Feeding Frenzy and Conflict Dynamics: Breaking the Security, Aid and Development Cycles in Africa

Abstract

Recurring civil conflicts in Africa demonstrate reference behaviors that may be explained through integrative causal mechanisms and dynamic feedback processes between peacekeeping, aid, and development interventions at the nexus between security and development. In previous work, I have demonstrated a theoretically grounded approach for combining individual agency and system-level dynamics at the nexus of security-development policy domains for evaluating impact of interventions on resiliency of various actors in instances of recurring armed civil conflict. My theoretical model incorporates individual agency with system dynamics to operationalize a resiliency framework for policy analysis of interventions by regional and international actors. This model has been further developed and tested in an in-depth case study of conflict in Somalia from 1990 to the present day, based on field work in East Africa with government representatives, soldiers, aid workers, and development specialists in six different countries. Important new feedback loops discovered through field interviews help to explain recurring conflict and the sensitivity of combatant as well as societal resiliency to different vectors for implementing intervention strategies. These insights are extrapolated to hypothesize what leads to the three different representative system behaviors for civil conflict, and how data from recent cases in Africa map to these behaviors.

Persistent armed intrastate civil conflicts in the developing world present threats to global security interests that raise difficult policy questions of when and how third party interventions achieve their objectives -- considering normative, material, economic, and political factors. In recent years, scholarly research has improved understanding of the macro-level conditions under which political instability is likely to break out, the dynamics of conflict escalation due to repression and instrumental violence, and the factors that impact conflict duration and termination. However, the ability to accurately predict where and when political instability will erupt into violent civil conflict, and what policies will be most effective to prevent conflict, are elusive goals of both academic and policy communities. In recent years, more than 200 independent variables have been quantitatively explored in the literature using cross-country comparative analyses to improve understanding of the conditions that pose the highest risk of political instability and armed civil conflict. There is some degree of consensus on the significance of fewer than thirty of these variables, and a high degree of consensus on no more than seven (Dixon, 2009; Sambanis, 2002). Discrepancies and inconsistencies around contested variables are most commonly attributed to different theoretical frameworks, data limitations, lack of methods for exploring complex interaction effects between variables, different methods used to operationalize measurements, and scaling effects (Buhaug & Lujala, 2005; Collier & Hoeffler, 2001; Dixon, 2009; Sambanis, 2002).

At the country level, highest risk of conflict and instability is generally agreed to be

strongly and positively correlated to conditions of poverty coupled with a large population (but not population growth or density), economic contraction, weak government institutions and infrastructures (especially in anocracies or partial democracies), heavy reliance of the export sector on primary commodities, political change, and a recent history of armed conflict (Collier & Hoeffler, 2004, 2005; Collier, Hoeffler, & Sambanis, 2005; Collier & Sambanis, 2005; Dixon, 2009; Fearon, 2005; Gates, Hegre, Jones, & Strand, 2006; Goldstone et al., 2010; Ross, 2006).   As a result, humanitarian aid and economic development are often pursued as part of conflict prevention strategies. In a world of shrinking resources, however, the linkage between security and development is an ongoing area of research.   While some general, common themes have been developed, consensus around causal mechanisms and policy solutions is lacking (Tschirgi, Lund, & Mancini, 2010).

Three types of connections between security and development dominate the literature: security as an objective of development, security as an instrument in achieving development goals, and development as an instrument for achieving security goals (Stewart, 2004). Broad conclusions linking thematic and case studies suggest that these connections cannot be considered independenlty of one another (Paul Collier, 2003; Tschirgi et al., 2010):

1. Structural development factors invariably introduce risks of intrastate conflict - although the patterns are different depending on context.
2. At country level, political uncertainty and instability emerge as causes rather than consequences of development failures and insecurity (and therefore provide a key to their remedy). There is a security-politics-development nexus that is highly context specific.
3. External factors, both regional and international, have such influence that country level factors alone cannot explain conflict and development nor provide solutions .

