Abstract

Over the last two decades, civil war research has centered around a series of empirical studies on the causal antecedents of civil war. These studies employ cross-sectional time-series data sets to identify the characteristics of a nation-state that make it susceptible to the onset of civil war. These attributes identify the risk set of a country that are more likely than others to experience a civil war. Onset studies have pointed to several syndromes of conditions that are implicated in the onset of civil war. First, grievance based theories have argued that civil war is more likely to occur in countries characterized by high levels of inequity and state repression. Second, greed based models focus on the presence of conditions that give rebels an incentive and capacity to engage in organized armed violence, or low opportunity costs for participation, and the presence of lootable resources, such as illegal drugs or gemstones, that enable rebels to generate revenues to sustain their operations. Related, others point to a weak state syndrome that makes it possible for rebels to launch and sustain an insurgency (covered in more detail in Chapter 4). Finally, an emerging set of studies point to state repression as the trigger that explains both which states in the risk set are likely to experience the onset of civil war and when those conflicts are likely to erupt.
Intro

When do civil wars begin? Some may point to John Brown’s guerrilla strikes on Harper’s Ferry, West Virginia in 1859 as the precipitating event for the US Civil War. Brown, a radical abolitionist along with over 20 other men raided the town, took weapons from the local barracks, and seemed to demonstrate to the South that settlement of the slavery issue would require force (Howard 1978). Most historians date the beginning of the US civil war as the Battle of Fort Sumter in South Carolina, which raged from April 12 to April 14, 1861, a couple year’s after Harper’s Ferry (Detzer 2001). Most courses on the US civil war, however, begin by discussing the constitutional issues of slavery, the Three-Fifths Compromise, then move to the Missouri Compromise, Bloody Kansas, and other events that were antecedents to formal declarations of war between the North and the South of the United States. Which view of the beginning of the US civil war is the most accurate? On one hand, we might think about the onset of a new civil war. In this view, wars start like the beginning of the universe—with a big bang. Similar to religious and scientific arguments over this moment of creation, big bang civil war scholars argue that these conflicts just break out. The central debate is whether rebel opportunities to predate or challenge the state cause this outbreak or whether the intensity of group grievances is the proper tinder. On the other hand, process oriented scholars suggest wars build up, through a dynamic interaction of violence.

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1 Some would argue that this, in fact, was the second US civil war counting the revolution in 1776 as the first civil war.
2 See David Blight’s course at Yale as an exemplar of a course that explains the antecedents, conduct, and aftermath of the US civil war http://oyc.yale.edu/history/hist-119.
The consequences of this implicit choice of studying a big bang or process influence how scholars conceptualize civil war, how they measure it, and how empirically civil war is modeled. In this chapter, I discuss the development of the quantitative civil war literature in the post-cold war era. First, I discuss how civil war is defined and how different scholars then measure this phenomenon. Second, I discuss some of the standard explanations for why civil war begins. Most of these explanations tend to follow a big bang approach that organizes a dichotomy between greedy rebels or aggrieved ones. The greed vs. grievance arguments have structured over a decade of civil war research. I argue for thinking about this more generally as an interaction between states and dissidents and integrating with process oriented arguments built from the repression and dissent literature. Finally, based on a potential synthesis of standard approaches and a process approach, I discuss different future directions for the study of civil war, including how to integrate macro and micro level studies, how to best predict civil war, and thinking about strategic nonviolence as part of a larger repertoire of contention.

**Defining Civil War**

What is civil war? Useful definitions of critical concepts tell us what the phenomena is and what it is not. Standard definitions of civil war stress violence within a state, involving the national government and rebels that produces deaths above a certain amount. Focusing on the intrastate dimension helps distinguish civil war from the interstate variety. Specifying that the violence includes the national government and

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3 See Goertz (2006) for a complete discussion on how to develop and use concepts for social science and with specific applications to the study of war.
rebels helps to distinguish civil war from one-sided violence, such as politicide or genocide (Rummel 1995). Finally, suggesting a death threshold distinguishes civil war from lower level conflict, such as terrorism.4

These differences among types of political violence may be more difficult to neatly discern as initially suggested. For example, war rarely is contained within a state. Civil conflicts may bleed over into other states due to refugees fleeing the violence (Moore and Shellman 2007). Refugees may also be the cause of the civil conflict as they change local demographics, have ties to outside violent networks, and import ideas and materials for the production of violence (Salehyan Gleditsch 2006). Additionally, these forms of political violence can occur at the same time. Terrorism, for example, often occurs in the context of civil war (Findley and Young 2012). Terror can be used to control populations (Kalyvas 2006), spoil the peace (Kydd and Walter 2002), or as part of a larger strategy to force negotiations (Thomas 2014). Finally, an intrastate war may be interrupted by an external power or become internationalized (Themnér and Wallensteen 2014). The current conflict in Syria is an example. These issues make identifying a civil war separate from other forms of political violence complicated. In practice, however, scholars simplify the task by focusing on separating civil war from other kinds of violence and highlighting the reasons why civil war is distinct and uniquely destructive.

