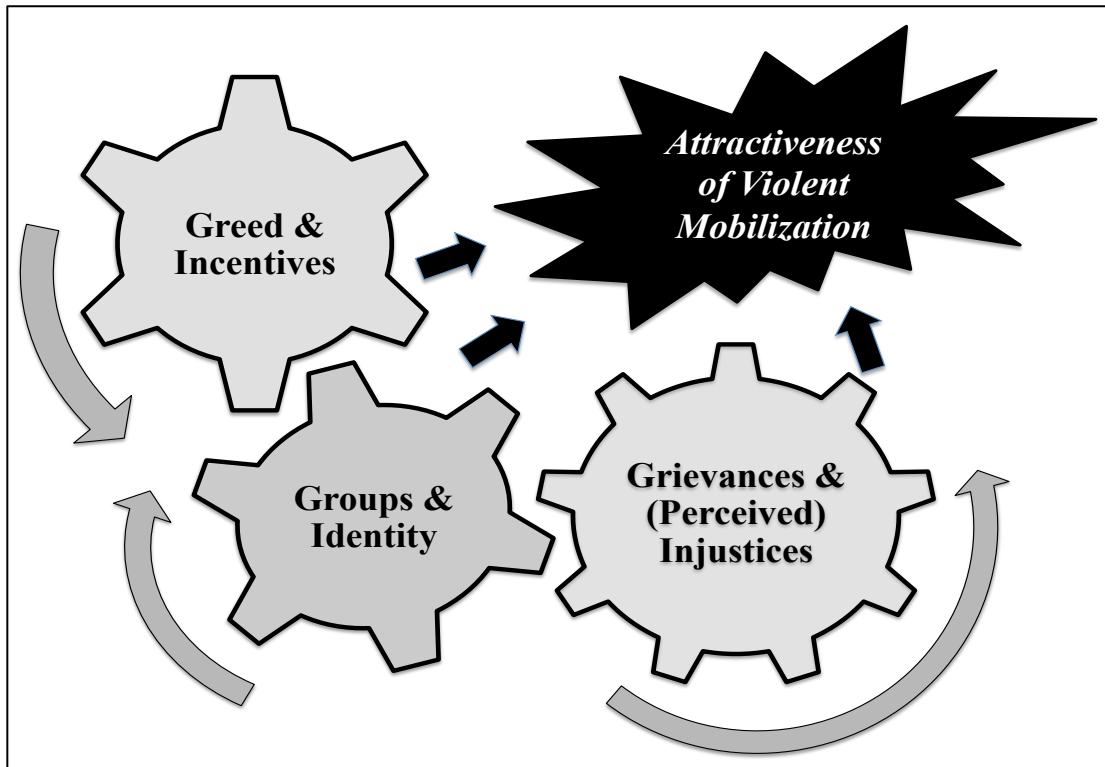
Figure 6-8. Three causal mechanisms that influence violent youth mobilization.

If the *Groups and Identity* mechanism is dominant, effective leaders are likely to map the relevant identity dynamics, power struggles, and demographic tensions that they can leverage within society. Next, they will find ways to access and tap into the trust networks of targeted youth. Finally, via proxies in these networks or using sector-friendly media, they will articulate a compelling identity narrative that draws symbolically on the hopes, fears, and cultural beliefs of these recruits. Once recruits are incorporated, leaders will highlight the importance of ritual and discipline and the rigidity of group boundaries, even as the movement elites seek to curry political and financial support amid broader constituencies (Bob 2005).

Given a dominant *Grievances and (Perceived) Injustice* mechanism, effective leaders again are likely to study emergent societal dynamics, this time with attention

to common youth political or economic frustrations. Movements will play a proactive role in fanning low-level frustration: they can bait ill-fated government responses by creating a crisis or they can market messages of discontent via social networks and media. Movement discourse, highly focused and disciplined, will then blame a high profile enemy for the attendant crises, effectively undermining enemy legitimacy.[366]

If the *Greed and Incentives* mechanism reigns supreme, effective leaders will seek to leverage the expressed needs, desires, and fears of their targeted recruits. They will consider their movement's ability to provide the assessed priorities of recruits – meaning, income, status, or protection – and then outbid their competitors. Effective leaders will use fear tactics and force as necessary, but they are open to provide any service, negotiate any price, or sign any treaty if they believe these will strengthen the group's relative position and help to mobilize necessary recruits and/or resources.[367]

It makes sense to consider how the causal mechanisms of violent mobilization (applied above to effective militant leadership) might be rechanneled to harness youth energy towards more peaceful forms of community engagement.[368] Figure 6-9 shows a corresponding peacebuilding response for each of the model's three mechanisms, followed by brief program descriptions that illuminate general recommendations.

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366. Media analysts have discussed how the Nazis marketed themes of nationalism and martyrdom to frustrated young people via popular film and literature (Rentschler 1995). Recognizable links emerge here with the *Group & Identity* lens.

367. See Korf (2006, 118): "When rebels attach greater weight to pride over greed, they are more inclined to fight and this may trigger violence and bloodshed. If greed dominated the agenda, rebels are more likely to favor stability and a system of low-intensity violence over a degeneration and destabilization of the area."

368. Wood (2003) has argued the importance of understanding the distinct causal processes of civil violence to better design peacebuilding initiatives. Of course, even in societies experiencing the height of civil conflict, the vast majority of young people work quietly on the margins, hardly involved as activists in violence or even dissidence.
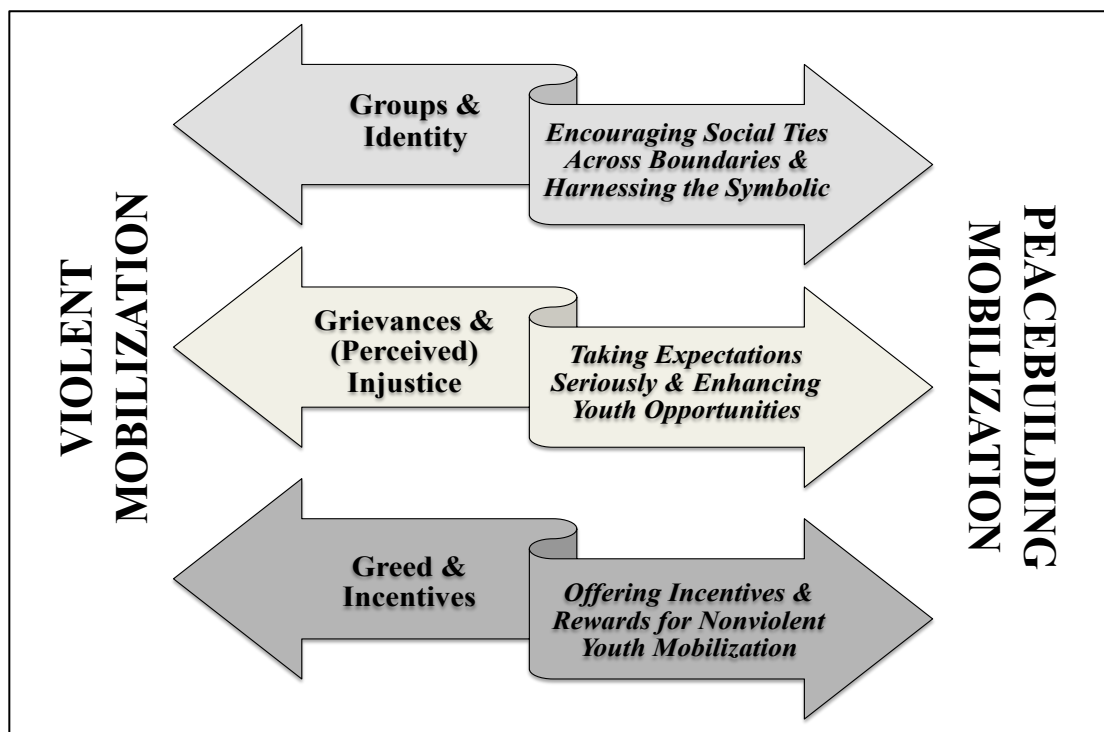
Figure 6-9. Rechanneling the mechanisms of mobilization: From violence to peacebuilding.

<div align="center">

Rechanneling Groups and Identity: Encouraging
Social Ties Across Boundaries and
Harnessing the Symbolic

</div>

When *Groups and Identity* factors are the dominant contributor to violent

youth mobilization, crucial antidotes include communal bridge building and alternate

messaging, especially in contexts with a heritage of polarizing boundaries (Varshney

2001).[369] McEvoy-Levy (2001a, 25) calls for reinterpreting peace activism, especially

in conflict zones: "Rather than seeking for youth that campaign for peace, one might

look to those who are involved in social development, capacity building, and political

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369. Varshney (2001, 369) highlights the importance of crosscutting ties in formal/ associational institutions, not just the informal/ everyday relations stressed by Putnam (1993; 2000), to help prevent ethnic conflict. Writing from a South Asian context, he believes these ignored associations are key components of civic life, combining issues of ascription and choice.

education for youth members of political groups." She highlights (Ibid, 25) a series of youth interface projects creating crosscutting ties in Northern Ireland (Intercomm), South Africa (Youth Against Crime), and the Balkans (Kosovar Youth Council).

Non-profit organization Search for Common Ground is another global leader in this sector, integrating an array of advocacy, dialogue, civic education, and media programming to support youth in crosscutting peace initiatives. In Sierra Leone and Nepal, for example, Search has worked with local youth networks to mobilize civic education, monitor post-war elections, and campaign for greater youth participation. In Burundi and Macedonia, among other sites, its ethnic reconciliation programs have brought together diverse youth to collaborate in humanitarian efforts, sporting events, peace camps and media programming. And its media initiatives have even piqued the attention of global sports conglomerate ESPN (Bennett 2010): "One of the fastest-growing television franchises sweeping Africa is 'The Team'… an all-action series following the travails of an ethnically diverse soccer team over the course of a season." The popular programming franchise, contextualized to local situations, spans at least nine different countries. It is supplemented by a range of youth programming throughout the Middle East, Asia, and Africa, that teaches the "common ground approach" and targets influential actors in at-risk communities to facilitate symbolic and sustainable non-violent change (Search for Common Ground 2010).[370]

The City Montessori School in the Indian state of Uttar Predash seeks to nurture in young people a Gandhian vision conducive to de-escalating Muslim-Hindu

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370. Lederach (1996, 46-50) highlights the peacebuilding importance of influential middle-range actors, who can access both elites and grass roots level.

tensions. The system has been touted as "a way to educate socially conscious citizens for the 21st century" (European Centre for Conflict Prevention 1999: 277). Started in 1959 with 5 children, City Montessori is now the world's largest private school with more than 32,000 students. It focuses on bridging cultural divides and building life capacities among local children and youth. This has proven fruitful during periodic outbreaks of ethnic violence: the community surrounding the school has been a haven and positive exception in difficult times. The school was awarded the UNESCO Prize for Peace Education in 2002 (Bajaj 2010, Lin et al. 2008), and highlights the value of formal and informal education initiatives that build inter-communal social capital in conflict, post-conflict, and at-risk youth settings around the globe.

In the two country cases analyzed for this project, there are specific examples of programs that encourage social ties across boundaries. In Sri Lanka, initiatives that have creatively responded to the island's "uncivil society" (Bastian 1999) include nationwide peace advocacy movements, youth-involved national media projects, and the retooling of development/ humanitarian NGOs to integrate a peacebuilding lens. Peace advocacy groups such as the National Peace Council, [371] Foundation for Co-Existence,[372] and Sri Lanka First were established during latter years of the extended

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371. The National Peace Council, established in 1995 as an umbrella group of diverse NGOs collaborating to halt election violence and calm inter-religious tensions (Orjuela 2003), consolidated into a public advocacy campaign for non-violent solutions during the 2002-2006 peace process.

372. The Foundation emerged in 2003 as a "peacebuilding specialist" organization, using its high profile leadership and expertise in mediation, early warning systems, and human security lobbying in the capital and the conflict-affected Eastern Province to leverage significant funding from external donors (Walton 2008, 156).

conflict between the government and the LTTE.[373] Based on shifts in the scope of

violence, the availability of external funding, and the level of resistance from state

authorities (as well as conflict profiteers and political spoilers), these groups often

were forced to adapt advocacy strategies, relying on more subtle messaging and

scaling back their programming (Briggs 2007; Walton 2008, 158).[374] In the media

realm, Young Asia Television has been on the air since 1995, offering young people

greater voice on national issues and introducing innovate "peace-casting" to advocate

ethnic co-existence priorities (Abeysuriya and Mayer 2001; Ahamed 2004; etc.).

Finally, several international development and humanitarian NGOs operating in Sri

Lanka began to integrate a more intentional peacebuilding lens during the island's

peace process from 2002-2006. Examples include CARE and Save the Children

(Abu-Nimer 2003; Briggs 2007; Hart 2002; etc.).[375]

In Nicaragua, relevant bridge-building initiatives during the civil wars of the

1970s and 1980s included the creation of transnational solidarity networks and faith-

based consultative support for conflict party dialogue.[376] Examples of solidarity-based

groups included the pacifist Mennonite Central Committee and other transnational

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373. Sri Lanka First, a coalition of top business executives alarmed by the conflict-induced economic downturn, organized mass communication efforts like the "Hands Across Lanka" campaign to raise awareness of a potential "peace dividend" (Marikaar 2005). According to Mayer and Salih (2006: 570) "business-led advocacy helped to bring a pro-peace government to power" in late 2001, but thereafter groups toned down the lobbying and largely surrendered the peace process to politicians.

374. Few public advocacy campaigns targeted at-risk and marginalized youth from Tamil and Sinhalese communities, focusing their attention on adult and elite stakeholders (M. Hamilton 2003).

375. A national organization that has long sought to integrate peacebuilding and participatory development programming in Sri Lanka is the conspicuous *Sarvodaya Shramadana* movement, which is treated in forthcoming mechanism discussion. According to Abu Nimer (2003), "There are more sustainability mechanisms if you introduce peace building into the development context."

376. Young people, who composed the majority of combatants, received very little emphasis in these policy and programming initiatives.

advocacy groups like Witness for Peace and Washington Office on Latin America,

among others (Conradi 2007; etc.). Faith-based groups also played a critical role in

mediating dialogue between conflict parties: the Catholic Church (via its bishop) led

the National Reconciliation Commission to engage *Sandinistas* and *Contras,* while

the Moravian Church, with support from the Mennonites and other faith-based actors,

led the Conciliation Commission between the governing *Sandinistas* and a coalition

of breakaway indigenous groups (known as YATAMA) from Nicaragua's Caribbean

coast (Wehr and Lederach 1991). The post-conflict era also has seen collaboration-

based reconciliation initiatives for ex-combatants and programming for marginalized

youth sectors. Amid downsizing of the armed forces, groups like *Red de Promotores*

de Paz y Desarrollo (translated the "Network of Peace and Development Promoters")

facilitated reconciliation trainings and provided services to demobilized soldiers from

both sides of the war (Centro de Estudios Internacionales 1996).[377] And with growing

gang mobilization and significant gender-based violence in the post-conflict era,

groups like CEPREV (the Center for the Prevention of Violence) have targeted youth,

and especially young men, from at-risk communities in re-socialization and

reconciliation workshops (Rocha and Rodgers [eds.] 2008; Zalaquett and Wheelock

2006; etc.).

These activities should not be considered simply as isolated public advocacy

and dialogue programs, but also as inherently political interventions (Kemper 2004,

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377. The political leadership of Barrios de Chamorro integrated fighters on both sides into a singular military structure, but also radically downsized the security forces. This resulted in mass demobilization of combatants and a need for NGO support. According to Frederico Mayor, former UNESCO Director General, "Yesterday's soldiers of war can become tomorrow's soldiers of peace...they too should be given the opportunity to engage in the process of peace (Centro de Estudios Internacionales 1996, 3)." See discussion of the politics of soldier demobilization in Campbell (2003).

36-56). Whether they utilize interpersonal relationships, mass media, or education,
they seek to change strategic messaging and widen the relationships and discourses
available to young people, which is particularly crucial in countries consumed by,
recovering from, or on the brink of *Groups and Identity*-induced civil violence.[378]

Rechanneling Grievances and (Perceived) Injustice: Taking Expectations Seriously and Enhancing Youth Opportunities

If *Grievances and (Perceived) Injustice* is dominant in a given system,
policymakers need to find ways to foster opportunity and manage young people's
political and economic expectations. At a global level, youth tend to be channeled
into low-paying temporary jobs, and it is difficult for most to access necessary credit
for self-employment and entrepreneurship. In active or post-conflict zones, youth are
more marginalized, often unable to reintegrate fully in local civil society.