The causal loop diagram shown in Figure 1, based on on the Collier-Hoffman model of the so-called "Conflict Trap", illustrates the interdependencies between these broad conclusions.   In addition to the need for better understanding of these system dynamics, there is a gap in understanding conflict dynamics at the micro-level, and how those dynamics interact with interventions at the sub-national level to effect macro-level conflict dynamics. The lack of understanding is evidenced by two disturbing trends regarding civil conflict: (1) in spite of a substantial decline in the number of armed civil conflicts over the past two decades and increasing levels of external intervention, today's
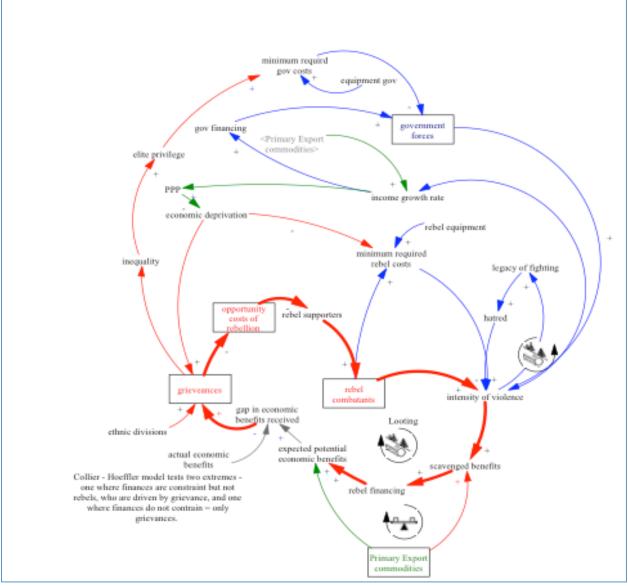
Figure 1 Causal loop diagram of key factors causing conflict in the Collier-Hoeffler model
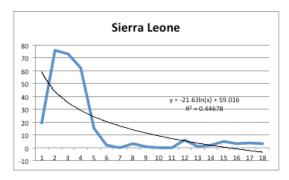
civil conflicts last longer than in the past and result in higher deficits in human security;[1] and (2) today's civil conflicts are increasingly likely to re-occur after wars stop - with around half of civil wars being due to post-conflict relapses. Present-day examples can be found across multiple continents and diverse geo-political and conflict settings that include Myanmar (Burma), India, Pakistan, Thailand, the Philippines, Iraq, Afghanistan, Mali, South Sudan, Yemen, Central African Republic, the DRC, Nigeria, and Somalia.

Data on violent events/year in Africa from 1997-2014 seems to indicate that the thematic conclusions linking security and development are valid.[2] Moreover, the data suggests that one of four reference behaviors characteristic of system dynamics describe most of the patterns seen in

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[1] Human security concerns the protection and wellbeing of individuals and communities, in contrast to more

[2] Data is from the Armed Conflict Location and Event database (Raleigh, Linke, Hegre, & Karlsen, 2010)

the countries experiencing significant armed conflict during that time period. Reference Behavior 1, Overshoot and Collapse, is represented by the conflict in Sierra Leone, where a steep rise in violent events/year peaks over a period of 1-3 years, and is followed by logarithmically decreasing count over a period of at least ten years (Figure 2). Other countries in this category during this time period are Angola, Burundi, Uganda, and Rwanda.[3] Reference Behavior 2, Adaptive Resilience-D, is represented by the conflict in Liberia, where the number of violent events oscillates about a relatively flat or slightly declining mean with a time period of about 15 years (Figure 3). Another country in this category during this time period is Chad.
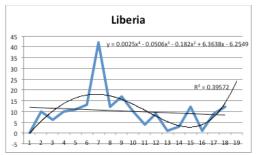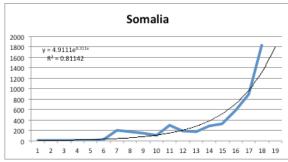

Figure 2 Reference Behavior 1: Overshoot and Collapse

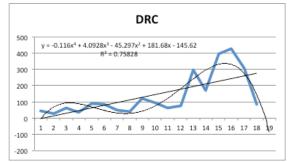Figure 3 Reference Behavior 2: Adaptive Resilience-D

Figure 4 Reference Behavior 3: Exponential Growth

Figure 5 Reference Behavior 4: Adaptive Resilience-I

Reference Behavior 3, exponential growth, is represented during this time period by Somalia, where a relatively slow build –up in the number of violent events/year occurs over a period of up to ten years, followed by a rapid and steep rise in counts (Figure 4). Other countries in this category during the same time period are Nigeria, Sudan, and the Central African Republic. Reference Behavior 4 is a combination of an oscillatory count pattern superimposed over either a linearly or exponentially increasing baseline. An example is the Democratic Republic of the Congo (DRC), which exhibits an oscillatory count pattern superimposed on a linearly increasing baseline (Figure 5). Other countries in this category during the same time period are Mozambique, Kenya, Ethiopia, South Sudan, and the Ivory Coast.