Measuring Civil War

4 See Hoffman (2013) for an extensive discussion on defining terrorism, and Young and Findley (2011) for how defining terrorism can influence inferences. See Fein (1990) for a complete discussion on defining genocide.
So far, the discussion is about a conceptual definition of civil war, but in the most recent empirical research on civil war, a great deal of emphasis has been placed on creating an operational definition, or a way to count what is and what is not civil war.

In terms of the quantitative approach to studying civil war, this means an operational definition that suggests coding an event, the beginning of a civil war when internal violence in a state exceeds a given death threshold (see, for example, Small and Singer 1982). Similar to defining the concept, operationalizing civil war is a complicated task.

As Sambanis (2004) notes, in the seminal work on defining and coding civil war, a straightforward definition (e.g., war within a state, involving the state and rebels, that exceeds a threshold) leads to some inconsistencies and likely needs some ad hoc rules to deal with the complexity of defining the concept. For example, how organized do the rebels need to be to considered a group? If we use death thresholds to identify civil war, how do we deal with unreliable reporting? Since civil wars often proceed in fits and starts, how do we count the beginning of a new war as opposed to a continuation of an old war (Sambanis 2004, 816)?

Because of the complexity of creating an operational definition, several opposing lists of civil wars are widely used. Fearon and Laitin (2003), the Correlates of War Project, and the UCDP/PRIO onset of intrastate conflict data (Gleditsch et al. 2002) are all widely used by researchers. Regardless of how these definitions produce different civil war lists (Hegre and Sambanis 2006), nearly all of the operational definitions of civil war include some death threshold or rules about
counting a war within a particular range of battle deaths (Sambanis 2004). The UCDP data (Harbom and Wallenstein 2012) are unique in that they offer different thresholds for battle deaths to distinguish onsets of minor intrastate armed conflict (>25 battle deaths) from civil war (>1000 battle deaths).5

Also implicit in this definitional approach is the belief that civil war begins once the right mix of ingredients is included. In short, civil war will break out when this mixture is right. Given this, an implicit assumption that needs to be explicit is to think about beginning a definition of civil war by acknowledging that it is a conflict caused by the interaction between states and dissidents.6 In other words, there is a process of violence, action and reactions by the state and dissidents that build to a civil war (Young 2008, 2013). This seems like a truism, but it has some critical, overlooked implications. If civil war is a process of violence, then defining it requires identifying the state and dissidents explicitly and acknowledging their contributions to the production of violence. Related, if it is the interaction of these actors that get a conflict above a certain death threshold, then we need to model dissent and repression and the consequences of this joint production of violence.7

Explaining Civil War Onset

6 Regardless of intensity, this assumes violent conflict between two non-state actors is not civil war. Studies on topics such as ethnic riots focus on intrastate conflict that does not necessarily include the state (See Varshney 2003).
7 See Young (2013) for an extended discussion of related points and for a formal derivation of this definition.
The end of the cold war brought a renewed interest to understanding the causes and consequences of civil war. As Fearon and Laitin (2003) showed, civil wars were not on the rise per se, but they were more far more deadly in the post WWII world, more difficult to resolve than their interstate cousins, and also tended to last far longer. Early work on political violence suggested that grievances were the motivating factor for internal rebellion (Brinton 1938, Davies 1962, Gurr 1970). Whether these grievances were due to rising expectations and unfulfilled outcomes (Davies 1962) or relative deprivation (Gurr 1970), the root cause in revolutions lay in grievances whether real or perceived. A standard critique of some grievance based claims for civil war relates to difficulty in identifying subjective grievances (Walker and Pettigrew 1984) or the general ubiquitous nature of grievances across time and space (Muller and Weede 1984). In many of the places of world with the highest levels of inequality, such as Brazil, civil war is not common. Grievance based explanations then fell out of favor in the post-cold war literature.