There is a need to make credit available to youth entrepreneurs, create multi-
sector partnerships, and strengthen collaboration between youth and elder community
stakeholders. Barker (2005, 16) highlights the needs expressed to him by young men
in Brazilian *favelas*: "…participation (and) concrete opportunities for young people to
engage in around them in meaningful ways and in the process to acquire skills
necessary for becoming skilled workers and active citizens."[379] Beyond simply
making resources available, this requires a complex process: tapping into the social

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378. For additional peacebuilding program descriptions, see also Academy for Educational Development (2005), European Centre for Conflict Prevention [ed.] (1999), M. Hamilton (2007), Search for Common Ground (2010), Wessells (2005; 2006a), and Garred [ed.] (2006), among others.

379. Barker (2005, 16) continues, "Many young men need immediate income and status. They need jobs, perhaps in the form of public works projects that offer some status and immediate and stable income, while they also acquire work experience and skills for advancing in the workplace."

networks of marginalized youth, building up credibility, providing them with relevant training, and cultivating in them a hope and expectation for success and a better life.

In recent years, there has been increased institutional support for youth leaders catalyzed by global non-profits, youth-sensitive government agencies, and cutting edge social enterprises. Inspiring profiles are available on websites of Ashoka (2012), Echoing Green (2012), International Youth Foundation (2011), and Youth Business International (2011), among other actors trying to build youth social entrepreneurship capacities as a means to "expand the pie" and manage limited societal expectations.

Employment, of course, is not the only concern of contemporary youth. Polls by the United Nations (UN 2002; 2003; and 2005; UNDP 2010) and the World Bank (2006), among other institutions, show a spectrum of youth priorities for a meaningful future, including enhanced educational opportunity, better health care, environmental stewardship, and greater political participation.[380]

In the Sri Lankan context, the *Sarvodaya Shramadana* Movement, established in 1958 and grounded in Gandhian and Buddhist principles, has grown into arguably the largest and most participation-rich NGO on the island (Bond 2004). *Sarvodaya*, translating to "universal uplift" or "progress of all", has sought to bridge class and ethno-religious divides for nearly fifty years through its capacity-building trainings, micro-enterprise and loan programs, environmental stewardship initiatives, and other forms of spirituality- and sustainability-infused programming (A. Ariyaratne 1982; V.

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380. This contrasts with the older generation, "which overwhelmingly rated as its primary concern job opportunities (Fuller 2003, 22)."

Ariyaratne 2004; N. Johnson 2006; etc.).[381] Broader government and private sector attempts to catalyze youth job creation, as discussed in Chapter 4, have met with challenges due to the continued mismatch of employment expectations.[382] Expensive attempts to improve youth employment access through electronic job databanks and e-applications misread the networked and politicized dynamics of employment on the island, so these resources tend not to be utilized by the majority of at-risk youth.

In Nicaragua, there is no comparable (apolitical) network that can match the grassroots mobilization of *Sarvodaya* from Sri Lanka, mainly due to the continued network dominance of *Sandinista* loyalists and their varied political opponents. Still, expectation-savvy NGOs like CEPREV, the Mennonite Central Committee, and some members of the Federation of Nicaraguan NGOs Working with Children and Youth (CODENI), are working to address youth grievances and create new opportunities. Employment remains a major challenge, so youth out-migration and remittances are crucial to the current economic situation (as discussed by Orozco 2005; 2008).

There is need for a policy focus on youth economic, civic, and sociopolitical participation, especially if *Grievances and (Perceived) Injustice* has been activated.[383] Priorities include expectations management (avoiding temptations of over-promising) and social reintegration of youth vulnerable to conflict and violence. Youth job access

381. Alongside its steady growth and vast national and global influence, *Sarvodaya* has faced suspicions from the Sri Lankan government (including periodic allegations of its LTTE support) as well as legitimacy questions among Tamil youth. According to Walton (2008, 151), problematic is the wide "perception that it is a Buddhist Sinhalese organization and therefore unable to play effectively foster reconciliation between Sinhalese and Tamil communities."

382. See relevant discussion of educational mismatches and youth job queuing by Seers (1971); Lakshman (2002); Chandra Gunawardena (2002); and Hettige (2010); etc.

383. Even in the 1960s, scholars identified alternative directions for youth mobilization, depending on direction of economic mobility (Holzner 1962).

is a crucial component for social stability, as is a sense of voice and responsibility in

public debates, to enhance a sense of youth civic ownership.

<div align="center">

Rechanneling Greed and Incentives: Offering
Incentives and Rewards for Nonviolent
Youth Mobilization

</div>

When *Greed and Incentives* are dominant factors, some type of social change

is likely forthcoming. Youth mobilization need be violent, and political outcomes can

be transformative for societies in transition. In recent years, youth have been at the

forefront of democratic and relatively non-violent revolutions in the Middle East

(Egypt, Tunisia, etc.) and the former Soviet Union (Serbia, Georgia, and Ukraine),

among other global sites.[384] Not dissimilar to the young recruits of more violent

armed movements, frustrated expectations usually played a key role in mobilizing

organized political action among the educated, otherwise apathetic young people. In

these cases, though, large-scale violence was strategically avoided as broad social

groupings (with assistance of internal and external brokers) came together to

incentivize non-violent political engagement and social transformation.[385] Youth-

driven NGOs proved crucial in mobilizing protestors, providing logistical support,

and participating as a "first wave" of non-violent protestors (Kuzio 2006, 366).

Elsewhere, policymakers are beginning to recognize the conspicuous absence

of youth sectors in national decision-making processes, with emphasis on opportunity

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384. Youth protests and democratization processes in Nepal also merit attention, especially in the post-conflict era as youth have demanded a voice in national policy priorities (Mulmi 2009) .

385. See operational discussion by Bunce and Wolchik (2006, 55-65), Kuzio (2006), Ottaway and Hamzaway (2011), Popovic et al. (2006, 16-145, 169-179), Stephan and Chenoweth (2008, 25-44), Watkins (2011), and Wolman (2008), among other analysts of these movements.

structures (related to *Greed and Incentives*). In recent years, the UN, ILO, and World

Bank have established a global Youth Employment Network and sponsored Youth

Employment Summits around the globe (UNDP 2006, 37). At least twenty countries

are implementing national action plans to address youth concerns, and there has been

related growth in youth networks supported by NGO and private sector organizations

(Betcherman et al. 2007).[386]

Youth-focused policy, to be effective, requires youth monitoring to support

the incorporation of youth goals in public policy. This also ensures that young people

are treated not as a separate niche, but rather as an integral part of the larger system

(Hart 2004; Hart et al. 2004; Newman 2005; etc.).[387] Action Plans developed in Brazil

and Indonesia have provided helpful templates for other national initiatives (Youth

Employment Network 2012), and transnational youth networks are now beginning to

communicate best practices and share the lessons they have learned.

In Sri Lanka, several organizations have undertaken the participation of young

people as an empowering response to war-related trauma to restructure the organizing

incentives underlying armed conflict. For example, the Butterfly Garden is a Jesuit

sanctuary that creatively addresses child and youth trauma within the Eastern city of

Batticaloa, allowing alternative forms of cultural expression and mobilization even at

the height of local conflict (Chase 2000; Hart 2004). In the same war-torn region, the

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386. Jimenez and Murthi (2006, 40) reinforce advice of the youth-focused 2007 *World Development Report* (World Bank 2006): "Countries can help by broadening opportunities for the young to develop human capital; by helping them choose among those opportunities; and by providing second chances when the choices are missed or do not work."

387. Mclean Hilker and Fraser (2009, 7) highlight importance of youth ownership in the design and implementation of development and peacebuilding programs, warning that at-risk youth do not automatically benefit from "general" or non-targeted development programs.

Vivehananda Children Development Club, piloted in 1999, is cited as a "model of

participatory programming" (Hart 2002, 37): youth are actively involved in all stages

of program development, whether they are building a community center, leading a

campaign to restore local bus service, planning inter-communal "youth action group"

events, or leading community volunteer initiatives."[388] A more formal example of

youth participation is the Sri Lankan Youth Parliament, inaugurated with elections in

2010. Supported by the Ministry of Youth Affairs and Skills Development, it seeks to

educate young people on parliamentary process even as it offers a national platform

to express their ideas and concerns. All of these programs – the Butterfly Garden, the

Vivehananda Children Development Club, and Sri Lanka Youth Parliament – seek to

restructure youth mobilization incentives and help facilitate participatory "process",

which have been documented as critical ingredients for successful peacebuilding and

development programming, according to a broad evaluation of (US) donor-funded

initiatives in Sri Lanka during the peace process from 2002-2006 (Briggs 2007).

In Nicaragua, youth trust networks remain largely confined to longstanding

political party associations, religious communities (Catholic and Evangelical), and

neighborhood gang associations.[389] To redirect incentives amid high unemployment,

entrepreneurial NGOs like FINCA are beginning to move beyond the apparent risks

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388. According to Hart (2004, 27), these empowering activities allow children and youth "to channel their energy and commitment into addressing issues of abuse, discrimination and injustice that lie at the heart of the conflicts that surround them". Moreover, his community-based analysis has found "evidence to suggest that this industriousness and community spirit on the part of children may mobilize adults towards community-oriented action (Hart 2002, 39)."

389. See discussion from Centro de Investigaciones de la Comunicación (2001); Conradi (2007); DIRINPRO et al. (2004); Maclure and Sotelo (2004); Rocha (2010); Rodgers (2005; 2006); Téllez (2009); Zalaquett and Wheelock (2006); etc. Interestingly, a recent quantitative survey study by Olate (2009) found Nicaragua in the upper tier of Latin American countries in its formal volunteerism; however, the article fails to provide sufficient contextual discussion to explain this result.

and target youth in microcredit initiatives that support self-employment (Darsney et al. 2005). There also are promising new programs such as the *Jóvenes Constructores de Centroamerica* ("Central American Youth Builders Project"), being implemented by Catholic Relief Services and YouthBuild International. The initiative takes a multi-prong youth empowerment approach, constructing participant and community assets via "an integrated 6-month program that builds youth jobs skills and life skills, trains them in a vocational trade and guides them through a community service and reconciliation experience (Schuster et al. 2011, 2)." The current *Sandinista* governing regime also is prioritizing youth opportunity, particularly for its party loyalists.

Writing from another post-conflict context, noted social psychologist Wessells (2006a, 135) articulates a common refrain, "Even in conflict zones racked by poverty and other stressors, an empowerment approach backed by modest inputs can mobilize young people for development rather than fighting, enable them to achieve a positive role in their villages, strengthen attitudes and skills conducive to nonviolence, and build the peer support and life skills required for establishing meaningful lives as civilians."[390] In sum, rechanneling *Incentives* is a crucial element of making non-violence attractive for youth in difficult circumstances.

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390. The dreaded "identity reconfiguration" strategies of armed groups (in Angola, Mozambique, Uganda, Sierra Leone and elsewhere) do not usually assume that youth are "empty vessels", even in cases of force conscription; rather, child and youth armed actors are understood as agents who over time personify the complementary roles of victim and perpetrator (Honwana 2006; Mclean Hilker 2009; Shepler 2004 and 2005c; Wessells 2006a; 2006b; etc.). They also are survivors and agents with the potential to contribute to post-conflict community development and conflict transformation initiatives, as documented by Bragg (2006) for Liberia, ILO-IPEC (2007) for the Democratic Republic of Congo, and McEvoy and Shirlow (2009) for Northern Ireland, among others.

A Multi-mechanism Approach to
Development and Peacebuilding

It is natural for program managers and policymakers, based on their previous

experiences of success (and failure), to resonate with a given peacebuilding approach

over its alternatives. This catalyzes the temptation to employ the same programmatic

framework in all scenarios, regardless of the actual needs on the ground (not entirely

unlike the singular lens of a many academic theorists). According to Mclean Hilker

and Fraser (2009: 43), effective programming requires "a comprehensive context-

specific analysis of the particular youth population and the particular risk factors**."**[391]

Moreover, based on insights from the project model, there seem to be implicit

dangers in clinging too closely to any given program initiative or recommendation,

even if it worked well in the recent past or even in the present. The mechanisms of

youth mobilization are dynamic, and their relative dominance is expected to shift

across contexts and across time. Wise policymakers are encouraged to take a

somewhat blended approach to their interventions. Of course they should respond to

contextual needs of the moment (having conducted a needs analysis); however, they

also should hedge a bit to manage other mechanisms, which dormant for the moment,

could quickly rise to prominence.

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391. Institutional reviews of youth programming in conflict zones (UNDP 2006, USAID-CMM 2004, etc.) often lack a clear analytic link between specific causes of conflict and priority programmatic responses.

Project Applications to an Alternative Global
Case Scenario: Israel-Palestine
After the Oslo Accords

This project offers analytic tools that may help to explain and trace relevant

dynamics of violent youth mobilization in other global contexts, even without

simulating a full-scale model extension. This section discusses how model lessons, in

particular the model's causal mechanism structure and identified leverage points, can

be applied to an alternative mobilization scenario: the controversial case of Israel-

Palestine (with emphasis after the Oslo Peace Accords signed in 1993).

Most analysts of the communal conflict in Israel-Palestine highlight the role

of religious and ethnic difference (*Groups and Identity*) in continuation of hostilities.

However, based on insights from the current project, *Grievances and (Perceived)*

Injustice should also be explored as a co-contributor and reinforcing mechanism of

radicalized youth mobilization within both Palestinian and Israeli communities.[392]

The economic and political alienation experienced by sub-sectors of Israeli

and Palestinian groups exacerbated inter-communal tensions and in time helped to

undermine the groundbreaking Oslo Accords signed by Yitzhak Rabin and Yasser

Arafat in 1993.[393] Dialogue programs flourished soon after the accords, but their

participants drew mainly from wealthy, secular, and peace-leaning sectors of Israeli

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392. This brief analytic description seeks to avoid McGovern's (2011, 350) critique of a high profile economist he accuses of over-simplifying West African conflicts: "Arguments that were questionable but insightful veer off into the factually incorrect, analytically upside-down, and politically dangerous."

393. According to Benvenisti (1997, 227), the accords represent a "heroic attempt to impose an interstate solution and suppress the inter-communal realities". Benefits included increased political space, blooming peace expectations, and mutual recognition of Israeli and Palestinian leadership.

and Palestinian societies.[394] In both communities, policymakers paid insufficient attention to the political and economic "losers" of the period and failed to forecast or manage potential spoilers.[395]

Among Palestinians, wide swathes of the youth population could be classified as "losers" during the Oslo period (1993-2000), when the rhetoric of freedom and opportunity failed to meet expectations. Arafat's Palestinian Authority lost grassroots legitimacy for its failure to deliver on political promises and widespread corruption, including elite and age-entrenched favoritism. Islamist group *Hamas* filled the void, providing needed social services in the West Bank and Gaza.[396] With its powerful rhetoric and action orientation, *Hamas* gained credibility among disillusioned and powerless youth, especially as Israelis ramped security measures and the Palestinian economy unraveled. By 1998, the security enclosures limiting access to Israeli cities contributed to a fifty percent increase in Palestinian unemployment, decreasing overall living standards by at least a third as compared to pre-Oslo levels (Palestinian NGO Network and Center for Economic and Social Rights 1998).[397]

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394. Israeli organizations like Peace Now, Women in Black, and Neve Shalom partnered with Palestinian community groups that had mobilized during the first Intifada. Abu-Nimer (1999, xvii), warns against "immediate, naïve acceptance" of dialogue processes. Inasmuch as it can help resolve structural problems and transform unhealthy relationships, it also can co-opt voices and maintain a status quo oppressive to those outside walls of power. Critics suggest that the Israeli state's co-existence priorities emerged in response to perceived anti-democratic threat of Rabbi Meir Kahane in the 1980s and the "rise of radical and extreme racist attitudes among Jewish youth (Ibid, 38)."

395. Religious and nationalist extremes in both communities were left out of the process.

396. Roy (1993, 29) observed early on, "*Hamas* runs the best social service network in the Gaza Strip…(and they) clearly understand that under present conditions influence on the ground is first gained through social work, then through religious work, and only in the end through political work."

397. These statistics resonate with Sayre's research (2009), showing quantitative links between worsening economic conditions and heightened suicide bombing rates in Israel-Palestine (1995-2004).