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[3] In Rwanda, a second cycle of Behavior 2 is observed at year 11 post-conflict, when a secondary steep rise is observed, immediately followed by another logarithmically decreasing collapse in number of violent events.

The dynamics underlying these reference behaviors are driven by endogenously driven causal loops within countries, regional feedback loops, and feedback loops introduced by interventions of the international community. It is critical to understand how structural and other system level factors explain outcomes in terms of these different reference behaviors, and what that means in terms of likelihood of conflict persistence and/or recurrence. Reference Behaviors 1 (Sierra Leone) and 2 (Liberia), illustrate different cases in which stable peace appears to have been attained, or may soon be attained, during the 17-year time period examined. Both Sierra Leone and Liberia experienced years of civil war prior to 1997, fueled in part by trade in diamonds.[4] In the case of Liberia, the end of civil war in 1997 was followed by several years of political bickering during which time President Taylor provided support to rebels in Sierra Leone (war crimes for which he was later indicted). Civil war broke out again in Liberia in 2002, just as the war in Sierra Leone (triggered by a coup d'état in 1997) was declared over. In both cases, a steep decline in violent events followed a significant intervention by the UN peacekeepers (year 5 on Figure 1 and year 8 on Figure 2). Sierra Leone, where the UN peacekeeping mission eventually deployed more than 17,000 troops,[5] has since experienced relative peace and stability, accompanied by substantial economic growth. While the initial UN presence in Liberia was equivalent to that in Sierra Leone,[6] low levels of recurring violence continued up until 2014, when Ebola emerged as a major crisis requiring emergency measures by the government and a huge uptick in the number of humanitarian aid workers in the country.

Reference Behaviors 3 (Somalia) and 4 (DRC); illustrate cases of increasing, recurring conflict.   In Somalia, the steep rise in conflict events took off between 2011 – 2012 (years 15-16 on the graph).   During these years, there was not only a major famine, but the African Union Mission in Somalia (AMISOM) successfully dislodged Al Shabaab from the power base it had held in Mogadishu since 2006, while Kenyan troops entered Somalia to attack Al Shabaab rebels accused of kidnapping foreigners on Kenyan soil.[7] AMISOM presence in Somalia has since increased to a combined, driving Al Shabaab out of other strongholds, and a permanent government has been installed in Mogadishu. Yet even so, violent events have also continued to increase, as dynamics between other international (e.g., development and humanitarian aid

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[4] For a timeline of the conflict in Liberia, see http://www.bbc.com/news/world-africa-13732188. For a timeline of the conflict in Sierra Leone, see http://www.bbc.com/news/world-africa-14094194.

[5] UN peacekeeping troop buildup in Sierra Leone was incremental, beginning with 6,000 in 1998, increasing to 11,000 in February 2000 (UN Security Council Resolution 1289), to 13,000 in May 2000, and peaking at 17,500 in March 2001. http://www.un.org/en/peacekeeping/missions/past/unamsil/background.html

[6] UN Security Council Resolution 1509 (2003) initially authorized 15,250 military personnel for UNMIL, see http://www.un.org/en/peacekeeping/missions/unmil/facts.shtml

[7] For a timeline of the conflict in Somalia, see http://www.bbc.com/news/world-africa-14094503. AMISOM is a regional peacekeeping mission operated by the African Union with the approval of the United Nations. It was created by the African Union's Peace and Security Council in 2007 with an initial six-month mandate that has been subsequently extended and expanded to 22,000 troops as of 2014. Original troop contributing countries Uganda and Burundi were joined by Ethiopia in 2014 (http://amisom-au.org/2014/01/ethiopian-troops-formally-join-amisom-peacekeepers-in-somalia/), Kenya in 2012 (http://amisom-au.org/kenya-kdf/), and Djibouti in 2011 (http://amisom-au.org/djibouti/). Troops from Sierra Leone joined AMISOM in 2013 (http://english.cntv.cn/program/newsupdate/20130402/100693.shtml) but were called home in 2014 due to the Ebola crisis.

workers), regional (e.g., peacekeeping troops) and local actors (e.g., politicians and war lords) continue to fuel new and old conflicts while Al Shabaab resorts to terror tactics. Like Somalia, DRC has a long history of corruption and civil war that is impacted significantly by regional actors. However, whereas AMISOM's mission in Somalia is to support the government through peacemaking and peacekeeping efforts, the conflict in the DRC has been called "Africa's World War", as regional actors (Rwanda, Uganda, Angola, Namibia, and Zimbabwe) have at various times provided direct support to rebels.

