



From Armed Conflict to War: Ethnic Mobilization and Conflict Intensification*

KRISTINE ECK

Uppsala University

This article presents a new line of inquiry into ethnicity and armed conflict, asking the question: are conflicts in which rebels mobilize along ethnic lines more likely to see intensified violence than nonethnically mobilized conflicts? The article argues that the ascriptive nature of ethnicity eases the identification of potential rebels and facilitates a rebel group's growth, leading to an increased risk for war. This proposition is empirically tested using a Cox model on all intrastate armed conflicts 1946–2004; the results show that ethnically mobilized armed conflicts have a 92 percent higher risk for intensification to war. In extending the analysis, the study finds that the vast majority of conflicts intensified in the first year, but for every year a low-scale conflict remained active thereafter, the risk of intensification increased, peaking around year 12.

Previous research on ethnicity and armed conflict has focused in large part on the relationship between ethnicity and the onset and duration of armed conflict, while other facets of armed conflict have received little attention. This article instead addresses the topic of ethnicity and conflict intensification: given the outbreak of armed conflict, are ethnic conflicts more likely to experience intensified violence than nonethnic conflicts? The idea that ethnic conflicts are likely to see high levels of violence is a common contention in media and policy reports and can be found in previous academic research as well (Carment 1993; Väyrynen 1994), yet this contention has not been systematically tested. Instead, cases of ethnic conflict are rattled off as evidence that ethnicity has led to an explosion in violent conflict (Carment and James 1997), with prominent cases such as Bosnian and Rwanda commonly employed to support this assertion. This contention, however, has not been subject to systematic testing and, in particular, ethnic conflicts have not been studied in comparison to nonethnic conflicts, making it impossible to draw conclusions about whether they are indeed more violent or not. As a result, other scholars have challenged the idea that ethnic wars are more violent, arguing instead that violence is a central component of both ethnic and nonethnic conflicts; Kalyvas (2001) points to the Russian and Spanish civil wars, as well as the civil wars in Latin America as examples of nonethnic conflict that have seen high levels of violence. Indeed, there is surprisingly little research on the topic of the intensity of conflict. This stands in sharp contrast to the large body of literature on the relationship between ethnicity and conflict

* I wish to thank Desirée Nilsson, Mats Hammarström, Joakim Kreutz, Lisa Hultman, Hanne Fjelde, Christopher Zorn, Sven Oskarsson, participants at the 2007 Jan Tinbergen Peace Science Conference, and the anonymous reviewers for their comments and suggestions. Replication data and an online appendix are available via the Dataverse Network Project: <http://dvn.iq.harvard.edu/dvn/dv/isq>.

onset and duration (Cederman and Girardin 2007; Collier, Hoeffler, and Söderbom 2004; Elbadawi and Sambanis 2000; Fearon 2004; Fearon and Laitin 2003; Gleditsch 2007; Reynal-Querol 2002; Sambanis 2001). This article thus aims to fill this gap by focusing on the relationship between ethnicity and the risk that a conflict will intensify in violence. Conflict intensification is a highly relevant topic to address, considering that about half of all intrastate armed conflicts that have occurred between 1946 and 2004 have intensified to reach the level of violence associated with war (UCDP 2008); for every civil war like Sudan, Sri Lanka, and Afghanistan, there is a minor armed conflict like Senegal, Georgia, and Bangladesh.

The question of whether ethnicity is indeed a factor that leads to intensified violence remains unanswered, as previous research and debate has remained primarily anecdotal on both sides. What is needed is a systematic empirical analysis of whether ethnic conflicts are indeed more violent than nonethnic conflicts. In terms of ethnicity, I focus on ethnic mobilization, that is, armed conflicts in which the rebel side mobilizes partially or entirely along ethnic lines. I argue that ethnic mobilization provides a clear logic about why ethnic conflicts should generate higher levels of violence. The basic reasoning relates to the fact that ethnic identity can usually be determined while ideological beliefs are more easily obscured. I argue that this ascriptive nature of ethnicity affects the recruitment environment such that ethnically mobilized rebel groups can grow numerically stronger and make more effective use of their resources. This in turn results in a stronger fighting force, more fighters who can be killed, and an amplified threat to government power, all of which facilitate high levels of violence.

The aim of this study is thus to answer the question, *given the existence of an ongoing intrastate armed conflict, does ethnic mobilization increase the risk of the conflict intensifying to war?* Intensification as it is used here indicates an increase in violence, and so a distinction is made between armed conflict and war: intrastate armed conflict occurs as soon as a minimum threshold of 25 battle-deaths in a year have occurred, while war is the occurrence of widespread violence, operationalized as 1,000 or more battle-deaths in a year. This facilitates an examination of the movement from low-scale armed conflict to the high-fatality violence of war. It is important to highlight that the focus on intensified violence, rather than its onset or duration, is a key distinction between this article and previous research on ethnic conflict.