Ultimately, the Oslo Accords failed for several reasons: the reciprocal acts of violence by political spoilers, out-of touch governance by both Israeli and Palestinian leadership, and consistent failure to manage political expectations and the perceived fundamental issues (Nasser-Najjab 2006).[398] Its demise culminated in 2000 with the second Palestinian Intifada. Youth participation was central to this "throwing off" period, and Israeli repression became a renewed staple in Palestinian areas.[399] Up to ninety percent of young men in Gaza experienced home raids by the Israeli security forces, some sixty-five percent witnessed a "father or a neighbor's father being beaten or humiliated", and a quarter were imprisoned (Barber 2001a, 217, 222).[400] Repression left its mark on Palestinian youth, as have the consistent militant responses, and the last ten years have seen enhanced levels of violence and armed struggle, both towards Israelis and within the Palestinian community itself.[401]

On the Israeli side, social uncertainty increased after the Oslo Accords due to enhanced political and economic competition, which stemmed both from the Accords and a liberal restructuring of the economy. This created many self-perceived losers,

398. Examples of spoiler acts include Baruch Goldstein's 1994 Hebron attack, Yigal Amir's assassination of Yitzhak Rabin, and *Hamas* terror campaigns throughout the 1990s, and in particular, the 1996 bombings that led to Israel's election of hawkish leader Benjamin Netanyahu. According to Lazarus (2010), "These acts of horrific and devastatingly effective political violence… dominated headlines and public consciousness, and became the defining political counter-images of the period… undermining public support for pro-negotiation leaders and their agenda at critical moments."

399. Norman (2010) stresses non-violent aspects of the Palestinian Intifada, especially at its outset. According to Barber (2001a: 217), ninety percent of Gazan youth "took part in demonstrating, throwing stones, etc., overshadowing the rates (15-20 percent) of which youth had participated in other social movements, such as those in South Africa and Northern Ireland and the U.S. student protests."

400. Ricks (2006) addresses young female perspectives on violence and the Intifada.

401. Since the electoral victory of *Hamas* in 2006, there have been a series of subsequent struggles for governance, control, and communal credibility in the Palestinian areas. It remains uncertain whether a new generation of Palestinian young people will encounter greater political and economic opportunities, or only cement the bitterness cultivated by years of "peace" and open conflict.

even as the economy grew as a whole. The economic reforms undertaken to increase global competitiveness tended to widen disparities in status, education, and income levels among key Israeli demographics (Peled 2000, 6). Non-elite Jewish youth came to classify Palestinians as potential threats in a tight labor market. Other factors may also contribute: in historical perspective, the surest path for social mobility among Israeli minorities has been military service, incentivizing a hawkish policy approach.

Ideological fault-lines for the peace process exacerbated long-standing class, ethnic and religious divisions among Israel's Jewish citizens; in particular, the Oslo Accords highlighted the "semi-peripheral" status of *Mizrahim* (Jews with origins in Muslim countries), who were forced to compete for jobs not only with the dominant *Ashkenazim* (Jews of European origin) but also with Palestinians.[402]

Peled (2001, 3) argues that *Mizrahi* support for conservative religious parties and their strong opposition to Oslo and subsequent Palestinian demands stems less from their "yearning to recapture a lost, primordial past" (*Groups and Identity*) so much as frustrated "rejection of Labor Zionist ideology which has been utilized to legitimate their deprivation in the present" (*Grievances and Perceived Injustice*).[403]

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402. See Kemp et al. (2004); Peled (2001); Yiftachel and Erez Tzfadia (2004); among others. Israeli politician Peres (2000: 238) mourns, a "misunderstanding among the old-timers and the new immigrants from North Africa has hung like a dark shadow over Israeli society". See Yifatchel (2000) for a far more critical interpretation.

403. Shalev et al. (2000, 53) portray a conducive "political opportunity structure" for right wing mobilization not only due to "integrative effects of Zionist ideology", but also competitive class and ethnic relations and the failure of more progressive parties to create winners among those who self-perceived as underprivileged.

Despite closer cultural ties to the Arab world, the minority group consistently has
lobbied for a singular Jewish identity and a hardline approach towards Palestinians.[404]

Large numbers of Palestinian and Israeli youth have been mobilized as radical
community activists and armed combatants, so it comes as little surprise that tensions
run deep in and across communities.[405] The most common responses are unlikely, in
isolation, to provide solutions: peacebuilders' efforts to facilitate inter-communal
understanding (*Groups and Identity*) and a competing hawkish pursuit of security via
fear tactics (*Greed and Dis-Incentives*). A more sustainable approach, given the case
scenario just described and leverage points identified in the project's model, calls for
balancing these priorities with *Grievances and (Perceived) Injustices*. Policymakers
need to understand, respond to, and manage frustrated expectations of at-risk youth,
including potential spoilers, as part of a comprehensive framework. Consider this
admittedly unscientific application of the five model leverage points to the Israel-
Palestine case scenario:

1) *Rapid changes often matter more than initial values or long-term trends,
   so effective leaders pay attention to expectations and emergent tendencies:*

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404. Two other minority groups that contribute to Israel's complex "ethno-religious tribal
politics" (Lazarus 2010) are Russian Jews (a community of 1 million plus immigrants that have arrived
since the end of the Cold War) and "national religious public" (which comprises the most reliable
right-wing voting bloc). Both communities, in their voting records and public discourse, have
consistently opposed Palestinian negotiations, though perhaps for distinct organizing motives. Lazarus
(Ibid) argues that the major Russian immigrant party of the 1990s (*Yisrael Ba'aliyah*) was hawkish in
its orientation and that its successor (*Yisrael Beitenu*) remains "ethnically chauvinist and employed
explicit and deliberately anti-Arab rhetoric to considerable electoral success in the 2009 elections."

405. Children and youth dominated the ranks of Jewish resistance against Hitler in World War
II and remain at the forefront of contemporary Palestinian resistance, according to Rosen (2005, 133).

The concurrent political and economic reforms enacted during the Oslo period were a drastic change for both communities. They offered initial promise, but soon created dislocations and deflated the expectations for marginalized Israeli and Palestinian stakeholders. This opened the door for intermittent, then rapid upswings in protests, acts of militant violence and state repression, which further eroded political-economic opportunity. In combination, this rhythm of events point to an overall lack of stability in the system. Leaders in both Israeli and Palestinian communities have proven unable to facilitate change management processes without falling victim to (or producing themselves) vicious cyclical of disruptive shocks.

2) *The state's inability to manage political and economic expectations, especially amid crises, tends to multiply identity-based mobilization.*

Frustrated economic expectations, due to competition and incongruence with past experience, seem to have influenced many Israeli and Palestinian youth. Moreover, rhetoric of peace and prosperity went unfulfilled, failing to improve the daily lives of many in both communities and undermining political trust.[406] As per the model structure and brief case narrative, discontent seems to have been fanned by political entrepreneurs at the extremes of both communities. Growth in *Grievances and (Perceived) Injustice* was interpreted through an identity-based lens. Political and economic crises fed "Militant Legitimacy" and multiplied the overall effects for subsequent *Groups and Identity* mobilization.

406. See discussion of Israeli frustrations with the Oslo-related political and economic reforms in Kemp et al. (2004); Peled (2001); Shalev et al. (2000); and Yiftachel and Erez Tzfadia (2004); etc. Palestinian frustrations with adverse economic outcomes and failed political expectations are treated in Abu-Nimer (1999); Nasser-Najjab (2006); the Palestinian NGO Network and Center for Economic and Social Rights (1998); and Roy (1993); among others.

3) *Successful state repression depends on the concurrence of three factors: high capacity security forces, low capacity militant challengers, and sufficient economic capacity to create winners and limit grievances.*

While most analysts agree that Israeli security forces are among the world's highest capacity militaries, the political decision to employ large-scale repression as initial and ongoing response to periodic *Hamas* attacks and then the second Intifada may have proven counter-productive. Because nearly all sectors of Palestinian youth, especially in Gaza, felt the adverse effects of state repression, very few winners were created. Intended "Government Fear" disincentives quickly converted to "Political Grievances" with the supportive scenario for armed mobilization, characterized by relatively high capacity militant challengers and continued economic challenges.

4) *Violence tends to breed further violence, so its sustained discontinuation by a militant group limits the potential of renewed armed mobilization.*

The Oslo Accords offered opportunity for peaceful entrapment due to promise of discontinued violence. This largely worked for Arafat's Palestinian Authority and Rabin's Labor-led Israeli government regime. However, as with Sri Lanka's Indo-Sri Lankan Accords in the late 1980s, which failed to integrate the Tamil Tigers, the Oslo framework failed to involve and never was fully accepted by *Hamas* and an array of Israeli right-wing groups. They successfully disrupted the "peace" at key turns and flourished amid communal crises of confidence and ramped state repression. Pre- and post-Oslo, the promise of peace has never fully consolidated in Israel-Palestine.

5) *Militant groups who seek to recruit based on financial incentives usually need ready access to large resource pools, whether internal or external.*

Not long after the signing of the Oslo Accords, *Hamas* began to consolidate its community legitimacy by providing needed services that were not provided by the authorities, both Palestinian and Israeli. As organizational strategy turned explicitly towards violence, the group's primary mechanism of armed recruitment was not *Greed*, but a *Groups*-orientation infused by *Grievances*. Still, in order to effectively maintain its payroll, bestow rewards, buy arms, and market its message, the group was forced to look to external patrons to leverage needed financial support. Its relative fundraising success has helped *Hamas* maintain relevance in the wake of Oslo, during the second Intifada, and amid the many internal and external challenges the group has faced before and after winning the 2006 Palestinian elections.

To synthesize, applying project leverage points to the admittedly incomplete shadow case of Israel-Palestine shows the potential value of considering key model concepts without a disciplined simulation. It highlights the role of youth in a complex conflict scenario (complementing more traditional approaches to the problem) and draws attention to the interactive dynamics and potential synthesis of varied theory paradigms.[407] Of course, the case analysis of Israel-Palestine merits further attention (as discussed for model extensions), with need for qualitative and quantitative testing and contextualized model simulation. Still, the brief application of the model in this

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407. The model highlights the crucial role of youth, whose particular grievances and incentive structures tend to be ignored in ethnic and religious discussions of the Israeli-Palestinian conflict as well as other identity-driven global tensions. Regarding the over-emphasis of ethnicity in conflict analysis, McGovern (2011: 354) observes, "Anthropologists and political scientists have shown that there are infinitely many ways to construct competitive difference, from villages to clans to caste, just as every definition of enmity implies a related definition of alliance."

section provides at least a proof of concept for its broader global case applications, especially in light of the more rigorous model treatment of earlier chapters.[408]

Limitations of the Research Project and its Model

The warning that appeared in the previous chapters bears repeating: "All models are wrong (Sterman 2000, 521)." For the sake of practicality and utility, every theory purposefully simplifies complex empirical realities, interprets these data according to certain categories or biases, and ignores inputs believed to fall outside its thematic scope. These potential limitations are, of course, true for the current research project, as with any other.

The project is thus inherently limited by its simplification and quantification of complex and potentially disputed empirical realities. The variables that populate the model are themselves abstractions, even if employing physical elements (such as the number of schools) or common discursive foundations (such as gross domestic product). Much of the model's core structure rests within well-established system dynamics practice, forged by Forrester (1969), Richardson (2005), Richardson and

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408. The Sri Lankan case is subjected to model application and analysis in Chapter 4 and Nicaragua in Chapter 5. Other cases could be analyzed (and perhaps simulated) to test breadth of application for the model's key concepts. Examples of violent outbreak include the diamond-infused conflict fought by children and youth in Sierra Leone during the 1990s (V. Davies and Fofana 2002; Fithen and P. Richards 2005; Hoffman 2006; Krijn (2006); P. Richards 1996; Shepler 2005a; 2005b; 2005c; etc.) and the emergence of *Mara* gangs in El Salvador in the post-civil war era (Arana 2005; Bruneau 2005; Burke 2004; J. Cruz [ed.] 2006; J. Cruz and Peña 1998; Hume 2007; M. Johnson 2006; Manwaring 2007; Wood 2000; etc.). It also is important to consider relevant cases that lack mobilization. North Korea is an important example (if a bit of an outlier), lacking any significant armed mobilization against its long-standing authoritarian regime (Byman and Lind 2010; Eberstadt 2004; Kaplan and Denmark 2011; Kristof 2004; Jung and Dalton 2006; Yoo 2008; etc.). It makes sense to consider the failed revolutionary mobilization by an external catalyst (Ché Guevara) in 1960s Bolivia (J. Anderson 1997; Castañeda (1997); Gall 1967, Taibo (1997); Wickham Crowley 1991; etc.), as well as the non-violent channeling of youth mobilization in Egypt's Tahrir Square in 2011 to upend a long-standing authoritarian regime (Ottaway and Hamzawy 2011; Watkins 2011; and Wolman (2008); etc.

Milstead (1986), Saeed (1994), and Sterman (2000), etc. The relationships between

model variables are rooted in empirical and confirmed theoretical findings, although

some technical reviewers could critique the use of composite indices and table

functions, which are utilized in the model structure as deemed necessary and useful.

In terms of data reliability, challenges emerge due to the model's extended

time horizon and its thematic sensitivity. Confidence limitations are assessed for case

reference data due to the difficulty of gathering reliable and consistent long-run data

for controversial and/or confidential subjects. Examples include historical levels of

violence and state repression, number of militants, militant financial resources, and

cohort employment. A holistic approach is employed for data inputs, with systematic

attempts to evaluate the dependability and biases of divergent sources.[409] As

necessary, data are standardized mathematically, and indices are created to include

alternative, even competing sources. This contributes greater confidence in estimating

reference values of reasonable magnitude, which can act as a testing baseline for

simulation. Equation details are available for key variables in Appendix B, while full

documentation is accessible via the project's online data archive (M. Hamilton 2012).

The project also is limited by the bias, experience, and incomplete knowledge

of its primary researcher/ modeler. Every scholar deals with the challenges of bias;

however, a key benefit of system dynamics simulation is the enhanced opportunity it

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409. Crucial to managing this difficult process is case knowledge cultivated via field experience, interviews and relationships in relevant country contexts. Success also depends on key data sources that act as the project anchors, including Booth (1991), Duff and McCammant (1976), *Statistical Yearbooks* from ECLAC (1976-2010), Grossman (2005), *Military Balance* reports of the IISS (1970-2010; 1972-2010), *Global Terrorism Database* of START (the National Consortium for the Study of Terrorism and Responses to Terrorism 2011), Peebles (1982), MOxLAD (Oxford University 2012), Richardson (2005), UN (1982; 2005; 2007; etc.), Wilke [ed.] (2002), and the comprehensive, if somewhat inconsistent databanks distributed by the World Bank (2012).

offers for model replication and peer critique.[410] Efforts have been made to limit the

realities of bias and counteract dangers of blindness and overreach. As a general rule,

the project follows systematic processes, makes explicit assumptions and caveats, and

documents modeling decisions and data adjustments.

Finally, an inherent limitation is the difficulty of incorporating all potential

data inputs. Boundary-conscious experts may take issue with the multidisciplinary

juxtaposition of themes and theories within the model,[411] but the project ultimately

responds to the research questions. Given the crosscutting nature of violent youth

mobilization, information sources abound, as do competing causal arguments and

potential cases. Efforts were made to consider a relatively wide research scope,

integrating eclectic insights from the disciplines of political science, sociology,

anthropology, economics, geography, psychology, and mathematics as well as

applied fields including conflict resolution, international development, business

marketing, industrial engineering, and organizational management, among others.[412]

Regarding specific data limitations in the model, there are context-specific

circumstances and historical contingencies (both global and local) that fall outside the

parameters of this, or any model. This somewhat limits potential for fully aligning

simulated results to the reference data. A context-sensitive approach, with adjustment

for widely divergent case parameters (as was operationalized for Nicaragua's 1979

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410. Key elements of the model documentation are discussed in Chapter 3, while a full list of variables and reference sources are accessible online (M. Hamilton 2012), also available by request.

411. McGovern (2011, 355) offers what he calls an "anthropological caveat": "In the move to explain causality, the common sense that allows us to decipher correlations in our own societies may betray us if we attempt to apply it where people have a very different sense of what is common."

412. Research emphasis remains in the realm of political science and international relations.

revolutionary transition) is appropriate and necessary for applying a simulation model of this type. Ultimately this model offers the interested researcher less a prescriptive quantitative methodology so much as an integrative analytic framework to observe and interpret context-rich processes unfolding over time.[413] The three mechanisms and six attractiveness factors identified in the model offer a structured "checklist" for analysts to consider the causal factors for any given youth mobilization scenario.

<div align="center">Potential Research Extensions</div>

The project model, in spite of its many limitations, has proven quite useful for analyzing and explaining violent mobilization dynamics in Sri Lanka and Nicaragua over time. Still, a number of extensions merit consideration to enhance the research project's general utility, deepen its analysis, and extend its policy relevance reach.