In contrast, a new post-cold war literature on civil war has tended to privilege structural explanations for civil war onset (Fearon and Laitin 2003, Collier and Hoeffler 2004). In this work, opportunities for rebellion explain why we see civil war occur in some places but not others. For Collier and Hoeffler (2004), greed explains the onset of civil war. Greed can come in many forms but it is prevalent where rebels have opportunities for predation and where opportunity costs of

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8 Classic studies of internal conflict, such as Gurr (1970), either looked at a range of types of political violence or focused more on revolution (e.g., Skocpol 1979).
9 While these two papers are far from the only work in this tradition, each established a whole following and structure the debate even today (Collier and Hoeffler 2004 has 4,580 Google Scholar citations and Fearon and Laitin 2003 has 4,234).
rebellion are low, we should expect the onset of civil war. In the first version, or opportunities for predatory behavior, rebels can use natural resource endowments for financing attempts at becoming the sovereign or monopolizer of violence in a given territory (Grossman 1999). Natural resource endowments can take on several forms, diamonds, oil, or other so-called lootable resources (Ross 2006). While these arguments have suggested that many forms of primary commodities can be used to predate and finance rebellion, more nuanced claims suggest some resources are more easily lootable or translated into rebel finance (Ross 2004, Snyder and Bhavnani 2005). Weinstein (2006) argues that how the rebels finance their conflict can influence not only who they recruit but also how this translates into indiscriminate or targeted violence.

Beyond looting and natural resources, rebels opportunity costs may influence the likelihood of civil war onset. Where the costs of rebelling are low relative to the opportunities for predation and eventual overtaking of the state, we might expect more civil war onsets (Collier and Hoeffler 2004). Conflicts in sub-Saharan Africa, such as Liberia or Sierra Leone, seemed to be explained by this insight. While Collier and Hoeffler interpret poverty as the mechanism linking low income to civil conflict, this is not the only explanation (Sambanis 2004b). In short and a point that will be developed later, the link between poverty could flow through the state, or weak states lead to civil conflict or to opportunity costs for rebels as Collier and Hoeffler (2004) suggest.

Collier and Hoeffler (2004) find that empirical proxies, such as primary commodity exports, GDP per capita, and GDP growth, covary with the onset of civil
war in their data. In their explanation and empirical model, they interpret this to mean that arguments about rebel opportunity costs are useful to explain onset of civil war. By contrast, they find less support for grievances or empirical proxies such as income inequality that might explain variation in their civil war data. Berdal (2005) and Ballentine (2003) soon after this greed vs. grievance story dominated the literature argued for moving beyond it. By 2009, Collier and colleagues agreed writing a piece with a similar set of arguments (Collier et al. 2009). Regardless, the greed story of rebellion had a large policy impact by permeating through the World Bank, leading to dozens of policy papers, a collection of cases studies, and a legion of academic articles.\textsuperscript{10}

Although they do not discuss greed and grievance, Fearon and Laitin (2003) offer a complementary approach, but suggest that state weakness explains the puzzle of civil war. Instead of linking rebels opportunity to predate or poverty to civil war onset, Fearon and Laitin suggest states with weak counterinsurgent capabilities create opportunities for rebellion. These opportunities come in several forms, but factors that increase the probability that rebels can mount a credible offensive are the most important. Fearon and Laitin provide a comprehensive set of empirical evidence, including new data on coding civil war and detailed sensitivity analyses to make sure results are robust to alternative claims, such as grievances associated with religion or ethnicity.

Similar data as Collier and Hoeffler (2004) are used as empirical proxies of state capacity. Whereas Collier and Hoeffler find a strong link between measures of state capacity.  

\textsuperscript{10} See, for example, Collier (2003), Collier and Sambanis (2005), De Soysa (2002) and Regan and Norton (2005).
GDP and civil war and interpret this as support for the opportunity cost story, Fearon and Laitin find a similar empirical relationship and interpret it as inability to effectively counter insurgency (Sambanis 2004b). Fearon and Laitin find a robust relationship between GDP, mountainous terrain, and population and civil war onset and further see this as confirmation for the claims about weak state capacity and the inability to effectively use counterinsurgency. In sum, these seminal pieces suggest that opportunities for rebellion are the critical ingredient to explain the outbreak or big bang of civil war. They use different coding decisions, different data, but both find structural proxies of opportunity to be the most significant factors when using similar modeling strategies.11

In a previous seminal piece on interstate war, Starr (1979) suggested that opportunity and willingness were central ordering concepts in the study of war generally. In short, war should occur where there are opportunities for violence and willingness by each side for such acts. Fearon and Laitin (2003) and Collier and Hoeffler (2004) and subsequent research building on these pieces tend to focus on the opportunity side, albeit for different reasons. If opportunity and willingness is the set of highest ways to order reasons for civil war onset, then this is analogous to greed and grievance but provides a more general way to think about conflict. Greed and grievance then are simply special cases of willingness and opportunity respectively.