In the first part of the article, I elaborate on the distinctive features of ethnic mobilization and how it is related to conflict intensification. In the second part of the article, I empirically evaluate the proposition that ethnically mobilized conflicts are more likely to see intense levels of violence than nonethnically mobilized conflicts using cross-sectional time-series data on all intrastate armed conflicts, 1946–2004. I employ a Cox proportional hazards model to evaluate this proposition and find that conflicts in which the participants mobilize along ethnic lines indeed experience an increased risk of intensification to war: they have a 92 percent greater risk of intensifying to war than nonethnically mobilized conflicts. Finally, I extend the analysis and find that the majority of conflicts intensify in the first year, but that for every year a conflict remained active thereafter the risk of intensification increases until it peaks around year 12.

Ethnic Mobilization and Intensified Violence

The facet of armed conflict of interest here is the intensification of violence: given that an armed conflict breaks out, does ethnic mobilization help us to understand whether violence will remain at low levels or will intensify to war? The question of the intensity of violence observed in armed conflict after the

initial onset is rarely addressed explicitly, yet is of theoretical relevance since what drives a group of individuals to start an armed conflict and what causes these conflicts to intensify in violence may in fact differ, particularly in regards to ethnically mobilized conflicts.¹

To better understand ethnic conflict, it is necessary to distinguish between ethnic mobilization, that is, when conflict actors recruit along ethnic lines, and other aspects of ethnicity, such as the ethnic composition of a country. The argument here does not concern whether ethnicity itself is inherently conflictual; indeed, previous research highlights that the vast majority of ethnic groups live in peace (Fearon and Laitin 1996). Nor are structural measures of ethnic composition in a country, such as the level of ethnic fractionalization, of primary interest here as ethnic mobilization relates specifically to the rebel group rather than the populace at large. Ethnic mobilization also differs conceptually from ethnic grievances, or the idea that conflicts can be deemed ostensibly ethnic in nature due to the grievances expressed by one or more of the conflict parties. The focus is rather on how membership in an ethnic group can be important for patterns of rebel mobilization. Ethnic mobilization indicates that the rebel side is assembled at least partially along ethnic lines and as such, it can be easily empirically observed.

Why is the distinction between ethnic mobilization and other aspects of ethnicity important? In part, because the literature on ethnic conflict has been mired in debates about the relative merits of labeling conflicts as ethnic. On the one hand, many have argued that the ascriptive nature of ethnicity makes ethnic conflicts distinct from other types of conflicts. These researchers suggest that ethnic discrimination and differential treatment in divided societies create circumstances likely to result in violence along ethnic lines (Gurr 2000; Horowitz 1985; Kaufmann 1996) and that identity politics are particularly persistent and provide a strong impetus for violence when coupled with discrimination or repression. On the other hand, opponents suggest that ethnic conflict should not be considered a distinct phenomenon. Mueller (2000) argues that ethnic warfare differs little from nonethnic warfare in that both are waged by small groups of combatants which purport to fight in the name of a larger entity. Along similar lines, Kalyvas (2001) and Kalyvas and Kocher (2007) argue that ethnic and nonethnic conflicts alike can suffer from extreme levels of violence. Some go so far as to suggest that the concept of ethnic conflict is theoretically weak and should be abandoned entirely (Gilley 2004; King 2001). Those skeptical to the concept of ethnic conflict also point to the fact that most previous research has found that measures of ethnic composition such as the level of ethnic fractionalization and ethnic polarization in a country have little or no effect on the likelihood that a country will experience the onset of war, though this finding remains contested (Fearon and Laitin 1996; Hegre and Sambanis 2006; Reynal-Querol 2002; Sambanis 2001).

¹ Empirical studies of intrastate armed conflict have recently begun to disaggregate between various facets of conflict, though there have been only a handful of studies that examine intensification. Some researchers have examined escalatory processes in intrastate conflict, but they have used the Minorities at Risk data or other data on self-determination groups, and thus cannot distinguish between ethnically mobilized and nonethnically mobilized conflicts (Melander 1999; Öberg 2002; Regan and Norton 2005; Sambanis and Zinn 2005). Pearce (2005) studies the intensity of religious intrastate conflicts, but her analysis is based on a misreading of the Uppsala-PRIO data. Kalyvas' (2006) work has inspired a burgeoning research field on the dynamics of intrastate violence, though it does not directly address the question of ethnic mobilization; Kalyvas also focuses on violence against civilians rather than battlefield violence. Nonetheless, his work provides a number of insights for understanding conflict intensity. It is also worth noting that the field of interstate conflict has a rich history of distinguishing between different levels of conflict intensity, both theoretically and empirically (cf. Ben-Yehuda and Mishali-Ram 2003; Brecher and Wilkenfeld 1997; Bueno de Mesquita, Morrow, and Zorick 1997; Eberwein 1981; Fearon 1994; Morgan 1994; Reed 2000; Senese 1997).