First, the project could further prove its general utility (as well as hone key elements of its causal structure) by adapting a disciplined model application to other contexts. Potential examples include cases of violent mobilization in the Middle East (Iraq or Israel-Palestine, as previewed here), West Africa (Sierra Leone, Ivory Coast, Liberia) or elsewhere in South Asia (Nepal), or Latin America (El Salvador, Bolivia). Targeted applications that would support model improvement are youth mobilization contexts driven by the *Greed and Incentives* mechanism, and specifically the "War Booty Factor". This factor's economistic causal argument, very influential in the

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413. Zock and Größler (2007: 1) engage a common debate in system dynamics of "when to map and when to model". This modeling project draws on rigorous mapping research of Richardson (2005), igrounded in earlier modeling of Argentine violence (Richardson and Milstead 1986).

contemporary civil wars literature, [414] does not tend to govern the current project.

"War Booty" operates as a dominant causal factor only in the case scenario of the

Nicaraguan Resistance (*Contras*). Therefore, applying the model to resource-fueled

conflicts, such as recent West African diamond wars, could provide insights for these

cases and for the model itself.

There also is potential to strengthen analytic depth through a series of finely

grained extensions, which could prioritize more specific research questions. One

might emphasize rural-urban distinctions across distinct mechanisms or population

sectors. Such an extension could add nuance in distinguishing between the primarily

urban *Sandinista* and rural *Contra* mobilization for the Nicaraguan case of the current

project. [415] Another modification could highlight gender cohort differences, delimiting

male versus female mobilization across time. This configuration would be very useful

especially for contexts in which females do not participate in armed mobilization or

in formal political and economic activities. [416] In Sri Lanka and Nicaragua, though,

young women have played key roles in armed struggle, politics, and the economy,

albeit with lower percentages of participation and with less formal access than their

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414. The resource-driven arguments of P. Collier and Hoeffler (1998; 2001; 2004) are still a lightning rod in the literature. Cited across academic disciplines and causal arguments, the *Greed* emphasis of their work draws harsh criticisms (Intriligator 2004, 8; McGovern 2011, 350-355, etc.) as well as grudging agreement and qualifications (Fearon and Laitin 2003; Urdal 2006, 615-617; etc.).

415. See scholarly discussion of urban-rural differences across the two movements by Horton (1998); Kinzer (1991); Booth (1991); T. Brown (2001); and T. Walker (2000), among others.

416. The gender blindness of the current model, applied to such a scenario, would tend to skew per capita trends for violence, consumption, and employment.

male counterparts.[417] Other potential extensions involve technical modifications to the model to enhance the specificity of variables across cohorts.[418]

Alternative extensions to facilitate cross-case applications and enhance policy relevance would prioritize the completion of all model feedback loops without relying on longitudinal reference data. While these historical inputs proved extremely useful to test model alignment for the two pilot cases treated here, their dependence also limits potential for forecasting simulations and prevents model application to cases that lack reliable data across time. Researchers could utilize the same model structure for these extensions, internalizing highly relevant variables left exogenous in the current configuration.[419]

A related extension could incorporate alternative, more flexible approaches to model simulation, like employing the stochastic probability/ Monte Carlo method, common in system dynamics research, or applying more actor-centric agent-based modeling (ABM). [420] The Monte Carlo method was not incorporated in this project due to likely "noise" of empirical reference data in key feedback loops of the model;

417. The crucial, if uneven role of women in militancy, governance, and development has been analyzed for both country cases. See discussion for Nicaragua (Barrios de Chamorro 1996, Chinchilla 1994, 177-196; Kampwirth 2001, 111-131; and Tijerino 1978, etc.) and Sri Lanka (Alison 2003, 37-54; Bandaraga 2010, 653-667; de Mel 2001, 203-280; Kiribamune and Samarasinghe eds. 1990; Samarasinghe 1993 and 1998; Schalk 1994, 163-195; and Wickramasinghe 2000, 58-65; etc.).

418. Options include cohort-specific calculations for variables such as "Government Illegitimacy Factor of Mobilization Attractiveness" and "Government Fear Factor of Mobilization Attractiveness", now calculated as universal across cohorts before their disaggregation based on the relative political-economic shares of each group.

419. Key variables treated exogenously in the current model, including "Level of Conflict", "Government Repression", "Economic Production", "Employment", and "Consolidation of Militant Authority", could be effectively integrated into the core feedback structure for future case applications.

420. See Monte Carlo discussion and systems application in Hagenson (1990), Lieu and Chen (1998), and Graham et al. (2002), among others. The merits of the ABM approach are documented by Arthur et al. (1997) Axelrod (1997), and Bonabeau (2002), among other rationale choice scholars.

however, it could be applied in future extensions. The latter ABM methodology, which subscribes decision rules to interactive individual actors, also could serve as a promising extension and benefit greatly from the current project's context-rich, multi-mechanism approach (Duggan 2007, M. Hamilton 2010). The model would offer ABM specialists a tested baseline to establish their decision rules and supports specified preference configurations based on "Militant Attractiveness" factors.

Finally, a series of useful model extensions could more explicitly treat conflict and peacebuilding dynamics foreshadowed here. The current research project sought to understand the causes of violent youth mobilization, reproduce reference behavior of two country cases, and weigh the explanatory power of diverse causal arguments. Attention was never fixed on predicting future behavior or modeling internal conflict dynamics, from elite levels of decision-making. The project did not try to simulate non-violent mobilization or unpack economic impacts of violence and repression. These ideas, while intimately related to the current project, merit their own research programs. Explicit treatment of such themes could draw heavily on the current study; however, they comprise distinct scopes of work, which necessitate alterations and extensions to the current model structure.[421]

Conclusion

This project targets the "big question" of violence causation framed at the start of Chapter 1: "What are the factors that motivate young people to take up arms and

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[421]. A recent large-N model that could be integrated to the current project, with greater attention to alternative regime types, is that of Goldstone et al. (2010), which was developed by some of the brightest senior scholars in the field of political science.

mobilize in organized civil violence?" Specific research questions and hypotheses follow from there, grounding the project's analysis in a pair of country case studies (Sri Lanka and Nicaragua). Divergent explanations of armed youth mobilization first are synthesized as competing theory clusters and then identified as complementary mechanisms that comprise a comprehensive explanatory model. Three mechanisms are hypothesized to influence the "Militant Attractiveness" for at-risk youth sectors:

1) *Groups and Identity*;

2) *Grievances and (Perceived) Injustice;* and

3) *Greed and Incentives.*

The causal relevance of these mechanisms and their year-to-year interactive effects are examined in light of empirical case studies from Sri Lanka and Nicaragua. The project's quantitative and qualitative results demonstrate strong correspondence between the applied model simulation and the historical record of youth violence in both settings over an extended time horizon (1960-2010). A major finding is that all three of the mechanisms (causal explanations) are necessary for a "superior story" of armed mobilization. The relative influence of each one tends to shift over time based on interactive feedback effects and changing strategic situations.

In this closing chapter, general recommendations have been offered for global peacebuilding practice, rechanneling lessons from the causal mechanisms of violence. There is a proof-of-concept application of the model's concepts to the shadow case of Israel-Palestine, which is examined without the help of disciplined model simulation. Finally, the project's limitations and potential extensions are discussed in brief.

The need for additional analysis remains, including more rigorous testing of the project model for other global cases. There also is need for more comprehensive tracing of non-violent mobilization and peacebuilding mechanisms, offering the same level of detail dedicated to the inter-relationships of violent youth mobilization.

In the meantime, amid the political and economic crises that are gripping our global communities, it falls to everyone – policymakers, civic and business leaders, parents, and young people themselves – to better understand the complex dynamics of violent mobilization. If we take the time to consider the context-specific features of our *Groups and Identity*, the expectations that drive our *Grievances and (Perceived) Injustices*, and the desires that inform our *Greed and Incentive* structures, it should allow us to deal more creatively and comprehensively with emergent issues. This is especially true if we assume these factors interact as part of a broader causal system.

Drawing on project lessons learned from Sri Lanka and Nicaragua, citizens and policymakers are best served in the long term to treat young people not as threats, but as potential partners, stakeholders, and potential innovators. Only then is there to have any hope to see the civic dynamism, the moral imagination, and the sustainable growth imagined for a common future.[422]

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422. Following Flyvbjerg (2001: 2), the social sciences need "Phronesis", which "goes beyond both analytical, scientific knowledge ('episteme') and technical knowledge or know-how ('techne') and involves judgments and decisions made in the manner of a virtuoso social and political actor."

NICARAGUAN PARTICIPATIVE GRAPHING WORKSHEET:

VIOLENCE AND REPRESSION ESTIMATES, 1960-2010
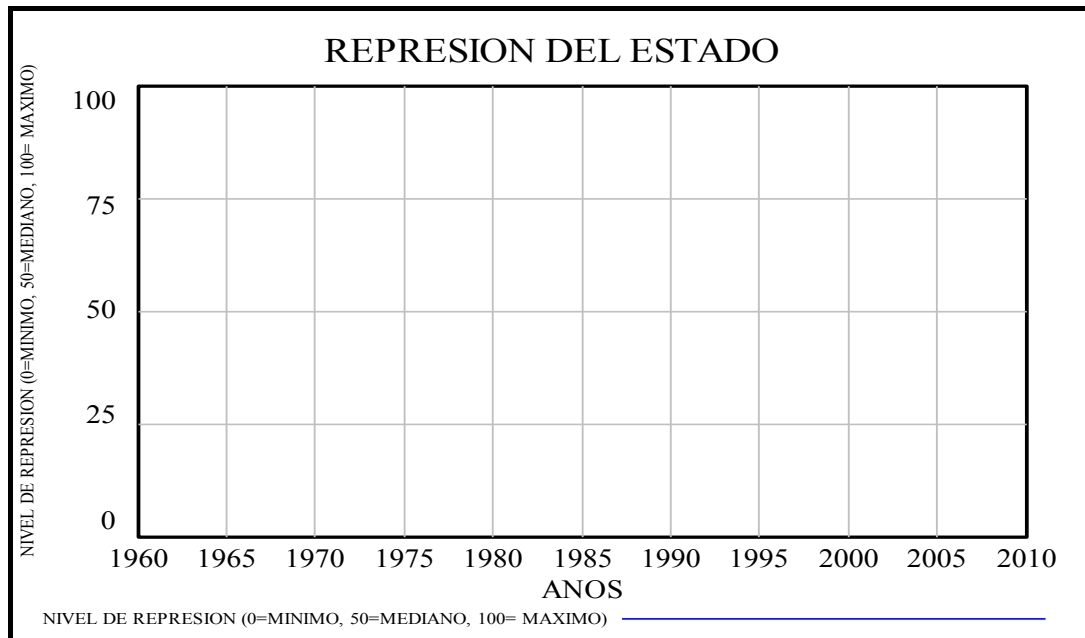
STATE REPRESSION INDEX (0-100)

NON-STATE VIOLENCE INDEX (0-100)

NUMERO DE JOVENES MILITANTES/ PANDILLEROS (NO DEL EJERCITO OFICIAL DE LA EPOCA)

	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
40,000											
30,000											
20,000											
10,000											
0											

ANOS

NUMERO DE JOVENES MILITANTES/ PANDILLEROS
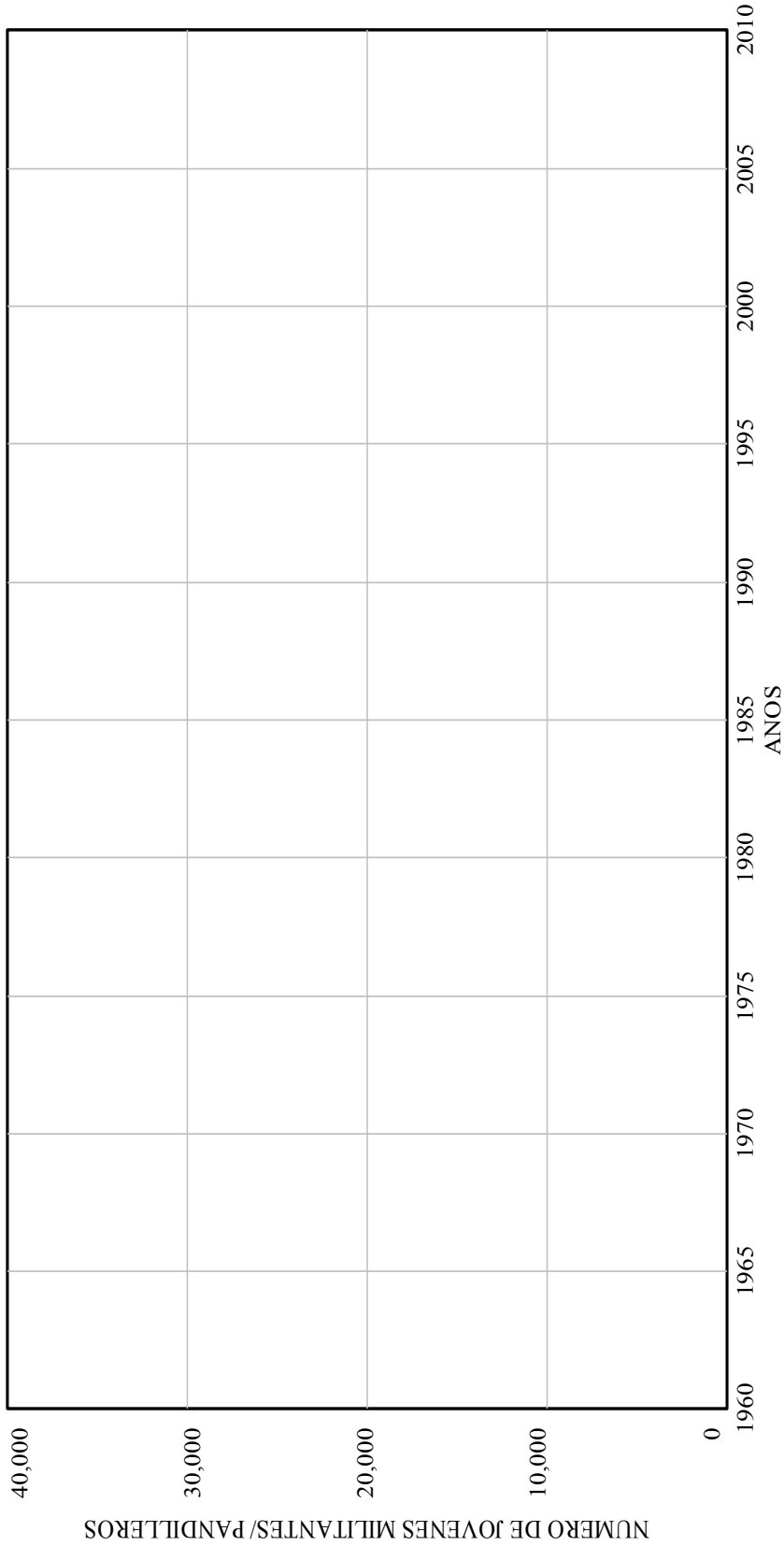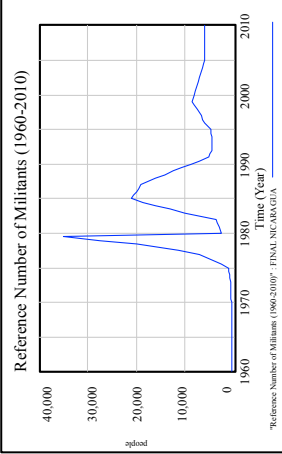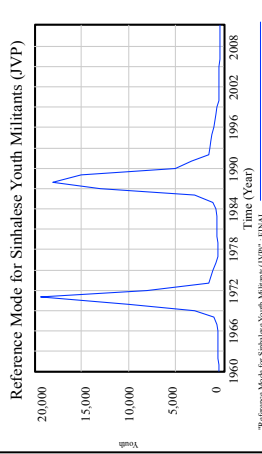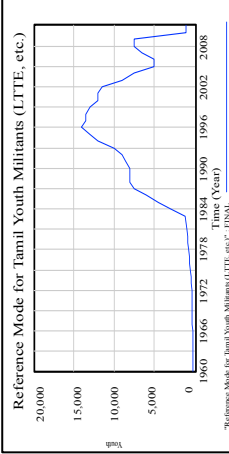
FSLN, CONTRA, RECONTRA, PANDILLEROS (NO DEL ESTADO)
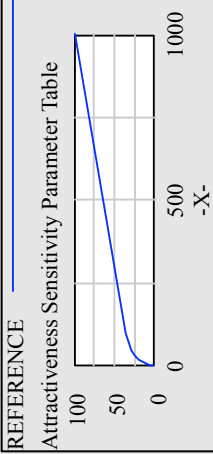
APPENDIX B