The System Dynamic community has long held an interest in developing models to study dynamics of state stability and insurgencies (Anderson, 2007, 2011; Choucri et al., 2007; Coyle, 1998, 1999; Díaz, 2008). Many of these models have highlighted the relationship between resiliency, security, and violence in insurgencies, through some variation of the causal loop diagram shown in Figure 7, which treats regional and international actors as exogenous variables. However, once these external actors become involved in conflict, they become endogenous to the system and part of the resource base to impact resiliency of civilians, government, and rebels alike.
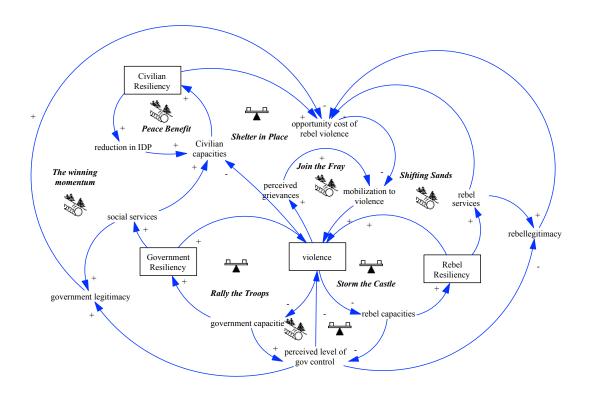
Figure 6 Representative Causal Loop Diagram of Insurgencies

In previous work, I have introduced a theoretically grounded approach for combining individual agency and system-level dynamics at the nexus of security-development policy domains for evaluating impact of interventions on resiliency of various actors in instances of recurring armed civil conflict (Hayden, 2014) . This model incorporated individual agency with

system dynamics to operationalize the USG resiliency framework for policy analysis of third party interventions through security and aid vectors (Figure 7).
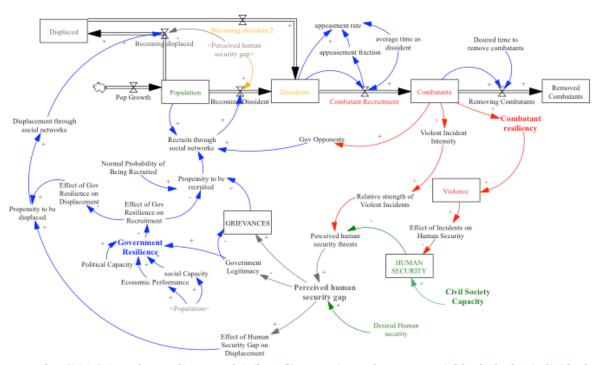

Figure 7 Hayden (2014) Causal Loop diagram of civil conflict contains endogenous variables linked to individual agency sub-modules simulated through agent based modeling.

This model has been further developed and tested in an in-depth case study of conflict in Somalia from 1990 to the present day, based on existing data supplemented by fieldwork in East Africa conducted during the summer of 2014. Structured interviews with over 75 government representatives, soldiers, aid workers, development specialists and scholars in seven different countries (Ethiopia, Uganda, Burundi, Kenya, Netherlands, Switzerland, United States) highlighted the critical need to include regional and international actors as endogenous to the system to explain local level system dynamics in civil conflict. These important new feedback loops provide insights for how interventions interact within system structures and lead to different reference behaviors of recurring conflict.

A key major feedback loop missing from the models above involves minor loops that are different manifestations of the "peacemaking entrepreneurial cycle" that can, in fact, exacerbate conflict. One example, the "Feeding Frenzy" loop (Figure 8) was described by a veteran in the home office of a major international NGO whose mission is to feed those trapped in conflict zones. In this system, humanitarian aid workers contract with local leaders to provide security for food aid delivery. The NGOs in the field deliberately require that all parties to the conflict be represented by the local leaders to ensure that the aid does not exacerbate tensions. All parties to the conflict find a benefit in "cooperating" in this security arrangement as long as they are well paid. Security incidents go down and food is delivered. Eventually, however, the international organization's home office sees that security incidents go down and determines that fewer

resources need to be spent on security. The program manager in the field must bear the news to the local leader that funds have been cut and some people providing security will have to be let go. The local leader (and community) responds by instigating a few "security incidents" to create more of a demand for their services. The home office becomes alarmed; concerned that conflict will soon escalate, they bring field personnel home and put the aid program on hold until further notice. In most cases, as human security continues to deteriorate, they are back within a year or so, with new field personnel and program managers at the home office who start the cycle all over again. In doing so, a local culture of entrepreneurship around the market for security drives predictable, episodic oscillations of low-level conflict. This cycle has been known to last under the radar screen at local levels for decades in some persistent conflicts.