The number of claims made on both sides of this debate exemplifies the contested nature of determining exactly what a conflict is about and whether the key issues are indeed overtly ethnic in nature. The concept of ethnic mobilization, while related, is distinct from the ethnic grievances literature: rather than focus on the extent to which the claims of the parties are “ethnic” in nature as the grievances literature does, ethnic mobilization is concerned with observable patterns of rebel recruitment. Conceptually, ethnic grievance is concerned with the sources of motivation, while ethnic mobilization is concerned with rebel organization. The two concepts are, however, similar to the extent that conflicts which are considered to be driven by ethnic grievances will mobilize along ethnic lines. But ethnic mobilization is broader in that other conflicts which do not see ethnic grievances may also mobilize along ethnic lines; in these conflicts, ethnicity functions purely as an organizational factor, a means by which to mobilize support. Rebel groups in these conflicts may use ethnicity as a basis for organization for a number of reasons. Leaders often base recruitment on their existing networks, which are sometimes grounded in ethnicity; these existing ethnic networks can be harnessed by leaders as a means to mobilize support, even if the demands of the group do not relate to ethnicity. Ethnicity may also be a key for recruitment due to the geographical patterns of rebellion: leaders tend to recruit locally in their immediate surroundings, particularly at the outset of conflict as they attempt to build an organization. If the country is geographically divided along ethnic lines, this may mean that those who are recruited all belong to the same ethnicity due to geographic imperatives. Thus on a conceptual and empirical level, ethnic mobilization should include all cases of ethnic grievance, but will also include many other conflicts in which the expressed grievances of the warring party do not take ethnic overtones.²

I argue here that the ascriptive nature of ethnicity has crucial implications that lead to a more accommodating recruitment environment in intrastate conflicts.³ Unlike ideological beliefs, ethnic belonging can be established, usually with only cursory efforts. Ethnic identity markers can be given by physical attributes, names, language, place of origin, location of residence, through government identification cards or registers, or through common knowledge of the local community, to give but a few examples. Chandra (2006) argues that because membership in an ethnic group is determined by descent-based attributes, visibility is an intrinsic property to ethnic identity. By visibility she means that “information about an individual’s ethnic identity categories...can be obtained through superficial observation” (Chandra 2006, 399).⁴ Ethnicity is not a fixed entity, and individuals can try to distance themselves from an ethnic group should it become involved in conflict. This may prove somewhat difficult, however, as descent-based attributes are difficult to change or mask in the short term. Cultural and social practices particular to the ethnic group may be hidden, but government registries or local knowledge of ethnicity prior to it becoming

² I focus on ethnic mobilization rather than ethnic grievances for a number of reasons. First, previous research indicates that ethnic mobilization better explains rebellion than ethnic grievances. Scarritt and McMillan (1995) find that mobilization is more important than grievances in their large-*N* study of ethnic rebellion, while Lindström and Moore’s (1995) systems analysis finds that mobilization has a direct impact on ethnic rebellion and that any effect of grievances operates only indirectly via mobilization. Furthermore, I expect ethnic grievances to be empirically highly correlated with the main variable of interest, ethnic mobilization, and to include it would be to introduce multicollinearity into the model.

³ Cf. Caselli and Coleman (2006) for a formal model on how ascriptive aspects of ethnicity can be the basis for creating coalitions which lead to intensified violence.

⁴ In her definition of ethnicity, Chandra notes that ethnicity is a subset of descent-based identity categories. What definition one uses for ethnicity is not central to the argument here; ethnic mobilization is based on the observation that ethnic groups explicitly mobilize along ethnic lines. How that ethnicity is defined by the rebel group and what markers it uses to identify co-ethnics is less relevant to the argument than the fact that they do so. Per definition if, as the group has mobilized along ethnic lines, it has found a means to identify co-ethnics.

securitized can “out” those seeking to hide their ethnicity. Determining ethnicity is certainly not failproof and individuals can err, but ethnic categories are visible enough on average to permit guesses. Ideological beliefs, on the other hand, are far easier to obscure.

A rebel group is almost always militarily weaker than the government with which it fights. To attain military victory or to force concessions from the government, the rebel group must demonstrate high levels of ability and resolve. To do so requires organizational skills, resources, and a steady stream of manpower. A fundamental problem that all rebel groups face is to identify and recruit supporters and active fighters. For the group to maintain its existence or to grow, it must obtain new members, which can replace those captured or killed in combat and those which leave the group. Because most rebel groups are small at the outset, they have limited resources for recruitment efforts and must weigh the benefits of recruitment against the other needs of the group, whether related to sustenance, military operations, preventing attrition, or maintaining relations with the local community.

Ethnic mobilization affects the recruitment environment and eases recruitment efforts in a number of ways. The most obvious advantage is that the target group for the rebel's efforts can be more easily identified, as ethnic affinities constitute an organizational link in divided societies (Horowitz 1985). In easing the identification of potential rebels, a group can then use its resources more effectively by focusing its efforts on those most likely to join; thus, with the same amount of resources, a larger group can be recruited than without the additional information on the target group. Ethnically mobilized conflicts thus diminish the coordination costs involved in recruiting fighters and supporters.⁵ In the language of collective action, ethnicity eases the identification of free riders (Hardin 1995; Olson 1971). The free rider problem is most acute when potential recruits can blend in with the populace at large; ethnicity provides a marker to identify these potential recruits (Lichbach 1995, 214).

Rebel mobilization based on nonmaterial incentives such as ethnic affiliation may also result in more credible movements and more committed rebels (Weinstein 2007). Weinstein argues that to be able to recruit high-commitment individuals, a rebel group must be able to make credible promises for future benefits. Shared ethnicity provides a valuable social endowment that rebel leaders can make use of to convince potential recruits that the group's promises are credible. Arguably, in ethnically mobilized conflicts not only is the group easily identifiable, but the loyalties of the population are more fixed. Unlike in ideological conflicts, where the warring parties must compete for loyalty and where loyalty is more difficult to assess, ethnically mobilized conflicts reduce competition for the population. Similarly, Sambanis (2001) argues that ethnic wars differ from nonethnic wars because potential rebels make choices based on ethnic affinities rather than material payoffs, generating a sort of social capital. Rebels in ethnically based groups may also experience increased benefits in the form of nonpecuniary rewards that induce fellow members from the same ethnic group to join the movement as emotions like solidarity and group identification are intangible incentives that generate rebel recruits (Gates 2002).