DATA AND EQUATION OVERVIEW FOR

KEY MODEL VARIABLES

Variable Name	Units	Variable Description	Source Information (Reference Data)	Model Equations and Other Inputs
1. Number of Youth Militants (Youth Militants)	People	SIMULATED IN MODEL REVIEWED AGAINST REFERENCE DATA GRAPH (1960-2010) Refers not only to those serving on front lines of violent rebellion, but also those who fulfill needed support and administrative functions in an armed group.	Key contributor to all three mechanisms and directly influenced by "attractiveness" for armed participation. Nicaragua Case: Based on aggregate data from project field interviews, a related participative graphing exercise (Appendix A), and consolidated estimates from a variety of qualitative and quantitative data sources in the "Nicaragua Violence Info" file accessible in the online project data archive (M. Hamilton 2012). Key data inputs for *Sandinistas* include Booth (1991); Butler et al. (2005); International Court of Justice (1999); Ortega (1978); Tarttar (1993); Tijerino (1978); T. Walker (2000); Wright (1991), and Zimmerman (2000), etc. For *Contra* mobilization, sources include Booth (1991); T. Brown (2001); Horton (1998); IISS (1970-2010); Tarttar (1993); and Wright (1991). On *pandillas*, sources include Estrada (2008); Kinnear (2009); Rodgers (2005; 2006; 2008), Rocha (2005; 2006, 2010); Serafino (1993), USAID (2006); and Zalaquett and Wheelock (2006). Sri Lanka Case: See details on data consolidation in the "Sri Lanka Violence" file of the project data archive (M. Hamilton 2012). Key sources on Sinhalese JVP militancy include estimates by Blood (1988); Gunaratna (2001); IIISS (1970-2010); JVP Sri Lanka (2010); R. Levy (1988); McGowan (1992); and Obeyesekere (1974), etc., supplemented by interviews in Colombo, Kandy, Hambentota, Matara, and Washington DC. Reference data for Tamil/LTTE militants considers estimates from Bandarage (2009); Gunaratna (1998; 1999); C.A. Gunawardena (2005); Hariharan (2006); Hopgood (2005); IISS (1970-2010); McGowan (1992); Pape (2005); Ramasubramanian (2004, 8); Roberts (2007, 16); the South Asia Terrorism Portal (2010); and Swamy (1994; 2004), along with interviews with LTTE supporters and detractors in Colombo, Jaffna, Akkaraipattu, Washington DC, and other sites.	Simulated Value=INTEG (+Net Youth Militant Maturation+Youth Opposition to Militant Mobility-Youth Militant to Opposition Mobility, Initial Youth Militants)

	DMNL	Model Status	Description	Equation / Factors
2. Attractiveness for Militant Mobilization (Opposition to Militant Attractiveness)	DMNL: Multiplier Index Normalized to 1 for Initial Year	SIMULATED IN MODEL REVIEWED AGAINST THE CASE-BASED NARRATIVES "Attractiveness" refers to the relative likelihood of an actor choosing to join a given group, and six multipliers (causal factors) directly influence mobility. Each mechanism is responsible for two multipliers. EXTREME CONDITIONS TABLE: Sets model boundaries for multipliers. Not active within normal levels, but starts to influence above 20 or 1/20.	Key contributor to all three mechanisms and a direct influence on year-to-year "Number of Militants" "Attractiveness" refers to the statistical propensity for young people to mobilize with an armed *Militant* movement. Growing "Attractiveness" increases the relative rate of incorporation to an armed group by youth currently subscribed to the *Opposition*. The concept of "attractiveness" is adapted from the innovative modeling by Forrester (1969) of the urban dynamics of labor, industry, and housing in decaying US cities. The revised frame utilized in this project addresses at a cohort-aggregate level the circumstances in which joining with a militant group (or alternately with a pro-government coalition) becomes a more or less "attractive" option over time. Using a "multiplier" to effect changes on "normal" rates was popularized in system dynamics by Forrester (1969). The bathtub metaphor conceptualizing "stocks" [level] as reservoirs and "flows" (rates or derivatives) as faucets is common in system dynamics (Forrester 1961; Sterman 2000), but also applies to the field of economics. The concept of "capital" stock emerged from Fisher (1896), and "confusing stocks with flows" is a key critique of the "quantity theory of money" (Kalecki 1971; Robinson 1982).	= Attractiveness Sensitivity Parameter Table("Network Contagion Multiplier: Opposition"*"Militant Legitimacy Multiplier: Opposition"*"Economic Grievances Multiplier: Opposition"*"Political Grievances Multiplier: Opposition"*"Militant War Booty Multiplier: Opposition"* (1/"Government Fear Multiplier: Opposition")) REFERENCE Attractiveness Sensitivity Parameter Table -X- *Attractiveness Multipliers/ Causal Factors:* 1) Militant Network Contagion (+) 2) Militant Legitimacy (+) 3) Political Grievances (+) 4) Economic Grievances (+) 5) War Booty (+) 6) Government Fear (-)
3. Militant Network Contagion Multiplier (Opposition Cohort)	DMNL: Multiplier Index Normalized to 1 for Initial Year	SIMULATED IN MODEL REVIEWED AGAINST THE CASE-BASED NARRATIVES	"Militant Network Contagion" = 1 of 2 Multipliers for the Groups and Identity Mechanism. Model assumptions are grounded in empirical research on the oft-segregated nature of identity networks and political affiliations. The tendency for network-specific affiliations are analyzed by Alex-Assensoh (1997); Bienenstock et al. (1990); Curtis and Zurcher (1973); Etziono (1975); Gates (2002); Lofland (1977); McAdam and Paulsen (1993); Oliver (1984);	= SQRT("Normalized Probable Militant Contact"/("Normalized Probable Unaffiliated Contact")) *"Normalized Probable Militant Contact"=* Network Contagion Parameter Table("Indicated Probable Militant Contact")

REFERENCE

Network Contagion Parameter Table

"Indicated Probable Militant Contact" = ((("% Youth Militants"/"% Youth Opposition")/SMOOTH("% Youth Militants"/"% Youth Opposition",10))*("% Youth Militants"/SMOOTH("% Youth Militants",10))*SQRT("Yearly Change in Ratio of Militants to Opposition"))^0.5

Probability of Contact: Ratio of Militants to Opposition=Youth Militants/Youth Opposition

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Snow et al. (1980); Vendley (2001); and Weimann (1994), among others.

Conceptual underpinnings of the "contact-contagion" relationship are well supported in the multidisciplinary literature, including linkages to social movements, system dynamic archetypes, organizational management, and empirical studies of youth violence. In the social movements literature, MacCulloch (2001, 12-13) adapts the idea of a "revolutionary bandwagon" (Kuran 1991). Sterman (2000, 303) uses the systems archetype of "pandemics", tracing how "disease spreads through contact between infected and susceptible individuals." In the organizational management literature, Shapiro (2010, 20) follows Gladwell (2000); Ball (2004); and E. Rogers (1962), and applies the logic of "contagion" to effective corporate transformations, noting the "infectious attitude of enthusiasm" when idea "Advocates come in contact with Apathetics." Finally, a global cross-case analysis of youth violence by Dowdney (2005, 86) highlights the importance of reference groups (particularly family and friends) and of exposure (street ties to armed groups) as determinants of violent youth mobilization. Direct recruitment is treated as rare in the absence of supportive social networks.

Militant youth are deemed far less likely to interact with politically dissimilar youth than with the "nearby" Opposition cohort. Therefore, only those one affiliation removed are calculated into ratio comparison.

EXTREME CONDITIONS TABLE: Effects twice as strong as moving towards the extreme. Parameter sets the boundaries for social network contagion factors at 15 and .133 (1/7.5).

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4. Militant Legitimacy Multiplier (Opposition Cohort)

DMNL: Multiplier Index Normalized to 1 for Initial Year

SIMULATED IN MODEL

REVIEWED AGAINST THE CASE-BASED NARRATIVES

Normalized value incorporates short and long run effects.

"Militant Legitimacy" requires armed groups to forge supportive

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"Militant Legitimacy" = 1 of 2 Multipliers for the Groups and Identity Mechanism.

Based on five causal inputs, the multiplier influences "Attractiveness" and restarts iterative loop dynamic for another year of growth or decay.

The 1st contributor is "Cultural Openness to Militant Identity". "Militant Legitimacy" requires discursive space for an armed group to frame a compelling narrative and then leverage its supportive networks (Wipperforth 2005). The 2nd causal contributor is "Perceived Effectiveness of Militant Organization - Internal", from the model's *Greed and Incentives* mechanism. This link highlights the necessity of perceived militant capacity, that is the ability of an armed group to challenge state

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= Yearly Change Ratio for Militant Legitimacy for Opposition/Yearly Change Ratio for Militant Legitimacy for Opposition*(Militant Legitimacy for Opposition/SMOOTH(Militant Legitimacy for Opposition,10))^2

Militant Legitimacy for Opposition= INTEG (+Change in Militant Legitimacy for Opposition, Initial Militant Legitimacy for Opposition)

narratives and networks that resonate in the community, to demonstrate their capacity for future success, to limit their acts of community coercion, to avoid war weariness in their members and the surrounding community, and to consolidate influence for a singular source of strategic messaging.

institutions, an effort aided by its value-added marketing in the targeted community (Battle 2010; Byman et al. 2001; Lilja 2009; Weinstein 2007, 45). The 3rd contributor (adverse) to armed group legitimacy is "Militant Coercion – Internal", another variable imported from the *Greed and Incentives* mechanism. It highlights counterproductive legitimacy effects when a group wrests control of the community's resources via force, creating discontent and distrust (Battle 2010; J. Becker 2006; Korf 2006; and Tilly 1985, among others). The 4th contributor is *balancing* "War Weariness": extended periods of conflict and repression undermine militant commitment and diminish hope for victory when there is no end in sight for armed struggle, as discussed by E. Anderson (2006); P. Collier and Sambanis (2005a; 2005b); Biswas (2006), P. Collier and Sambanis (2005a; 2005b); and Gamburd (2004). Effects are lagged in the model over several years to capture legacy effects of a high incidence of violence. The 5th and final contributor to "Legitimacy" is "Militant Consolidation", which highlights the mobilizing benefits of a relative monopoly for state challenge. "Militant Consolidation Effects" refer to the degree of competition encountered by a given militant group in challenging state authority. Reference index values are discussed further in Appendix B.

The model's "Militant Legitimacy" concept coincides with Weinstein (2007, 48-50), who highlights the role of "social endowments" (Tilly 1978) and "social capital" (Putnam 1993) in armed group contention. Of course, *Greed and Incentives* can crowd out identity-based mobilization in some settings. According to Weinstein (2007, 52), "Because rebel groups can organize quickly in resource-rich environments, collective identity rooted in identities, beliefs, and norms never takes hold."

Change in Militant Legitimacy for Opposition =Militant Legitimacy for Opposition*Change Effect for Militant Legitimacy Table(1/Yearly Change Ratio for War Weariness*Yearly Change Ratio for Opposition Cultural Openness to Militant Identity*"Yearly Change Ratio for Perceived Effectiveness of Militant Organization: Internal"*(1/"Yearly Change Ratio for Militant Coercion: Internal)*Yearly Change Ratio for Consolidation of Militant Authority)/100

REFERENCE

Change Effect for Militant Legitimacy Table

| 5. Economic Grievance Multiplier (Opposition Cohort) | DMNL: Multiplier Index Normalized to 1 for Initial Year | SIMULATED IN MODEL REVIEWED AGAINST THE CASE-BASED | "Economic Grievances" = 1 of 2 Multipliers for the Grievance and (Perceived) Injustices Mechanism. The "Economic Grievances Multiplier" de-emphasizes absolute measures of cohort opportunity, instead comparing young people's present realities to their past experiences. "Economic | = (Opposition Youth Consumption Factor of Economic Grievances* Opposition Youth Employment Factor of Economic Grievances) |

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Youth opportunity is operationalized by two cohort-specific measures considered in combination: jobs estimated per cohort youth & consumption per cohort youth.

The multiplier calculates relative effects vis-à-vis long-run ratios (a 10 year smoothing delay) and short-run expectations.

Per capita ratios for the actual to "desired" jobs and actual to "desired" consumption are multiplied to calculate economic grievances. If the combined value exceeds one (e.g. 1.5), it means opportunity supersedes the cohort expectations, thus triggering higher expectations for future years. It also triggers, for the current year, an inverse effect for the multiplier (calculating a value of 0.67, or 1 divided by 1.5). | Grievances" (and thus militant "Attractiveness") rise when a cohort's present consumption and employment status cannot keep pace with the expected or desired levels. Theoretical underpinnings include classic "J-curve" explanations of political unrest offered by J. Davies (1962; 1963; 1969); Gurr (1970); and Huntington (1971), as well as recent treatments of expectation-driven grievances by Atran (2004), Barker (2005), Richardson and Milstead (1986); and Richardson (2005), among others. The "J-Curve" refers to the upside-down "J" shape that appears when graphing a sharp economic downturn after a period of extended growth. Accounts of consumption shortfall effects are considered from Dube and Vargas (2008); an Urdal (2004; 2006); etc.

In the model, an "Expectations" gap is tallied in relation to a cohort's employment and consumption status. Unemployment effects are conceptualized as a comparison between the per capita job availability and the "desired" job ratio per youth. The latter figure is calculated based on a trajectory of the cohort's recent collective experience in the job market, conditioned by a time delay to account for shifts in cohort expectations. Embedded in the model's time delay is an assumption adapted from Richardson and Milstead (1986). Job seekers tend to accept good news about economic trends more quickly than bad news, which implies differential delays in how they adjust their employment expectations. Consumption effects in the model utilize the same expectations substructure as used for employment, comparing cohorts' consumable income per capita to their "desired" level per youth.

Finally, calculated "Economic Grievances Multiplier" combines with five other multipliers to influence "Attractiveness", with effects for the "Number of Youth Militants". | *Opposition Youth Consumption Factor of Economic Grievances* = (1/Opposition Ratio of Youth Consumption to Desired Consumption)*(1/Ratio of Opposition Youth Consumption per Capita to Long Trend)/(1/Ratio of Opposition Youth Consumption per Capita to Long Trend)

Ratio of Opposition Youth Consumption per Capita to Long Trend = Opposition Youth Consumption per Capita/SMOOTH(Opposition Youth Consumption per Capita,10)

Opposition Ratio of Youth Consumption to Desired Consumption= Opposition Youth Consumption per Capita/Desired Opposition Youth Consumption Per Capita

Desired Opposition Youth Consumption Per Capita= INTEG (Change in Opposition Youth Consumption Desires,Initial Desired Opposition Youth Consumption) [Units: $/person]

Similar Equations for "Youth Employment" Variable Inputs to "Economic Grievances" |

		SIMULATED IN MODEL REVIEWED AGAINST THE CASE-BASED NARRATIVES *Illegitimacy:* Comparison with long run and previous year values for government legitimacy (inverse effect), and relevant adjustments for absolute effects. Also includes the inverse calculation of year-to-year composite legitimacy factor (SQRT). At high levels of legitimacy, any resistance mobilization is diminished (up to 2X), while below 50% legitimacy, such mobilization is greatly accelerated.	"Political Grievances" = 1 of 2 Multipliers for the Grievance and (Perceived) Injustices Mechanism. "Group Comparison Effect", "Repression Effect", and "Service Services Shortfall Effect" all reinforce avalanche dynamics for "Government Legitimacy" that can lead to rapid growth or rapid decline in "Grievances" and thus militant "Attractiveness". Meanwhile, the role of "Expectations" based on youth cohorts' past experience of "Repression" and "Social Services", along with balancing effects of "Repression Effectiveness", together restrain, or at least slow, any presumed avalanche effects. The fate for "Attractiveness", then, as influenced by the "Political Grievances Multiplier", depends on whether reinforcing or balancing elements achieve dominance. Source data is not specific to this variable. See related source data discussion for "Government Legitimacy" in Appendix B.	= Government Illegitimacy Factor of Mobilization Attractiveness*Opposition Relative Share of Political Grievances *Government Illegitimacy Factor of Mobilization Attractiveness* = Government Legitimacy Factor of Mobilization Attractiveness Table ("% Government Legitimacy")/Government Legitimacy Factor of Mobilization Attractiveness Table ("Initial % Government Legitimacy"))*(100-"% Government Legitimacy")/SMOOTH(100-"% Government Legitimacy",10))*SQRT (Government Legitimacy Factor of Mobilization Attractiveness Table ("% Government Legitimacy")/Government Legitimacy Factor of Mobilization Attractiveness Table("Previous Year % Government Legitimacy"))*"Composite Legitimacy Effects on Political Grievances") *Opposition Relative Share of Political Grievances*= 1/SQRT(("Opposition % Share of Jobs and Services"/"% Youth Opposition") /SMOOTH(("Opposition % Share of Jobs and Services"/"% Youth Opposition "),10))
6. Political Grievance Multiplier (Opposition Cohort)	DMNL: Multiplier Index Normalized to 1 for Initial Year			