Insert Figure 8 here.

Another loop involves actions just prior to and after successful peacemaking operations (Figure 9). In Somalia, AMISOM has been successful in liberating remote villages from rebels. As they do so, the regionally based peacekeepers advertise their plans to liberate the village well in advance to reduce the risk of civilian casualties. The rebels, knowing that they will be outnumbered, retreat a day or two ahead of the troop advances. However, they only retreat "a little bit", to just outside the reach of the troops into the bush. The troops then march into the village where they meet little to no resistance, although often much skepticism about their intentions as outsiders. The peacekeeping soldiers confine their interactions primarily to the local leaders, with whom they work to establish new systems for managing the peace. Humanitarian aid workers increase efforts to reach the villages with the new security environment there. However, the rebels now control the roads, rather than the villages, and are able to set up roadblocks who prevent supplies from reaching the villages and may even use them as their own resources. Human security eventually decreases in the villages as peacemakers move on to the next campaign, while people left in the village become more and more disgruntled and in some cases worse off then they were before. Rebels are able to exploit the grievances and infiltrate to take control again as the peacemaking troops move on. This pattern has led to large increases in violence and deficits in human security even as AMISOM proclaims increasing victories and liberations.

A counter loop involves the tension between peacekeepers and aid workers. Peacekeeping soldiers may share their rations with the villagers directly to compensate for the lack of supplies that "liberation" has brought upon them. Slowly, the villagers come to trust the soldiers and will inform about rebels who have melted into the background and still control the roads. Humanitarian aid workers, frustrated at being blocked, negotiate with those rebels to gain access to the roads and the villages (rather than work with peacekeepers, in order not to lose neutrality). In so doing, they fund the rebels to fight back against the peacemakers, who then have less to share with the villagers, and even to take revenge on the villagers for cooperating with peacekeepers.

Insert Figure 9 here.

A third example involves development activities supported by international sponsors. In many cases, metrics for these activities are short-term measures to show tangible, immediate progress

on the ground in delivery of new resources. Such metrics do not consider the long-term dynamics and potential for conflict created by the new resource that has been created. A case in point is building new ground wells. Donors may be satisfied with achievements measured in terms of numbers of new wells, people served, and gallons of water pumped. However, these metrics do not take into account tensions at the local level around power over the new well and distribution of the resources. Often, once the representatives of the donor program are gone, new conflicts erupt at the local level, fueling pre-existing conflicts or generating new ones.   These new conflicts often lead to actions such as "spoiling the well". Not only is the new resource lost, but existing social capital and resiliency among civilians is also damaged (Figure 10).

Insert Figure 10 here.

The local level dynamics embodied within these three examples will be tested against micro-level data compiled for Somalia to test their predictive power for

A fourth example is the local level conflict that is triggered by diplomatic efforts by regional and international actors to mediate between combatants. Often, the prestige and privileges that accompany participation in these efforts is enough to create conflict within combatant camps, as well as foster grievances among those who might be overlooked because of their peaceful tendencies.   In this case, peacemaking initiatives are highly coveted and fought over by potential participants (Figure 11).

Each of these loops has been found to be consistent with available local level data in the Somalia conflict from the past five years (Figure 12).

Insert Figure 12.

In all of these examples, the well-intentioned efforts of regional and international peacemakers concerned with security, humanitarian aid, and development workers interact in counterproductive ways to exacerbate the conflict in Somalia, and may explain the increasing level of violence, even in the face of attributed recent successes of peacekeeping operations, the opening up for development, the presence of a large aid community, and strong diplomatic efforts by the international community to strengthen the capacity of the new Federal Government of Somalia.   Subsequent work will 1) explore whether these or similar dynamics can also explain this behavior among other countries that exhibit Reference Behavior 3, and 2) what additional feedback loops and/or conditions may lead to the different outcomes in Africa represented by these four reference behaviors, and 3) to what extent are these behaviors really different, versus the same basic behavior albeit with different timescales and amplitudes?

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