Because of ethnicity's ascriptive nature, it is also more difficult for the government to co-opt factions within an ethnic group. Attrition should be lessened in ethnically mobilized conflicts: ethnically mobilized rebels will find increased difficulties in leaving the rebel group because they risk retribution from within the larger ethnic community. Even those who put little stock in their ethnic

⁵ Collier and Hoeffler (2002) use the concept of ethnic fragmentation as a proxy for coordination costs of a rebellion: they argue that the greater the ethnic fractionalization, the greater the coordination costs and the lower the risk of war onset.

identity are thus forced to adhere to ethnic mobilization because extremists within a group may impose sanctions on those who do not contribute to the cause.⁶ Ethnic mobilization thus eases many of the organizational problems that a rebel group faces. The group is able to overcome the information problem in identifying potential rebels, helping to minimize coordination costs in building up a military organization. Because of this, rebels are also able to maximize their use of limited resources to focus instead on military operations rather than recruitment.⁷ Likewise, attrition is less of a problem as the rebels are more highly committed and run a greater risk of social retribution should they leave the group.

Even if the ethnically mobilized rebel group fails to convince recruits about the advantages of joining, individuals may enlist anyway. The reason relates to the logic of the security dilemma (Jervis 1978; Posen 1993). The fact that the rebel group is mobilized along ethnic lines implicates the entire group in the struggle. This makes the civilian population of that ethnic group a ripe target for government repression, as the state attempts to root out rebel opposition. This situation in turn creates incentives for an individual to join the rebel group, to ensure defense of the civilian population of the ethnic group against possible governmental retribution. Thus, even if a member of the ethnic group does not agree with the rebel movement, he may join anyway to protect himself and his family. A security dilemma can quickly result in a conflict spiral, as parties get caught up in a vicious circle of action and reaction. Each defensive action one side takes is interpreted as proof by the other side of the threat, and in turn justifies further escalation (Jervis 1976; Kaufman 1996; Pruitt and Kim 2004). Thus, the security dilemma ensures that efforts by each side to defend their interests are seen as threats to the other side, resulting in intensified violence. This dynamic is not expected to occur in conflicts in which the participants mobilize along ideological lines because the participants are not easily identifiable and thus a specific subsection of the populace will not be threatened with government retribution. Easy identifiability not only eases rebel mobilization but also narrows a government's search for potential rebels, and thus the entire ethnic group risks government retribution.

In sum, ethnicity's ascriptive character affects the recruitment environment in that it eases the recruitment problem for rebel forces and prevents attrition. Ethnic mobilization takes advantage of social endowments to generate more credible movements and more committed rebels. Individuals may also be more inclined to join ethnically mobilized rebel groups because the very existence of that group creates a security dilemma for the civilian population that forces them to support rebellion in self-defense. This advantageous recruitment environment in turn results in a stronger fighting force and an increased threat to government power, facilitating high levels of violence. This leads to the main hypothesis of this article:

Hypothesis: *Intrastate armed conflicts that mobilize along ethnic lines will be more likely to intensify to war than those that do not mobilize along ethnic lines.*

⁶ Kalyvas (2006, 103) argues that participation of individuals in armed conflict is primarily dictated by survival considerations, and that this is equally the case for ethnic and nonethnic conflicts. I differ from Kalyvas in that I contend that survival considerations can differ based on whether the conflict is ethnically mobilized or not. Because the ascriptive nature of ethnicity, opting out of participation in a rebel movement may not be a viable option in ethnically mobilized conflicts.

⁷ This argument does not suggest that the violence itself is somehow "ethnic." Kalyvas (2006, 390) argues that, "violence in an 'ethnic' or 'class war' is not automatically or necessarily ethnic or class violence." This study would neither agree nor disagree with this assertion. I argue that ethnic mobilization should be correlated with a higher risk for war because ethnicity eases various organizational factors, in turn freeing resources for fighting and ensuring a strong rebel force (and thus, more fighters which can perish). This does not speak to the individual motivations for violence or suggest that violence in ethnically mobilized conflicts itself is driven by ethnic motives.

Data Structure and Statistical Technique

I employ a Cox proportional hazards model for examining the transition from armed conflict to war (Cox 1972). The Cox model is advantageous for several reasons. It is useful for addressing the issue that some of the data are right censored; that is, all ongoing conflicts can be thought of as at risk for intensification to war, but because they are not examined after a certain date (i.e., 2004) subsequent transitions to war remain unobserved. The Cox model understands that these cases are censored rather than true zeros; a logit model, for example, does not distinguish between a zero occurring because the case failed or occurring because the case was censored. The Cox model also allows for heterogeneity across units while controlling for time. Cox can easily manage time-dependence, which is critical as it is likely that the specific function of the hazard rate will vary depending on how long the conflict has been ongoing. Even though the duration of conflict itself is not the focus of this article, the research question has an implicit temporal aspect for which the Cox model is advantageous (Box-Steffensmeier and Jones 1997).