11 I do not have the space nor is this the place to offer a complete critique of their empirical approaches. However, both studies tend to examine correlations between weak proxies of concepts with their coded onset of civil war variables. Using quasi-experimental methods, such as propensity score matching, to better identify causal effects suggests that many of the key results are overestimated (Young 2008).
In many ways, Starr’s work is similar to criminological studies that utilize so-called Routine Activities Theory (Osgood et al. 1996). In this framework, crime should occur when there is a motivated offender, a suitable target, and lack of a capable guardian. These three necessary conditions explain crime.\textsuperscript{12} Both theories have been useful in outlining the total possibilities of explanations for violence at an individual or state level. Critiques of each approach have tended to suggest that they are true by definition but cannot give more precise guidance in why some people will be violence or why some states are more prone to war than others (Henson et al. 2010). In the context of this post-cold war quantitative civil war research, opportunities for civil conflict are privileged over willingness. Assuming both portions of opportunity and willingness matter for civil war, willingness accounts are likely underrepresented.\textsuperscript{13}

Similar to greed and opportunity, if we think of grievances as a special case of willingness to rebel, there are arguments beyond the simple grievance story. State repression is certainly an important source of grievance within any society. Lichbach (1987) among others have examined whether state repression leads to mobilizing dissent or demobilizes through deterrence. As Mason and Krane (1989) show, as the repression becomes more indiscriminate and the level increases, the population moves away from supporting the state and more likely to engage in civil conflict. The puzzle of why repression sometimes deters and at other times mobilizes may hinge on this issue of discrimination.

\textsuperscript{12} In international relations, because of anarchy, there is a general lack of a capable guardian.

\textsuperscript{13} It is difficult to account for precise proportions of how each matter. The more general point is that neither is trivial.
Bringing opportunity and willingness arguments together, is a possible path forward. Certain configurations of different states and regime types likely breed more grievance than others (Hegre et al. 2001, Gerges and Mason 2010). Hegre et al. (2001) argue that consolidated democracies, that produce fewer grievances, should be the least susceptible to civil war. Strong autocracies may produce willingness to rebel but offer little opportunity, therefore it is the middle of the regime spectrum where opportunities and willingness are both present and where civil war will occur.

Whether we adopt a greed/opportunity or grievance/willingness approach to explaining civil war, most research assumes civil war breaks out instead of building up through a process of interaction between states and dissidents. The quantitative tradition, in particular, models civil war empirically with a single equation that treats each additional variable as an extra covariate that can raise or lower the probability of a war breaking out in a given country-year.14 Earlier work on repression and dissent tended to avoid discussions of civil war at all instead focusing on how the two sides change behavior conditional on each other (Lichbach 1987, Davenport 1995, Rasler 1996, Moore 1998, 2000). In this broad formulation, dissidents could rebel violently or nonviolently and states choose to repress or accommodate. Central questions relate to how these strategies or tactics interact, which are more successful than others, and how to properly model this interaction.

This research was inherently engaged in micro-level processes and data and was a

14 There are obviously many other ways to model civil war. More recently, a micro turn in the study of civil war has led to more precision in modeling and data collection. See Cederman and Gledistch (2009) and Cunnigham et al. (2009) as examples.
pre-cursor to the more recent disaggregating civil war movement in the mid 2000s (Cederman and Gleditsch 2009).

Work by Young (2013) and Lichbach et al. (2004) explicitly linked the repression and dissent literature with the newer work on civil war. Lichbach et al. (2004) criticized the literature generally and Fearon and Laitin (2003) specifically for not thinking about past conflict processes. Both Young (2013) and Lichbach et al. (2004) used measures of conflict between states and dissidents, or actual dynamic measures of interaction, rather than structural variables with little temporal variation. Young (2013) critiqued the dominant approach building on claims by Ward et al. (2010) showing that these models could explain that poorer states were more likely to experience civil war. Most of the structural or opportunity models used data that varied across cases but not much over time. These models, in other words, could predict where civil war was likely but not when civil war was likely to occur. In the case of Syria, for example, while the Fearon and Laitin or Collier and Hoeffler models might predict [I will run these actual numbers vs. Young (2013)] civil war in the Syrian case, it is unlikely that the year or month could be accurately predicted. Or more importantly, the probability of civil war likely dramatically increased at the beginning of the so-called Arab Spring and subsequent repressive acts instituted by the Assad regime began the process of violence by the state and reactive violence by dissidents.15 From a policy perspective, being able to

incorporate temporal dynamics is an obvious reason for why models built on state-dissident interaction are inherently more useful than structural models.\textsuperscript{16}