Variable	Units / Index	Status	Description	Formula
7. War Booty Multiplier (Opposition Cohort)	DMNL: Multiplier Index Normalized to 1 for Initial Year. Based on Currency Ratios, Comparing to Potential Cohort Earnings as well as Past Experience. The multiplier then calculates relative effects vis-à-vis long-run ratios (a 10 year smoothing delay) and short-run expectations.	SIMULATED IN MODEL. REVIEWED AGAINST THE CASE-BASED NARRATIVES	"War Booty" = 1 of 2 Multipliers for the Greed and Incentives Mechanism. The multiplier highlights critical micro-economic incentives of mobilization: financial opportunities an armed group offers to potential participants (per capita) relative to potential gains in the economy. The comparison of per capita militant payroll to per capita cohort consumption operationalizes an economics-based argument common within the civil wars literature: individual actors are expected to seek maximized utility, so given similar risks, they are predicted to seek employment in the sector that offers them the greatest economic returns. See discussion of crime and conflict incentives in related work by G. Becker (1968); Berman et al. (2009); P. Collier and Hoeffler (1998; 2000; and 2004); P. Collier et al. (2003); Dowdney (2005); Soto Hardiman and Lapere (2004), and Weinstein (2007), among others. Of course, increasing armed participation also contributes to lower per capita payouts in the "Militant Payroll Per Militant" variable.	=SQRT(Normalized Ratio of Per Capita Militant Payroll to Opposition Consumption* Opposition Ratio of Relative Opportunity to Desired Relative Militant Opportunity) *Normalized Ratio of Per Capita Militant Payroll to Opposition Consumption*=("Relative Economic Opportunity: Ratio of Per Capita Militant Payroll to Opposition Consumption"/"Initial Ratio of Per Capita Militant Payroll to Opposition Consumption")/SMOOTH(("Relative Economic Opportunity: Ratio of Per Capita Militant Payroll to Opposition Consumption "/"Initial Ratio of Per Capita Militant Payroll to Opposition Consumption"),10) *Ratio of Per Capita Militant Payroll to Opp. Consumption*=Militant Payroll per Militant/ Opposition Youth Consumption per Capita *Militant Payroll Per Militant*=Militant Resources Spent on Payroll/Youth Militants
8. Government Fear Multiplier (Opposition Cohort)	DMNL: Multiplier Index Normalized to 1 for Initial Year. High Levels of Govt. Fear = High Govt. Repression (Absolute and Expected) + High Govt. Repression Effectiveness + Low	SIMULATED IN MODEL. REVIEWED AGAINST THE CASE-BASED NARRATIVES	"Government Fear" = 1 of 2 Multipliers for the Greed and Incentives Mechanism. "Government Fear" highlights how enhancing the effectiveness and intensity of "Government Repression" can dis-incentivize the recruitment and participation of young people in non-state armed groups. As the "Government Fear Multiplier" increases, the "Attractiveness for Militant Mobilization" diminishes. The *reinforcing* influence of repression intensity (quantity) on "Government Fear" is most notable at the upper bounds of coercion and when its relative levels supersede a cohort's expectations (O'Connell 2008; Regan and Norton 2005; Saeed 1994; etc.). Meanwhile, repression effectiveness (quality)	= Government Fear Factor of Mobilization Attractiveness Table (Government Fear Factor of Mobilization Attractiveness)/Government Fear Factor of Mobilization Attractiveness Table (Initial Government Fear Factor of Mobilization Attractiveness) *Government Fear Factor of Mobilization Attractiveness* = (1/"Rights Factor of Legitimacy #1: Expected Repression (Favorable)")*(1/" Rights Factor of Legitimacy #2: Absolute Repression (Decreasing)")*("Security Factor of Legitimacy: Repression Effectiveness (Increasing)")*(1/"Consolidation of Militant Authority")^2

		Militant Consolidation. EXTREME CONDITIONS TABLE: Lower cap for fear factor set at 0.2, calculated (inversely at 5) as maximum incentive for militant mobilization based on govt. threats alone. Upper cap for fear set at 10.	reinforces the impact of government coercion based on the level of state capacity (O'Connell 2008; Richardson 2005; etc.). Finally, "Militant Consolidation" is expected to undermine "Government Fear" over time due to the superior protection a well-established armed group can provide to its prospective members (Smyth 2003; Tilly 1985; Thomas and Casebeer 2004; etc.). See also source data discussion for "Government Legitimacy", documented in Appendix B. In the scope of the broader model, "Fear" balances the adverse effects of repression for "Government Legitimacy". As for the interactive effects, enhanced "Government Repression" tends to reinforce Grievances and Perceived Injustices (and militant "Attractiveness") over the long term, but Greed and Incentives-based "Repression Effects on Government Fear" can dominate the short term, constraining militant recruitment activity.	 REFERENCE Government Fear Factor of Mobilization Attractiveness Table
9. Youth Population (Population 15-29)	People	REFERENCE EMPIRICAL DATA INPUT NOT SIMULATED IN THE MODEL	Key indirect influence for all three model causal mechanisms. Model age cohorts are adapted from UN (2007) data, combining estimates for 15-24 and 24-29 age cohorts in 5-year increments. For Nicaragua, data from Wilke [ed.](2002) is integrated with UN (2007) estimates to enhance model accuracy for early years of simulation. For Sri Lanka, data from Abeyratne (1998, 140, 229), Government of Sri Lanka (2008), and Karunatilake (1987, 187) delineate ethnic percentages.	="Reference Population 15-24"+"Reference Population 25-29" Nicaragua Population, 15-29 Reference Sri Lanka Population 15-29
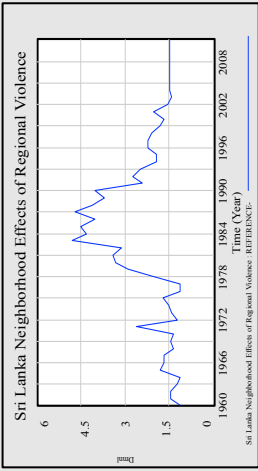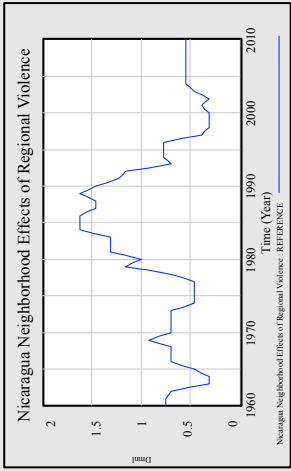
| 10. Level of Conflict (Militant Violence) | DMNL

Normalized Index

Nicaragua: 0-100 scale based on interview graphing exercise (Appendix A)

Sri Lanka: ca. 0-6000 scale for the indexed fever chart method of Richardson (2005) re: conflict intensity. Normalized scores from other data sources in years after 1988. | REFERENCE EMPIRICAL DATA INPUT

NOT SIMULATED IN THE MODEL

The *reinforcing* relationship between "Number of Youth Militants" and "Level of Conflict (Militant Violence)" reflects the implicit manpower and human capital needs of armed groups. The existence of this causal link is well supported in recent literature on conflict/insurgency, such as E. Anderson (2006; 2009); Choucri et al. (2007); Wood (2010); etc. However, simulating its precise specification in relation to other causes of violence falls beyond the scope of this project's research questions. Therefore, the model uses empirical reference data (not simulated estimates) for its yearly calculations of | Key indirect influence for all three model causal mechanisms.

Project application of the "Level of Conflict" variable draws on Richardson's (2005) "fever chart" approach to violence and Tilly's (2005a) complementary work on "contentious politics". "Conflict" encompasses a spectrum of extra-legal, often armed protest events "against the government or the established order of things" and may be graphed according to scope and intensity of its outbreak (Richardson 2005, 76). Carey (2006, 1) argues violent and non-violent conflict should not be modeled "as completely separate events, but as different points on one continuum" of contentious politics.

For Sri Lanka, the most reliable, comprehensive data source on civil violence is the conflict event fever chart data by Richardson (2005), which terminates in 1988. Subsequent data points have been extrapolated from the Global Terrorism Database (National Consortium for the Study of Terrorism and Responses to Terrorism - START 2011), with consideration of other well-used global datasets: Major Episodes of Political Violence (Marshall 2010); Political Instability Task Force (Marshall et al. 2009); and the *World Handbook on Political Indicators* (Jenkins et al. 2004), etc. The estimates are normalized for continuation of Richardson (2005) values.

In Nicaragua, where accuracy of violence event data for the 1970s and 1980s has been called into question due to data planting and Cold War media manipulation (Brockett 1992), the yearly estimates of global datasets identified above are checked against results of a participative graphing exercise (Appendix A) and diverse qualitative data sources. See details in the project data archive (M. Hamilton 2012). Examples include Booth et al. (2006); Butler et al. (2005); Grossman (2005); Kinzer (1991); Reed (2004); Rocha (2005); Rodgers (2005); Rodgers et al. (2009); Tatar (2005); Vanden and Prevost (1993); and Zimmerman (2000), etc. | *Reference Militant Violence Data (by Case)*

IF THEN ELSE(Time>1988, "Reference SW Sri Lanka Violence Index (Total Yearly 1988-2009)" , "Reference SW Sri Lanka Violence Index (Total Yearly 1948-1988)")

= IF THEN ELSE(Time>1988, "Reference NE Sri Lanka Violence Index (Total Yearly 1988-2009)" , "Reference NE Sri Lanka Violence Index (Total Yearly 1948-1988)") |
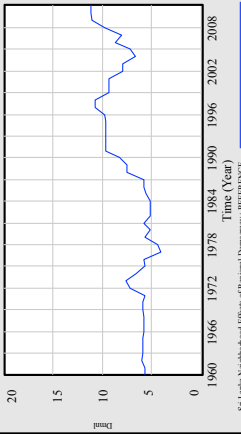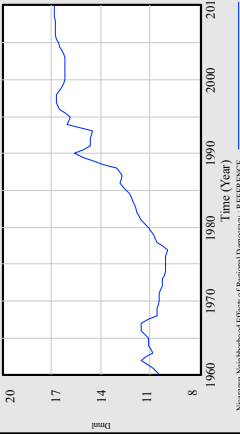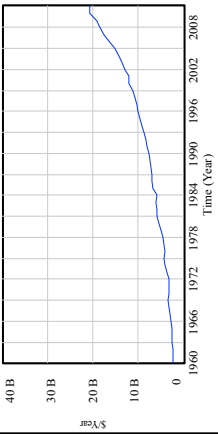
Variable	Units/Scale	Type	Definition	Reference Data
	conflict intensity.			Reference Total Nicaragua Violence Index (Total Yearly) =((("Reference Anti-Somoza Violence Index (0-100), 1960-1979 (Hamilton Interview Graphs)"+"Reference Contra Violence Index (0-100), 1980-1990 (Hamilton Interview Graphs)"+"Reference Pandilla Violence Index (0-100), 1990-2010 (Hamilton Interview Graphs)")^1)*("Reference Nicaragua Violence (0-100), 1960-2010 (Hamilton Estimate, Assorted Data Sources)"^3))^0.25
11. Government Repression	DMNL Normalized Index Sri Lanka: 0-16 scale, based on empirical data from Richardson 2005) Nicaragua: 0-100 scale based on interview graphing	REFERENCE EMPIRICAL DATA INPUT NOT SIMULATED IN THE MODEL	Key indirect influence (via "% Government Legitimacy") for the "Political Grievance Multiplier" of Grievances and (Perceived) Injustice causal mechanism. Also plays a key background role for the "Government Fear Multiplier" of Greed and Incentives". The project's definition draws from Duff and McCammant (1976, 24), who cite "the use of governmental coercion to control or eliminate actual or potential political opposition." "Repression" is operationalized as four indexed categories (Ibid), which include: 1) "suspension of constitutional guarantees" (defined elsewhere as infringements on political liberties), 2) "arrests, exiles, and executions" (defined elsewhere as state terror), 3) "restrictions on political parties" (defined elsewhere as autocracy or limited participation), and 4) "censorship of the press" (defined elsewhere as infringements on civil liberties).	*Reference Govt. Repression Data (by Case)* Sinhalese Government Repression *Sinhalese Government Repression (0-16)* = IF THEN ELSE (Time>1988, "Reference SW Sri Lanka State Violence Index (Yearly, 1988-2009)" , "Reference SW Sri Lanka State Violence Index (Yearly, 1948-1988)")

Tamil Government Repression

*Tamil Government Repression (0-16)=*IF THEN ELSE (Time>1988,"Reference NE Sri Lanka State Violence Index (Yearly, 1988-2009)" , "Reference NE Sri Lanka State Violence Index (Yearly, 1948-1988)")

Nicaragua Government Repression Index (0-100)

"Nicaragua Government Repression Index (0-100)"= (("Reference Nicaragua Repression, 1950-2010 (Duff & McCammant Framework)"^1)*("Reference Nicaragua State Violence Index (0-100), 1960-2010 (Hamilton Interview Graphs)"^1)*(("Reference Nicaragua State Violence (0-16), 1960-2010 (Hamilton Estimate, Assorted Data Sources)"/16*100)^2))^0.25

For the Sri Lankan case, a categorized and comprehensive dataset from Richardson (2005) is utilized for model simulation through 1988, adapted to address differences in state treatment of Sinhalese and Tamil communities. From 1988, a series of multi-source longitudinal measures are considered in combination.

Category 1 considers the CIRI Empowerment Rights Index (D. Richards et al. 2001) and Freedom House Political Liberties Index (Freedom House 2011). Category 2 draws on the CIRI Physical Integrity Rights Index (Cingranelli and Richards 1999), Purdue/ Amnesty International Political Terror Scale (Gibney and Dalton 1996, Wood and Gibney 2010), and government-related indices in the *World Handbook on Political Indicators IV* (Jenkins et al. 2007). Category 3 uses Polity II and IV indices for Autocracy and Political Participation (Marshall et al. 2009), in combination with the Polyarchy Index of Democracy (Vanhanen and International Peace Research Institute 2007). Category 4 uses the Freedom House Civil Rights Index (Freedom House 2011), among other sources. The project data archive (M. Hamilton 2012) shows how distinct datasets are normalized to parameters of each category, extrapolating gaps as needed. If there are conflicting estimates, data is verified by case-specific qualitative empirics. A similar data compilation process is used to capture long-run patterns of repression in Nicaragua. Categorized sources include all of the datasets listed above, with inputs from a regional study by Bowman et al. (2005). These are combined with composite results from the participative graphing exercise undertaken across Nicaraguan social sectors (Appendix A). See details in the project's online data archive (Hamilton 2012).

exercise (Appendix A), but normalized to 0-16 in the model

	SIMULATED IN MODEL	= INTEG (+Change in Culture of Violence, Initial Culture of Violence)
	REVIEWABLE AGAINST THE CASE-BASED NARRATIVES	Change Effect for Culture of Violence=Change Effect for Culture of Violence Table (Conflict Effects on Culture of Violence*Repression Effects on Culture of Violence*SQRT ((1/Neighborhood Effects of Democracy on Culture of Violence)*Neighborhood Effects of Regional Violence on Culture of Violence))
	DMNL:	*Neighborhood Effects of Regional Violence:* "*Average Magnitude of Regional Conflict*"= "Magnitude of Regional Conflict (MEPV)"/ "Number of Regional Neighbors (MEPV)"
12. Culture of Violence	Normalized Index Initial equilibrium value of 1	

Key indirect contributor to the "Militant Legitimacy Multiplier" of the Groups and Identity causal mechanism.

"Cultural Openness to Violence" is operationalized as an indexed stock variable in the model, increasing or decreasing based on multiplicative change effects from its four causal inputs, two internal (local) and two external (regional).

"Cultural Openness" is enhanced by year-to-year growth in a community's "Level of Conflict", according to Balcells Ventura (2010), Brett and Specht (2004); S. Brown (1994); the Commission on Global Governance (1995); Muller and Seligson (1994); Rupesinghe and Rubio [eds.] (1994); Ross (1993); and Shy (1971), among others. Alternately, trends of diminishing "Conflict" should lower a community's tolerance for violence over time. "Cultural Openness" ultimately centers on cultural expectations: if violence is the norm, outbreak is more palatable.

A similar *reinforcing* influence on "Cultural Openness" comes from "Government Repression", whether the pattern is increasing or decreasing over time. Booth and Richard (1996, 2000); Henderson (1991); and Jongman (1991) observe that increased repression over time undermines a community's democratic values and facilitates normative defenses for the use of force.