In this article, the focus is on the transition from the state of armed conflict to the state of war; in duration terminology, an armed conflict survives up until the point when it makes a transition to the state of war, at which point a failure occurs. A conflict remains in the risk set as long as it is active, and if a conflict ends without ever escalating to war it simply exits the risk set. The primary focus here is on modeling the hazard rate, which reflects the risk an object has of failure at any moment in time, given that an event has not yet occurred. I do not have any theoretical expectations about the specific nature and shape of the baseline hazard rate, making the semi-parametric Cox preferable to parametric models (Box-Steffensmeier and Jones 2004). Using a semi-parametric model instead of a parametric model is advantageous because if the distribution were to be parameterized incorrectly, the interpretation of the models might be erroneous (Bergström and Edin 1992). The hazard rate of an event of interest $h(t)$ in the Cox proportional hazards model is defined as

$$h(t) = \lambda_0(t) \exp(\mathbf{X}_{it} \beta),$$

where \mathbf{X}_{it} is a vector of covariates, and $\lambda_0(t)$ is an unspecified baseline hazard. Because the partial likelihood function is based in the ordering of the failure times, I use the Efron method for handling coterminous events (Efron 1977).

Data

The empirical analysis uses time-series data on all intrastate armed conflicts, 1946–2004. Each *conflict-year* constitutes an observation, and a given country can have multiple ongoing conflicts at the same time, all of which constitute separate cases. Many countries, such as India and Burma, have numerous separate conflicts and so it is important to distinguish between these different conflicts when addressing the question at hand; for that reason, a conflict-year (as opposed to country-year) dataset is advantageous. Thus, all intrastate armed conflicts constitute the risk set and once a conflict intensifies to war, a failure occurs.

I employ the Uppsala-PRIO conflict dataset (Gleditsch et al. 2002), which defines intrastate armed conflict as a contested incompatibility concerning government or territory between the government of a state and a nongovernmental party that results in at least 25 battle-related deaths in one calendar year (UCDP 2008). The Uppsala Conflict Data Program (UCDP) differentiates between two levels of intensity that these armed conflicts can reach: a minor armed conflict is defined as a conflict which results in 25–999 battle-deaths in 1 year, while war

results in 1,000 or more battle-deaths.⁸ UCDPs data are advantageous because it is the only armed conflict dataset that systematically distinguishes between different levels of conflict intensity; other datasets on intrastate armed conflict employ only a single threshold and thus cannot be used for examining shifts from lower to higher levels of fighting. In keeping with current praxis, if an armed conflict is inactive for 10 years or more, I consider any subsequent activity to constitute a new conflict onset (Gates and Strand 2004).⁹ The resulting population of conflicts totals 202 during the period 1946–2004.

The variable *war* is a dummy variable for whether the armed conflict reached over 1,000 battle-deaths in a given year; this variable determines when failure occurs. The principal explanatory variable is *ethnic mobilization*, which is a dummy variable and is coded using the ethnic war variable from Fearon and Laitin (2003). It is defined as all cases of armed conflict in which the rebel side mobilizes partially or entirely along ethnic lines; Fearon and Laitin code these cases as ethnic if ethnicity was used as an explicit mobilization criterion or if de facto the warring parties were organized along ethnic lines.¹⁰ I have coded as ethnic war all cases of either total or partial ethnic mobilization. In practical terms, partial mobilization occurs when the rebel group mobilizes both along ethnic and other lines, so that the group is not identified *solely* with one ethnic group. One example is UNITA (União Nacional para a Independência Total de Angola) in Angola 1975–2002, which was associated with both ideological (Maoist) and ethnic (Ovimbundu) recruitment patterns. Another example is the Darul Islam/Permerstra movement in Indonesia, 1953–1961 in which several rebel groups based recruitment primarily along ethno-regional lines; these groups allied with a military faction, and the entire movement was united by a common interest in socialism. I expect the argument presented in this article to apply to cases that are characterized by ethnic mobilization regardless of whether the movement was mobilized entirely or partially along ethnic lines. As long as the rebel group mobilizes along ethnic lines to some extent, the ethnic group will become associated with the rebellion; that others are also involved in the rebellion does not negate the association of one ethnic group with it. Thus, the logic of the argument presented here should apply equally to cases of both partial and total ethnic mobilization.

Fearon and Laitin include fewer cases than Uppsala-PRIO because they employ a higher fatality threshold for inclusion.¹¹ Coding of the additional Uppsala cases comes from Kreutz (2006), who applies the same criteria for ethnic mobilization as Fearon and Laitin.¹² There are a total of 108 ethnically mobilized conflicts, 91 nonethnically mobilized conflicts, and 3 conflicts that shift between ethnic and nonethnic mobilization over the period of observation; this is due to an older rebel group being replaced by a new rebel group that mobilizes differently. It is worth noting that aside from these three cases, the measure is not dynamic, raising the question of whether there could be endogeneity in the data; that is, could war lead to ethnic mobilization rather than the other way around? In practical terms, this is not a possibility as the research design is structured so as to no longer observe conflicts after they have intensified to war, but there is a

⁸ In the past, UCDP has coded a third category, intermediate, as well. This category is defined as resulting in 25–999 battle-deaths in 1 year, with at least 1,000 battle-deaths over the course of the conflict; it thus concerns the cumulative rather than annual level of battle-deaths and is not comparable to the minor armed conflict or war categories. In this article, I have treated all intermediate conflicts as minor conflicts.