While Lichbach et al. (2004) used a conventional single equation model to estimate this onset of civil war, Young (2013) suggested modeling the process in a two stage procedure, which more accurately captured the process that first produced repression and dissent and then how repression and dissent built to civil war. Similar to Shellman et al. (2013), Young (2013) did not completely reject the use of opportunity (e.g., structural or greed) measures, but argued for including measures of state and dissident choice to more accurately predict where civil war was likely to occur. With the inclusion of repression and dissent measures, Young’s (2013) model provided better in and out of sample predictions of where and when civil war would occur. Importantly, like Mason and Krane (1989) and Rasler (1996), Young (2013) finds that repression is the key driver in the process of violence. In the first stage, where leaders are insecure or when they are likely to lose office, they are more likely to use repression. In the second stage, repression increases the likelihood of civil war dramatically. States, as Davenport (2008) suggests, use a law of coercive responsiveness when challenged by dissidents making repression a trigger for more conflict. After a more careful quasi-experimental design, opportunity explanations, which privilege GDP or population still find support, but the overall effects are attenuated (Young 2008).

\textbf{Conclusions}

\textsuperscript{16} See Mack (2002) for a discussion about how current quantitative civil war literature could better communicate results to the policy world.
After tracing some of the progress of the quantitative study of civil war, this chapter showed two important developments. First, civil war studies can be enriched by incorporating the literature, modeling techniques, and insights of the repression and dissent literature. This literature's focus on process, interaction, and microlevel units of observation can be profitable when trying to model complex civil war violence. Second, thinking about a civil war does not have to be done using a dualist approach. Is it greed or grievance? Or opportunity and willingness? Or structure vs. process? The best answer is probably all of the above. Rather than ignoring the insights of any of these literatures, a synthesis is the best approach. The future challenge is weighting the explanations based on context, timing, culture, and other microlevel factors.

While a disaggregation movement in civil war studies began in the mid 2000s, more recently there has been a micro-level turn. Work by Lyall (2010) and Loyle et al. (2014), for example, collect data at precise spatial and temporal units of aggregation to investigate state-dissident interactions within a single country or a small set of countries.\(^{17}\) This general approach favors studying civil war using a more process-oriented approach that incorporates repression and dissent. A challenge, however, is how do we scale these results up? A benefit of the quantitative studies in the early 2000s was their generalizability and the possibility that they represent big trends in post World War II conflict. An obvious tradeoff was the internal validity of the research as data were collected at higher levels of spatial and temporal aggregation. Microlevel studies tend to privilege the exact opposite.

\(^{17}\) Schrodt and Gerner (1994) pioneered this approach in conflict studies decades ago, but the more mainstream adoption just recently began.
We can be more confident that sweep operations in Chechnya from 2000 to 2005 had a precise effect on violence in the region during this time period. We cannot be confident that this result can be applied other kinds of counterinsurgency or applied to Afghanistan or Iraq or even to Chechnya from 1993-1999. We likely need studies that examine both micro and macro results, but macro work because of lower barriers to entry have been more common.

Related, there has been a recent turn towards studying strategic nonviolence. Chenoweth and Stephan (2011) and Stephan and Chenoweth (2008) along with work by Schock (2005) argues that strategic nonviolence is actually a more effective strategy when dissidents use it as compared to violence when challenging a state. Even when faced with a repressive state, possibly the critical driver of a civil war, this tactic can lead to strategic success. Since nonviolence attracts greater international support and sympathy as well as domestic involvement (Chenoweth and Stephan 2011), an increase in the use of this strategy could lead to larger reductions in civil war onsets while still allowing citizens to mobilize in the face of a unresponsive or repressive regime.

Finally, as the need for predictive models grows, incorporating dissident and state interactions along with structural models is likely the most comprehensive approach to explaining the onset of civil war. The quantitative civil war literature rightly pointed analysts, journalists, and observers to weak or poor states. Beyond this sorting mechanism, we still need to understand when these conflicts will develop to strengthen institutions and protect individuals. Early warning models and prediction based on real-time data that deals with the interactions between the
state and dissidents seemed highly unlikely a decade ago, but the reality is that this approach is both feasible and might be the best way to evaluate the factors that lead to civil war onset.\textsuperscript{18}

\textsuperscript{18} See work by Jay Ulfelder on the Mass Atrocities Early Warning Project as an example https://cpgearlywarning.wordpress.com/
Bio

Joseph K. Young is an Associate Professor at American University with a joint appointment in the School of Public Affairs and the School of International Service. His research seeks to understand the cross-national causes and consequences of political violence. Recent work appears in *Perspectives on Politics, International Studies Quarterly, Security Studies*, and other journals.
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