The remaining two influences on a community's "Cultural Openness", *reinforcing* "Neighborhood Effects of Regional Violence" and *balancing* "Neighborhood Effects of Regional Democracy", are exogenous to the model's feedback. Still, global norm diffusion and external political interference have proven influential for domestic attitudes/behaviors in a number of global settings (Miall et al. 2000). The "contagion" effects for regional violence are documented by M. Brown (1996); Buhaug and Gleditsch (2005); Esty et al. (1995); Rizvi (1981); J. Vasquez (1992); and Ward and Gleditsch (2002). The "demonstration" effects of regional democratization are

Determined in the model by four causal contributors: 1) the "Level of Conflict", 2) the intensity of "Government Repression", 3) the "Neighborhood Effects of Regional Violence", and 4) the "Neighborhood Effects of Regional Democracy". It is operationalized in the model as an indexed stock variable, increasing or decreasing yearly based on the multiplicative change effects calculated for its four causal inputs.

In model calculations, the local experience of violence & repression is twice as strong as regional neighborhood effect considerations.

Neighborhood Effects: Regional Democracy= "Average Magnitude of Regional Democracy (Polity IV)"

Sri Lanka Neighborhood Effects of Regional Democracy

Nicaragua Neighborhood Effects of Regional Democracy

highlighted in the work of Huntington (1991); Markoff (1996); Pevehouse (2002); Przeworski (1991); and Richardson and Hermann (1998).

The model uses the Major Episodes of Political Violence (MEPV) dataset of the Center for Systemic Peace (Marshall 2010) as primary source data on regional violence, and considers "Democracy" and "Autocracy" measures from the Polity IV project (Marshall and Jaggers 2009) to simulate similar data for regional democracy. MEPV-defined regions are utilized for both variables. See more details in data archive (Hamilton 2012).

In combination with local effects of the "Level of Conflict" and "Government Repression", external "Neighborhood Effects" of violence and/or democracy exert upward or downward pressure on a community's "Cultural Openness to Violence".

| 13. Total Consumption | $/year (2000 US Dollars) | REFERENCE EMPIRICAL DATA INPUT SIMULATED VALUE IS CALCULATED IN THE MODEL BUT NOT USED IN FINAL EQUATIONS | |

Reference Total Consumption by Case ($/year)

Reference Sri Lanka Consumption

Key contributor to the "Economic Grievances Multiplier" of the Grievances and (Perceived) Injustices Mechanism.

To enhance the model's parsimony and support a more accurate estimation of militant numbers (the focus of project research questions), reference economic data has been introduced to the model simulation.

Consumption estimates for both country cases include the World Bank (2012), International Monetary Fund - IMF (2011), and International Futures - IFS (Hughes 2012). ECLAC (2010) offers case-based consumption inputs for Nicaragua. For Sri Lanka, excellent sources include Peebles (1982); Karunatilake (1987); and Richardson (2005, background datasets).

The fate of a national economy is influenced by myriad factors (local, regional, and global) far beyond a particular conflict dynamic. In small countries like Nicaragua and Sri Lanka, external shocks and global influences can play a dominant role in national economic outcomes (e.g., Escaith 2001; Mittelman 2000; Ocampo 2002; and Richardson 1999). In addition to other measurement concerns, this external dynamic creates significant challenges for setting model boundaries.

Primary longitudinal sources on economic output (GDP) for Sri Lanka and Nicaragua data are the World Bank (2012) and International Monetary Fund – IMF (2010); however, reference figures are adapted in particular years to incorporate more reliable data, adjusting for purchasing power parity (PPP). For Sri Lanka, sources include Peebles (1982) and Richardson (2005, supporting documentation). A key source for Nicaragua is MOxLAD, the Montevideo-Oxford Latin American Economic History Data Base (Oxford University 2012). See M. Hamilton (2012) for details on economic reference data for the model.

= "Reference Sri Lanka Output (Selected)"* "Reference Sri Lanka Household Consumption % of GDP (IFS Data)"/100

Reference Nicaragua Consumption

= IF THEN ELSE (Time<2004,Reference Nicaragua Output*(0.01*"Reference Nicaragua Household Consumption % of GDP (IFS Data, 1960-2004)", Reference Nicaragua Output *"Reference Nicaragua Private Consumption % of GDP (CEPAL, 1994-2009)")

Reference Total Output by Case ($/year)

Reference Sri Lanka Output (Selected)

= "Reference Real Sri Lanka GDP-PPP in 2000 $USD (IFS Data)"

			Reference Nicaragua Output graph (6 B, 4.5 B, 3 B, 1.5 B, 0; Time (Year) 1960–2010; $/Year; Reference Nicaragua Output : REFERENCE) =IF THEN ELSE ("Switch for GDP (1970 USD vs 2000 USD)"=1, "Reference Nicaragua Output (GDP in 2000 USD: World Bank, 1960-2010)", "Reference Nicaragua GDP PPP (1970 USD: MOxLAD)")
14. **Total Employment**	Jobs/Year	REFERENCE EMPIRICAL DATA INPUT SIMULATED VALUE IS CALCULATED IN THE MODEL BUT NOT USED IN FINAL EQUATIONS	For data consistency, simulated estimates for total jobs are adjusted to empirical case reference data for employment and unemployment. Sources for Nicaraguan unemployment include government data in the annual *Statistical Yearbook for Latin America and the Caribbean* (Economic Commission for Latin America and the Caribbean – ECLAC (1976-2010), Wilkie [ed.] (2002), and the online databanks of the International Labor Organization – ILO (2011) and World Bank (2012), tempered with competing figures from Booth (1982; 1991) and T. Walker and Armony [eds.] (2000); etc. Sri Lanka sources on unemployment include annual government yearbooks (Central Bank of Sri Lanka 1978-2010) along with Abeyratne (1998; 2004); Attanayake (2001); Hettige (2000; 2002; 2004); Lakshman (1997; 2002); Karunatilake (1987); and Matthews (1995).	Reference Nicaragua Jobs graph (2 M, 1.5 M, 1 M, 500,000, 0; Time (Year) 1960–2010; jobs; Reference Nicaragua Jobs : FINAL NICARAGUA) =Nicaragua Labor Force*(1-Nicaragua Unemployment Rate Based on Reference Unemployment) *Nicaragua Unemployment Rate Based on Ref. Unemployment* = IF THEN ELSE (Time<= 1970, "Estimate % Nicaragua Unemployment Rate 1960-1969 Based on 1970 Data", IF THEN ELSE (Time<1978, "Estimate % Nicaragua Unemployment Rate 1971-1977 Based on Per Capita GDP Growth Rates", "Reference Nicaragua Unemployment Rate % (CEPAL, ILO and Booth), 1970-2009"))

		Reference Sri Lanka Employment Estimates (Varied Sources) 8 M 6 M sqf 4 M 2 M 0 1960 1966 1972 1978 1984 1990 1996 2002 2008 Time (Year) "Reference Sri Lanka Employment Estimates (Varied Sources)" FINAL ="Reference Employment Data: 1943-1982 (Karunatilake)"+"Reference Employed, 1990-2010 (Govt Labor Force Surveys, Non-NE)" *Estimate for Relative NE Employment Share
15. **Youth Cohort Opportunity Share** **(Opposition % Share of Jobs and Services)**	SIMULATED IN MODEL REVIEWABLE AGAINST THE CASE-BASED NARRATIVES Queuing structure in the model allocates yearly opportunity levels for each youth cohort, specifying "Opportunity Share" of community resources vis-à-vis other competing political and age cohorts. The queue assumes preferential access to jobs and consumable income for the community's elders and politically DMNL % Share of Jobs % Share of Services	"Opportunity Share" queuing operationalizes insights by Alex-Assensoh (1997), the *MARGene* databank and ethnic group analysis of the Minorities at Risk Project (2009), and Tilly's (1998) mechanisms of "durable inequality" favoring the powerful in resource and opportunity queuing. Regarding age-specific inequality, the UN (2003, 55) measures global youth unemployment at up to three times that of elder cohorts. Model estimates reflect empirical adaptations case-specific to Sri Lanka (Abeyratne 2004; Karunaratne 2008; Karunatilake 1987; Spencer 2000, Sriskandarajah 2005; Stewart 2001; etc.) and Nicaragua (Booth 1991; Horton 1998; Muller et al. 1995; Rodgers 2006; Székely and Hilgert 1999; etc.). In the Sri Lanka case, preferences for Sinhalese and Tamil cohorts are specified according to the longitudinal insights of Abeyeratne (1998); Karunatilake (1987); Peebles (1982); Richardson (2005), and the University Grants Commission – Sri Lanka (2011) on the relative ethnic shares of jobs and consumption as well as relative access to state social services (health, education, and infrastructure development).	= Opposition Youth Jobs/Youth Jobs *Opp. Youth Jobs* = Total Jobs-Non-Youth Jobs *Opposition Youth Jobs=* IF THEN ELSE (Opposition Youth Jobs Available> Opposition Youth Jobs Needed, Opposition Youth Jobs Needed+(Excess Militant Youth Jobs/3), Opposition Youth Jobs Available+(Excess Militant Youth Jobs/3)) *Opposition Youth Jobs Needed=*Youth Opposition*Youth Labor Utilization Fraction *(1-Base Unemployment Share) *Opposition Youth Jobs Available:*(Youth Jobs*Base Opposition Job and Service Priority)+ Excess Unaffiliated Youth Jobs *Non-Youth Unemployment Rate=* IF THEN ELSE(Total Unemployment Rate>0,(Total Unemployment Rate)/(1-"Youth % of Labor Force"+("Reference Age Favoritism: Ratio of Youth to Non-Youth Unemployment"*

	entrenched sectors, which are expected to reap unequal rewards across contexts. EXTREME CONDITIONS : Elders (30-59) receive a higher excess job share (>1) in rare situations of modeled overemployment.	The model combines reference data on ethnic shares of population, employment and university admissions, the latter quite controversial in a Sri Lankan context. Relative effects to opportunity from conflict interruptions are then subtracted from the calculated share.	("Youth % of Labor Force")),(Total Unemployment Rate)/(1-"Youth % of Labor Force"+(1/"Reference Age Favoritism: Ratio of Youth to Non-Youth Unemployment") *("Youth % of Labor Force"))) *Sri Lankan Case: Ethnic Shares:* *"Tamil % Share of Jobs and Services"=* ((5*"Reference Tamil % of University Admissions (ABEYRATNE+UNIVERSITY GRANTS COMMISSION)"+(1*"Reference Tamil % of Total Jobs")+(4*("Reference Tamil % of Sri Lanka Population")))/10-Effects of Tamil Violence on Relative Jobs and Consumption Share-Effects of Tamil Government Repression on Relative Jobs and Consumption Share *Corresponding equations for Sinhalese cohorts.*
16. Government Legitimacy (% Government Legitimacy)	DMNL: Total % of Population SIMULATED IN MODEL REVIEWABLE AGAINST THE CASE-BASED NARRATIVES Units: % points of Government support (vs. % Illegitimacy), per Richardson and Milstead (1986, 57) Modeled "Legitimacy" draws on "reservoir" metaphor of noted democracy theorists.	Primary influence on "Political Grievance Multiplier" for the Grievances and (Perceived) Injustice mechanism. Building on systems–based "bathtub dynamics" (Sterman 2000) and violence conceptions (Richardson and Milstead 1986), "Government Legitimacy" is configured as one of two connected "reservoirs". The model's *Legitimacy* reservoir competes with an *Illegitimacy* reservoir for total percentage of a given population's support. "Support" points flow between the two reservoirs each year of model simulation, shifting based on a regime's ability "to engender and maintain the belief that existing political institutions are the most appropriate ones for the society (Lipset 1959, 77)." Legitimacy shifts are determined by consolidating the inputs of group comparisons, the quality and quantity of government repression, and levels of social service delivery (both expected and absolute).	= INTEG (+Weakening Government Legitimacy-Strengthening Government Legitimacy, "Initial % Government Illegitimacy") *Composite Government Legitimacy Factors=* ((Government Services Factor of Legitimacy: Government Weighting Factor of Legitimacy: Government Services")*(Government Repression Factor of Legitimacy* Group Comparison Factor of Legitimacy)"Weighting Factor of Legitimacy: Rights and Security") *Group Comparison Factor of Legitimacy=* SQRT (Consumption Comparison Group Factor*Employment Comparison Group Factor)

If a regime can maintain sufficient "reserve" (Dahl 1971, 149) of a population's "favorable attitudes" and "diffuse support" (Easton 1965; 1975), the governing body can better ensure its institutional stability. *Weighting Factor of Legitimacy Table:* At low levels of govt. legitimacy, expected rights and security are expected to play a marginally greater role than services in determining ongoing legitimacy. This changes above the threshold of 75% legitimacy, in which case there is greater emphasis on service delivery for continued population support. *Government Illegitimacy Effect on Group Comparison Perception Inflation Table:* Maximum effect of government illegitimacy on perception inflation of competitors'	The "Group Comparison" input for "Government Legitimacy" compares a cohort's opportunity to the perception-inflated economic power of both community elders and peer political competitors (combining relevant youth sectors). According to Staveteg (2005) and Easterlin (1968; 1978; 1987), key grievances emerge when youth opportunity falls short of previous "generational cohorts": young people expect to maintain and improve on the economic status of their parents. Meanwhile, peer-level comparisons draw on identity-based rivalries, which are sourced in political affiliations, ethnic groupings, and other salient categories (Gurr 2000; Jackson 1972; Runciman 1966, I. Walker and Smith [eds.] 2002). Regarding the effects of "Government Repression", legitimacy is undermined by three factors: • *Absolute increases* in repressive intensity over time (O'Connell 2008; Saxton 2005, etc.). At higher levels of repression, illegitimacy gains are even more pronounced. • *Exceeding expected levels* in the short term (Atran 2004; Booth 1991; Gurr 1970; Moore 2000; and Saeed 1994, etc.). This follows a similar structure as economic expectations discussed in reference to employment and consumption. • *Lack of effectiveness* and targeting in state repressive efforts (O'Connell 2008; Richardson 2005, etc.). Five key factors influence "Repression Effectiveness" in the model: 1) the expected to actual violence, 2) total violence, 3) repression resources, 4) ratio of security personnel to militants, and 5) ratio of security personnel to all government critics. Each of these variables incorporates short-run and long run effects, and they are multiplied together, adjusted by a square root. Information on reference sources and definitions of "Government Repression can be accessed in a separate entry in Appendix B.	*"Employment Comparison Group Factor"* = SQRT (SQRT("Yearly Change in Ratio for Youth Jobs Per Capita to Perceived Non-Youth Jobs"*"Yearly Change in Ratio for Youth Jobs Per Capita to Perceived Pro-Govt Youth Jobs"*Yearly Change in Ratio for Youth Jobs Per Capita to Perceived "Rival Ethnic Group" Youth Jobs)*("Ratio of Youth Jobs Per Capita to Perceived Non-Youth Jobs"/SMOOTH ("Ratio of Youth Jobs Per Capita to Perceived Non-Youth Jobs",10))*"Ratio of Youth Jobs Per Capita to Perceived Pro-Govt Youth Jobs" /SMOOTH("Ratio of Youth Jobs Per Capita to Perceived Pro-Govt Youth Jobs",10))*(Ratio of Youth Jobs Per Capita to Perceived "Rival Ethnic Group" Youth Jobs/SMOOTH(Ratio of Youth Jobs Per Capita to Perceived "Rival Ethnic Group" Youth Jobs,10)) *Similar equation structure for "Consumption Comparison Group Factor"* FINAL Government Illegitimacy Effect on Group Comparison Perception Inflation Table *Government Repression Factor of Legitimacy* =SQRT ("Rights Factor of Legitimacy" #1: Expected Repression (Favorable)"*" Rights Factor of Legitimacy #2: Absolute Repression (Decreasing)"*"Security Factor of Legitimacy: Repression Effectiveness (Increasing)")

"Rights Factor of Legitimacy #1: Expected Repression (Favorable)" =(1/Ratio of Perceived Government Repression to Expected)

"Rights Factor of Legitimacy #2: Absolute Repression (Decreasing)" =((Effect of Absolute Repression on Legitimacy Table (Perceived Government Repression)/Effect of Absolute Repression on Legitimacy Table(Initial Perceived Government Repression)*(1/ "Perceived Government Repression - Long Run Smooth Effect"))^0.5)

REFERENCE
Effect of Absolute Repression on Legitimacy Table

-X-

"Security Factor of Legitimacy: Repression Effectiveness (Increasing)" = (("Security Factor of Legitimacy #1: Expected Violence > Violence"*"Security Factor of Legitimacy #2: Total Militant Violence (Decreasing)"*"Security Factor of Legitimacy #3: Government Repression Total Resources"*"Security Factor of Legitimacy #4: Ratio of Deployed Security Personnel to Militants"*"Security Factor of Legitimacy #5: Ratio of Security Personnel to Government Critics (Militants & Opposition)")^0.5)^Level of Repression Effect on Security Factor of Legitimacy

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Regarding "Social Services", a regime's preoccupation with "containing dissidence weakens its support for the development agenda", according to Saeed (1994, 175). Cohort expectations and absolute levels of state services play complementary roles. In the model, the "Services Share" of state spending is calculated based on case reference data for education and health budget priorities, expressed in $/year (2000 USD). Global databanks are supported by the UN (2012); World Bank (2012); and World Health Organization (2012), which consolidate state budget estimates over time. Sri Lanka-specific reference information is drawn from the Central Bank of Sri Lanka (1983; 1996; etc.); Karunatilake (1987, 207); Peebles (1982); Richardson (2005: unpublished datasets); and UN Educational, Scientific and Cultural Organization (UNESCO) and International Institute for Educational Planning (2009). Nicaragua-specific data sources include Duff and McCamant (1976, 120); ECLAC (1987; 2001); Oxford University (2012); Mitchell (1993); and Thorp (1998). For Sri Lanka, selected service indicators considered per capita include time-lagged state expenditures for education and health, number of hospital beds, number of doctors, number of government schools, and number of university graduates (University Grants Commission – Sri Lanka 2011, 63). In Nicaragua, indicators again include time-lagged state expenditures for education and health, number of hospital beds, and number of doctors. Given lower levels of education and equality, however, both secondary enrollment and tertiary enrollment are used as proxies, as are comparative measures for calories and protein consumed (Food and Agriculture Organization 2012).