⁹ Inactive periods shorter than 10 years that are preceded and followed by active years are included in the risk set as part of the same conflict spell.

¹⁰ Personal correspondence with James Fearon, June 5, 2008.

¹¹ Fearon's dataset is more limited in scope than Uppsala's as it includes only armed conflicts that cause more than 1,000 fatalities over the course of fighting and 100 annual fatalities.

¹² Kreutz does not code conflicts ongoing in 2004. These remaining cases were coded by the author, again using the same criteria as Fearon and Laitin.

question of whether the experience of violence over time even at low levels can lead to ethnic mobilization. This does not seem to be a problem empirically as rebel groups are quite static in regards to their decision to mobilize ethnically or not, and the original decision about mobilizing along ethnic lines or not probably has a certain path dependency to it (cf. Weinstein 2007 on path dependency in rebel mobilization).¹³

I also include several variables to control for possible spurious effects because they have the potential to affect both the independent and dependent variables. It is worth noting that because most of the existing empirical research on intrastate armed conflict has focused on onset, duration, and termination rather than intensification, there are no established conventions in terms of model specification.

The ethnic composition of a country may affect the likelihood of ethnic mobilization. Highly fractionalized countries where ethnic groups are small may create disincentives to ethnic mobilization as the ethnic group may provide too narrow of a recruitment base to make ethnic mobilization viable. Ethnic composition may also affect the likelihood of war, and so I include two measures for ethnic diversity. The first, *ethnic pluralism*, is a measure of the share of the population belonging to the largest ethnic group. The second, *ethnic fractionalization*, gives the probability that two randomly drawn individuals in a country are from different ethnolinguistic groups. I also include a squared measure for ethnic fractionalization to investigate whether there the relationship may be nonmonotonic. Data for both measures are taken from Fearon and Laitin (2003).

Whether the aim of an armed conflict concerns government or territory may affect the patterns of mobilization. It is also possible that territorial conflicts generate less violence as they take place on the periphery and deal with issues that are more easily divisible than governmental power, so a variable measuring the conflict *incompatibility* is included. This distinguishes between two types of conflict issues: the first is government conflicts, which concern the type of political system, the replacement of the central government, or the change of its composition.¹⁴ The second is territorial conflicts, which concern the status of a specified territory, such as secession or autonomy (UCDP 2008).¹⁵ This is a dummy variable, with territorial conflicts coded as 1.

Whether the country is democratic or not is also included as a control, as democratic systems are likely to better provide alternate channels for group mobilization. *Democracy* is a dummy variable for whether the country is a consolidated democracy or not; a country is considered democratic when scoring 6 or higher on the Polity2 scale. A measure of *autocracy* is also included in the model (operationalized as a score of -6 or lower on the Polity2 scale) (Marshall and Jaggers 2002). *Population* is included to control for the possible effects of country size; it is measured in thousands and is logarithmically transformed to adjust for the exponential nature of the data. *Per capita income* is measured in thousands of

¹³ Because the data is set up as conflict-year, all active rebel groups in a given year are aggregated into one "side b," or opposition. In conflicts with multiple rebel groups, it is always possible for a new rebel group that mobilizes along different lines to enter the conflict. It would thus be advantageous to use disaggregated data that measured each rebel group separately, to capture the individual recruitment strategies of the different rebel groups. Such data is currently not available for ethnic mobilization, but a new dyadic dataset from Harbom, Melander, and Wallensteen (2008) should facilitate such data collection in the future.

¹⁴ According to UCDP (2008) "'type of political system' mostly concerns, for example, constitutional changes from a one-party system to a multiparty system or monarchy to republic; 'replacement of the central government' is the classical overthrow; and, 'the change of its composition' is usually about the replacement of cabinet members, the prime minister or the president.... A governmental incompatibility concerns the structure or distribution of authority."

¹⁵ Generally, an incompatibility cannot deal with territory if it concerns the whole state, unless it is a case of irredentism; the whole state cannot become independent or autonomous from any other unit, as it is already independent. There can only be one incompatibility over government in a given year, but there can be several territorial conflicts (UCDP 2008).

constant 1996 U.S. dollars; data for both population and per capita income come from Gleditsch (2002). Democracy, autocracy, population, and per capita income are lagged by 1 year.

I also control for state military strength, as it may affect a state's ability to suppress or inhibit ethnic mobilization. *Military personnel* is the number of military personnel in thousands. The data are taken from the Correlates of War military capabilities dataset, version 3.02 (Singer, Bremer, and Stuckey 1972), and are lagged by 1 year.

Finally, I include a measure for whether there is a *secondary warring party* supporting the rebels. This variable captures whether an external state has become militarily involved in the conflict by sending its troops to support the rebels; it is a dummy and the data come from UCDP. While this is strictly speaking not a control variable in the sense that it controls for a spurious relationship, it is nonetheless interesting to include to examine whether external military support plays a role in conflict intensification.

Because several of these control variables are time varying, there is a risk for serial time dependency, that is, that the observations may not be conditionally independent. I address this potential problem by using robust estimators, which relax the assumption that the observations are independent (Lin and Wei 1989) and produce more accurate standard errors by weighing based on the fit of the data. Because a country can have multiple ongoing conflicts, I cluster on country to control for unobserved characteristics at the country-level.

Empirical Analysis

The central hypothesis concerns the relationship between ethnic mobilization and the risk that a conflict will escalate to war. Table 1 reports the results of the Cox proportional hazards models. In Model 1, ethnic pluralism is included, while in Model 2 it is substituted for the ethnic fractionalism variable; Model 3 includes a squared measure of the ethnic fractionalism variable. Model 4 includes the military personnel variable; it is advantageous to run a separate model with this variable as it has missing data and thus limits the risk set. Finally, Model 5 includes the secondary warring party variable. The hazard ratios are reported, for which a value over 1 indicates an increased risk of war and a value under 1 indicates a decreased risk of war.¹⁶

I turn first to Model 1. The results show clear support for the hypothesis presented here. The main explanatory variable, ethnic mobilization, is positive and significant at the .05 level. The hazard ratio for ethnic mobilization suggests that conflicts where the participants mobilize along ethnic lines have a 92 percent higher risk of intensifying to war than nonethnically mobilized conflicts. The results reported in Models 2–5 are largely similar: ethnic mobilization is positive and conflicts that mobilize along ethnic lines have a 68–82 percent higher risk for war when compared with nonethnically mobilized conflict across the model specifications. If we compare this to related research fields, Fearon (2004) finds the ethnic mobilization variable to be positive but not statistically significant in his study of conflict duration, suggesting that the correlates of duration may differ from those of intensification.¹⁷

¹⁶ Hazard ratios are simply the exponentiated coefficient estimates from the hazard rate form of the model. For a one unit change in the covariate in question, the percentage change in the hazard is simply $100 \times (\text{HR} - 1)$. For example, if the hazard ratio for a covariate is 1.25, this means that a one unit increase in the covariate leads to a 25 percent higher risk of failure. Hazard ratios (like coefficient estimates) are affected by the original unit of measurement for the variable, and they are invariant to the values of the other covariates.

¹⁷ As noted in footnote 11, Fearon includes fewer cases than Uppsala-PRIO. It is difficult to conclude therefore whether the differing effect of the ethnic mobilization variable is due to empirical differences between the phenomena or due to data and model disparities.

TABLE 1. Risk of Conflict Intensification, 1946–2004

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>
Ethnic mobilization	1.92 (2.43)**	1.68 (1.89)*	1.71 (1.96)**	1.79 (2.08)**	1.82 (2.15)**
Ethnic pluralism	2.58 (2.17)**			2.47 (2.01)**	2.90 (2.38)**
Ethnic fractionalization		0.50 (−1.89)*	1.33 (0.17)		
Ethnic fractionalization, sq.			0.34 (−0.61)		
Per capita income	1.00 (−0.01)	1.00 (−0.03)	0.99 (−0.10)	1.00 (−0.04)	0.99 (−0.13)
Population	0.99 (−0.11)	1.03 (0.32)	1.04 (0.45)	0.94 (−0.64)	1.02 (0.20)
Democracy	0.53 (−1.80)*	0.49 (−1.98)**	0.50 (−1.95)*	0.54 (−1.72)*	0.57 (−1.56)
Autocracy	1.19 (0.70)	1.15 (0.56)	1.16 (0.57)	1.12 (0.44)	1.26 (0.92)
Incompatibility	0.52 (−2.16)**	0.59 (−1.71)*	0.55 (−1.79)*	0.54 (−1.69)*	0.51 (−2.26)**
Cold War	1.43 (1.32)	1.41 (1.26)	1.42 (1.29)	1.42 (1.20)	1.39 (1.23)
Military personnel				1.00 (2.53)**	
Secondary warring party					2.92 (2.27)**
No. obs	910	910	910	873	910
No. subjects	185	185	185	176	185
No. failures	76	76	76	73	76
Log pseudolikelihood	−331.18	−331.58	−331.43	−312.45	−328.99

Hazard ratios reported; a ratio above 1 indicates an increase in the risk of war, while a value below 1 indicates a decreased risk of war. Robust *z*-statistics in parentheses; these are clustered on country; * $p \leq .10$; ** $p \leq .05$; *** $p \leq .01$.

Turning to the composition variables, the results for ethnic pluralism in Model 1 indicate that countries in which greater shares of the population belong to the largest ethnic group (i.e., less pluralistic countries) have a considerably increased risk of war. In Model 2, the ethnic fractionalization is negative and not statistically significant; in Model 3 it is now positive but not significant. The squared measure is negative and not significant.¹⁸ Models 4 and 5 support the results found in Model 1 for ethnic pluralism. In his duration study, Fearon finds that ethnic fractionalization is positive but not significant, while Elbadawi and Sambanis (2000) and Collier, Hoeffler, and Söderbom (2004) find it positively but nonmonotonically associated with war duration. The differing results are perhaps not entirely surprising given the general fragility of ethnic composition variables across model specifications and datasets in not only duration studies, but onset studies as well (Collier and Hoeffler 2004; Ellingsén 2000; Fearon and Laitin 2003; Hegre and Sambanis 2006; Regan and Norton 2005; Sambanis 2001, 2004; de Soysa 2002).¹⁹ It may be the case ethnic composition matters differently for different aspects of armed conflict, and that the effect of ethnic composition

¹⁸ Using an alternate measure for ethnic fractionalization (Alesina et al. 2003) resulted in roughly the same hazard ratio as in Model 2, but was no longer statistically significant; it produced the same results as in Model 3 for the ethnic fractionalization variable and its square. With this alternate specification, ethnic mobilization increased in strength (hazard ratio of 2.19) and was significant at the .01 level.