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opportunity is 50%, with more nominal effects at high levels of legitimacy. Competitor groups include ethnic cohorts, pro-Government cohorts, and elder cohorts.

Effect of Absolute Repression on Legitimacy Table: At high levels of repression, one can expect effects that are adverse to legitimacy (and conducive to government fear). As repression increases, relative impacts for illegitimacy increase as well, though the effects are not linear.

Government Services Factor of Legitimacy =SQRT(Health Services Factor of Legitimacy* Education Services Factor of Legitimacy)

Education Services Factor of Legitimacy= SQRT("Education Factor of Legitimacy #1"*"Education Factor of Legitimacy #2"*"Education Factor of Legitimacy #3")

Alike: "Health Services Factor of Legitimacy"

Education Service Factors for Sri Lanka (By Ethnicity):

- Ratio of Government Educational Services to Expected #1: University Graduates"
- "Government Educational Services #2: Govt Schools Per Child and Youth"
- "Ratio of Government Educational Services to Expected #3: Expenditure"

Health Service Factors for Sri Lanka (By Ethnicity):

- "Ratio of Government Health Services to Expected #1: Doctors"
- Ratio of Government Health Services to Expected #2: Hospital Beds"
- "Ratio of Government Health Services to Expected #3: Expenditure"

Education Service Factors for Nicaragua:

- Ratio of Government Educational Services to Expected #1: Tertiary Enrolments Per Youth"
- "Ratio of Government Educational Services to Expected #2: Youth Effects of Primary & Secondary School Enrolment"
- "Ratio of Government Educational Services to Expected #3: Expenditure"

Health Service Factors for Nicaragua:
- "Ratio of Government Health Services to Expected #1: Doctors"
- "Ratio of Government Health Services to Expected #2: Hospital Beds"
- "Ratio of Government Health Services to Expected #3: Expenditure"
- "Ratio of Government Health Services to Expected #4: Calories/Person/Day"
- "Ratio of Government Health Services to Expected #5: Protein/Person/Day "

=IF THEN ELSE (Switch for Consolidation of Authority=1,SQRT ("Perceived Monopoly of Authority among Government Critics (Lack of Opposition Competition with Militants)" *"Perceived Monopoly of Militant Authority (Lack of Militant Competition)")/"Initial Consolidation of Militant Authority", Alternative Consolidation of Militant Authority)

Reference Graphs: Case Relevant Inputs
Sinhalese Militant Consolidation:

	REFERENCE EMPIRICAL DATA INPUT SIMULATED VALUE IS CALCULATED IN THE MODEL BUT NOT USED IN FINAL EQUATIONS	Influential background role for "Militant Legitimacy Multiplier" of the Groups and Identity mechanism and "Government Fear" of the Greed and Incentives mechanism, among other effects. "Militant Consolidation Effects" refer to the degree of competition encountered by a given militant group in challenging state authority. Reference index values are estimated across the simulated model timeline based on contextual insights and historical event analysis drawn from diverse data sources. For Sri Lanka, examples include Bandarage (2009); Blood (1988), Gunaratna (1998; 1999; 2001); Gunawardena (2005); R. Levy (1988); McGowan (1992), Obeyesekere (1974); Richardson (2005); Roberts (2007); and Swamy (1994; 2004), among others.
17. Militant Consolidation Effects	DMNL Normalized Index 0-10 Scale, Low level- High level	Refers to the degree of competition for a militant group in challenges to state authority. Specified by averaging index values for "Perceived Monopoly of Authority among Government Critics (Lack of Opposition Competition with Militants)" and the "Perceived Monopoly of Militant Authority	For Nicaragua, examples include Baracco (2005); Booth et al. (2006), Butler, Gates, and Leiby (2005); Grossman (2005); Instituto de Estudio del Sandinismo (1982); Kagan (1996); Kinzer (1991); Maclure and Sotelo (2004); Merrill [ed.] (1993); Núñez, Cuadra and Ramírez (1984); Ortega (1978); Reed (2004); Rocha (2005); Rodgers (2003; 2004; 2005; and 2006); Rodgers et al. (2009); Tatar (2005); Vanden and Prevost (1993); and Zimmerman (2000), among others.

Tamil Militant Consolidation:

FINAL
"Consolidation of Militant Authority: Tamil"
8
6
4
2
0

"Alternative Consolidation of Militant Authority: Tamil"
10
7.5
5
2.5
0

"Perceived Monopoly of Authority among Government Critics (Lack of Opposition
8
6
4
2
0

"Perceived Monopoly of Militant Authority (Lack of Militant Competition): Tamil"
10
7.5
5
2.5
0
1960   1973   1986   1998   2011
Time (Year)

Nicaragua Militant Consolidation

FINAL NICARAGUA
"Consolidation of Militant Authority: Nicaragua"
6
3
0

Alternative Consolidation of Militant Authority
8
4
0

"Perceived Monopoly of Authority among Government Critics (Lack of Opposition Competition)
8
4
0

"Perceived Monopoly of Militant Authority (Lack of Militant Competition): Nicaragua"
10
5
0
1960   1973   1985   1998   2010
Time (Year)

(Lack of Militant
Competition)")

Alternative simulated
value for Militant
Consolidation"
eschews reference
values. It calculates
the square root for
"Normalized Probable
Militant Contact"
multiplied by the
"Culture of Violence"
(to the 1.25 power).

Alternative Consolidation of Militant Authority
=(("Normalized Probable Militant Contact:
Youth")^0.5*(Culture of Violence)^1.25)/Initial
Alternative Consolidation of Militant Authority

| 18. Total Militant Resources | $/year (2000 US Dollars) | SIMULATED IN MODEL

REVIEWABLE AGAINST THE CASE-BASED NARRATIVES

4 Inflows (Militant Output, External Funding, Internal Funding, and Savings) (Capital Investment, Militant Payroll, Internal Marketing, External Marketing, and Savings).

Fundraising is a crucial component of militant capacity, whether sourced by an aggrieved diaspora community, a wealthy patron state, or, less sustainably, by coercion of the local community (with obvious costs to long-term militant legitimacy).

Across contexts the "Capital Investment Share of Militant Resources" usually adds a resource inflow | Influential background role for "War Booty Multiplier" of the Greed and Incentives mechanism.

Resource inflows include "Militant Output" and "Savings", but the model highlights the importance of "External Funding" (from politically motived Diaspora members and external patrons) and "Internal Funding" (coerced and voluntary community giving).

External Funding Inputs:
Diaspora funding is simulated in the model based on reference data inputs for migration rates and foreign remittances, combined with model-generated calculations for Diaspora politicization and "Perceived Militant Effectiveness (External)". Reference data for the emigration rate and migrant remittances, exogenous to model configuration, is sourced from the World Bank (2012), and case-specific sources for Sri Lanka (Peebles 1982; Richardson 2005, unpublished datasets; Wayland 2005; etc.) and Nicaragua (Ember et al. [eds.] 2005; N. Hamilton and Stoltz-Chinchilla 1997; Orozco 2008; etc.). Emigration is measured as the net "people per year" who change their national residence to move to a foreign country, and remittances as the $/year (in 2000 USD) that return from abroad. The "Political Grievance Incentive for Emigration" variable considers the "Political" to "Economic Grievances" ratio (across relevant population cohorts), and then multiplies the result by a factor of 0.5 to calculate the percentage of yearly emigration explained by political factors. In model calculations, per capita "Militant Contributions" from politically active Diaspora members are expected to match normal levels of "Remittances" (adapting Fuglerud 1999; Orozco 2008; etc.). This value is multiplied by "Perceived Effectiveness", which reflects organizational success in external militant marketing and "Militant Consolidation" (Byman et al. 2001; Chai 1993; etc.).

External patron support is normalized in the model to an initial monetary valuation ($/year), its implicit index sensitive to shifts in financial assistance offered to armed challengers by external, non-Diaspora actors. Long-run values of "Anti-Government Support" are estimated from case historical data for Sri Lanka | = INTEG ("Total Militant Output"+("External Funds Added to Militant Resources"+("External Funds Added to Militant Resources" *0.25)+("Internal Funds Added to Militant Resources"* 0.25)+"Militant Savings Added to Operational Resources"-"Militant Resources Spent on Conflict Capital Investment"-"Militant Resources Spent on External Marketing"-"Militant Resources Spent on Internal Marketing"-"Militant Resources Spent on Payroll"-"Militant Resources Spent on Savings" , "Initial Total Available Militant Resources")

Primary Funding Inputs (External)
Sinhalese Case:

FINAL
"External Funds Added to Militant Resources: Sinhalese"
1 M / 500,000 / 0
"Militant Funding by Diaspora: Sinhalese"
1 M / 500,000 / 0
"Militant Funding by External Patrons: Sinhalese"
20,000 / 10,000 / 0
Time (Year): 1960 1973 1986 1998 2011

Tamil Case:

FINAL
"External Funds Added to Militant Resources: Tamil"
6 M / 3 M / 0
"Militant Funding by Diaspora: Tamil"
4 M / 2 M / 0
"Militant Funding by External Patrons: Tamil"
800,000 / 400,000 / 0
Time (Year): 1960 1973 1986 1998 2011 |

to compensate for "Militant Capital Losses". And a "Militant Savings" surplus tends to be spread across categories. However, other shifts are more context-specific. For example, in postwar Nicaragua, shifts in the structure, leadership, and organizing motive of armed groups (now fragmented street gangs instead of ideology-infused guerrillas) have led to a reset of resource allocation priorities, with more attention to "Militant Payroll". Depending on the priorities of given militant leadership, minor additions to model structure have been applied.

EXTREME CONDITIONS: In Nicaragua case, return to initial values in mid-1979 due to the success of the FSLN revolution & resultant population shake-up.

(Aryasinha 2001 and 2008; Gunaratna 1999 and 2000; Iyer 2007; Richardson 2005; Samaranayake 2008; Swamy 1994 and 2004; and Wayland 2005; etc.) and Nicaragua (Booth 1991; Booth et al. 2006; Brody 1985; Cameron 2007; L. Hamilton and Inouye 1987; Horton 1998; Kinzer 1991; Molloy 2001; Perla Jr. 2009; Rocha 2010; and Rodgers 2005; etc.). Actual percentage inputs to "Militant Resources" depend on "Government Repression" and "Perceived Effectiveness" (Byman et al. 2001, etc.).

Internal Funding Inputs:

In the model, "Militant Funding from Community Donations" is calculated across population cohorts, according to a reference "Militant Funding" percentage as a baseline for both Nicaragua (Booth 1991; Butler et al. 2005; Zimmermann 2000; etc.) and Sri Lanka (Iyer 2007; Lilja 2009; etc.). This initial percentage is multiplied by the "Militant Legitimacy Multiplier" to reflect armed group success, non-coercion, and identity resonance for continuing inflows of voluntary community donations (Battle 2010; Lilja 2009; Korf 2006; etc.).

"Militant Funding from Community Coercion" is calculated based on organizational need as well as coercive capacity. For coercion to be effective, there must be a credible threat, a sufficient resource base to loot, and sufficient network ties to guarantee community enforcement and efficiency in financial collection. Maximum levels of the "Militant Coercion Effectiveness" index results in a higher share of "Needed Militant Resources" that may be secured for "Militant Funding" (Battle 2010; J. Becker 2006; Korf 2006; and Tilly 1985, among others). The yearly value for "Coercion Effectiveness" is calculated in the model based on the normalized inputs from three causal variables: "Perceived Effectiveness of Militant Organization – Internal", "Available Community Resources", and the "Militant Network Contagion Multiplier". Using "Coercion" offers militant groups access to needed funds, especially when voluntary and external resource mobilization falls short; however, its overuse undermines militant legitimacy and identity resonance within targeted communities.

Nicaragua Case:

REFERENCE

"External Funds Added to Militant Resources: Nicaragua"
40 M
20 M
0

"Militant Funding by Diaspora: Nicaragua"
2 M
1 M
0

"Militant Funding by External Patrons: Nicaragua"
40 M
20 M
0
1960   1973   1985   1998   2010
Time (Year)

Primary Funding Inputs (Internal)

Sinhalese Case:

FINAL

"Internal Funds Added to Militant Resources: Sinhalese"
400,000
200,000
0

"Militant Funding from Community Coercion: Sinhalese"
400,000
200,000
0

"Militant Funding from Community Donations: Sinhalese"
400,000
200,000
0
1960   1973   1986   1998   2011
Time (Year)

Tamil Case:

FINAL

"Internal Funds Added to Militant Resources: Tamil"
2 M
1 M
0

"Militant Funding from Community Coercion: Tamil"
800,000
400,000
0

"Militant Funding from Community Donations: Tamil"
400,000
200,000
0
1960   1973   1986   1998   2011
Time (Year)

Nicaragua Case

REFERENCE
"Internal Funds Added to Militant Resources: Nicaragua"
2 M
1 M
0
"Militant Funding from Community Coercion: Nicaragua"
2 M
1 M
0
"Militant Funding from Community Donations: Nicaragua"
8,000
4,000
0
1960   1973   1985   1998   2010
Time (Year)

Militant Resource Outputs/ Percentage Shares:

- "Militant Resources Spent on Conflict Capital Investment"
- "Militant Resources Spent on External Marketing"
- "Militant Resources Spent on Internal Marketing"
- "Militant Resources Spent on Payroll"
- "Militant Resources Spent on Savings"

"Militant Savings Surplus for Resource Distribution"= IF THEN ELSE ("Previous Year Savings Share of Militant Resources" >"Initial Savings Share of Militant Resources" , "Previous Year Savings Share of Militant Resources"-"Initial Savings Share of Militant Resources", 0)

"Category" of Resources Needed= Additional "Category" Needs"+(Previous Year "Category" Share of Militant Resources*Previous Year Total Available Militant Resources")

Militant Resource Outputs/ Distribution Shares:
Percentage shares of "Total Militant Resources" are distributed into five distinct categories: "Conflict Capital Investment Share", "External Marketing Share", "Internal Marketing Share of Militant Resources", "Militant Payroll Share of Militant Resources", and "Savings Share of Militant Resources".

Relative percentage share allocated per category is determined by the militant leadership's "Resource Prioritization" and influenced by the bureaucratic tendency to maintain previous years' funding for high priority categories, even when faced with financial challenges. Interactive effects across the five categories operate according to militant-defined priorities and resource needs.

Initial resource prioritization across categories is specific to the case context and the particular militant group, and model estimates reflect multi-source and primarily qualitative insights in the absence of reliable quantitative data.

For the Sri Lanka case, reference sources related to militant resource allocation include Aryasinha (2001); Battle (2010); Blood (1988); Byman et al. (2001); Gunaratna (1998; 2000; 2001); Iyer (2007); Korf (2006); R. Levy (1988); Lilja (2009); McGowan (1992); Obeyesekere (1974); Ponnambalam (1983); Richardson (2005); Swamy (1994); and Wayland (2005), among others. Sources for Nicaragua include Booth (1991); T. Brown (2001); Butler et al. (2005); Cameron (2007); A. Cruz Jr. (1989); Horton (1998); Ortega (1978); Ramírez (1999); Rocha (2005; 2006b); Rodgers (2003; 2004; 2006); Tarttar (1993); Tijerino (1978); Wright (1991); and Zimmerman (2000); etc.

Militant savings surplus from the prior year (over the initial %) is reallocated to other categories as a growth priority and as resource need for current and future funding.

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