¹⁹ Fearon and Laitin (2003) find that ethnic fractionalization and other related ethnic composition measures are not statistically significant while Collier and Hoeffler (2004) find that ethnic fractionalization is positive and significant at the .1 level in several models, though related measures of ethnic dominance and polarization are not significant. Ellingsén (2000) finds that the relationship is nonmonotonic and significant; Hegre and Sambanis (2006) support this conclusion in their sensitivity analysis when looking at all armed conflicts, but find that the results do not hold when examining war. de Soysa's (2002) results depend on model specification and do not find consistent support for a nonmonotonic relationship. Sambanis (2001) finds that ethnic heterogeneity is positive and significant for the subset of *ethnic wars* while its squared measure is not; similarly, Regan and Norton (2005) find that it is positively and significantly related to the onset of war when looking at minorities at risk. Key aspects differ across the studies: which armed conflict dataset is used for which time periods, which measure of ethnic composition is used and how it is measured, and how the model is specified. For this reason, it is difficult to reconcile the contrasting results.

diverges depending on whether one is interested in intensification, duration, or onset. At the same time, data issues preclude drawing strong conclusions as even within the study of onset and duration there is no consensus as to the effect of ethnic composition.²⁰

Per capita income was negative while population was positive in all of the models, though neither of these was statistically significant in any of the models. Governance shows mixed results: democracy has a lower risk for war but its statistical significance varies across the models; autocracy is positive but not statistically significant in any of the models.²¹ Finally, the incompatibility variable shows that territorial conflicts experience a lower risk for war than do governmental conflicts; this result is statistically significant at the .1 or .05 level across Models 1–5. Model 4 shows that the military personnel is highly significant but its effect is surprisingly weak: an increase of 1,000 troops leads to only a .01 percent greater risk for war.²² Finally, Model 5 includes the secondary warring party variable, which is statistically significant and shows a strong effect: the risk for war increases by 192 percent if an external state intervenes militarily on the side of the rebels. This result supports the general logic of this article; while ethnic mobilization is one way of increasing the strength of the rebel organization, another means is through obtaining troops and military resources from an external state. This is, however, a rare phenomenon, as states are often reluctant to get militarily involved in civil wars, particularly on the side of the rebel group.²³

It is reasonable to investigate whether there are any regional effects at play. To check for the robustness of the results, I added regional dummies to the model to explore whether they add to the model's explanatory power or whether the model has adequately accounted for the influence of regional characteristics with the general independent variables. The coefficient estimates are not reported here, but none of the regional dummies were significant at the .05 level and a Wald test failed to reject the null hypothesis.²⁴

Extending the Analysis

To investigate whether there is duration dependence (whether from state dependence or unobserved heterogeneity) in the model, I ran tests for the proportionality assumption that is critical to the Cox model. The Schoenfeld residuals show that the residuals are unrelated to survival time; the proportional hazards assumption holds both globally and for each covariate.

I also explored the effect of using various parametric distributions. Running the Model 1 using a Weibull distribution, ethnic mobilization loses strength somewhat (hazard ratio of 1.60) and is significant at only the .1 level. The other variables behave in largely the same manner as in the original model reported in

²⁰ Further complications include the fact that both the unit of analysis and extent to which conflicts are aggregated differ across the different types of studies. Intensification and duration examine only cases of armed conflicts, while onset studies employ country-year as their unit of analysis. Within duration studies, Collier and Hoeffler only allow for a single armed conflict to be ongoing, while Fearon and UCDP allow for multiple simultaneously ongoing conflicts. Fearon, however, chooses to aggregate some conflicts; for example all eight of the territorial and governmental conflicts in Burma included in the UCDP dataset are coded as a single conflict in Fearon's dataset. All of these data issues naturally affect duration times and thresholds.

²¹ I also explore using the Polity2 score rather than the democracy and autocracy dummies. To examine the possibility of a curvilinear relationship, I also include a squared Polity2 measure. The results show that higher values of the Polity scale (i.e., more democratic) reduce the risk for war; this result is significant at the .05 level. The squared Polity2 measure is negative and not statistically significant, suggesting that there is no curvilinear relationship. All other variables produce roughly the same substantive results as reported in Table 1.

²² Two alternate measures of state military strength, military expenditures and composite index of national capability, were also explored; they produce largely the same results. Data for these measures also come from Correlates of War's military capabilities dataset.

²³ There are only nine cases of secondary warring parties supporting the rebels in the dataset.

²⁴ Output from all robustness tests and alternative specifications is available in the online appendix.

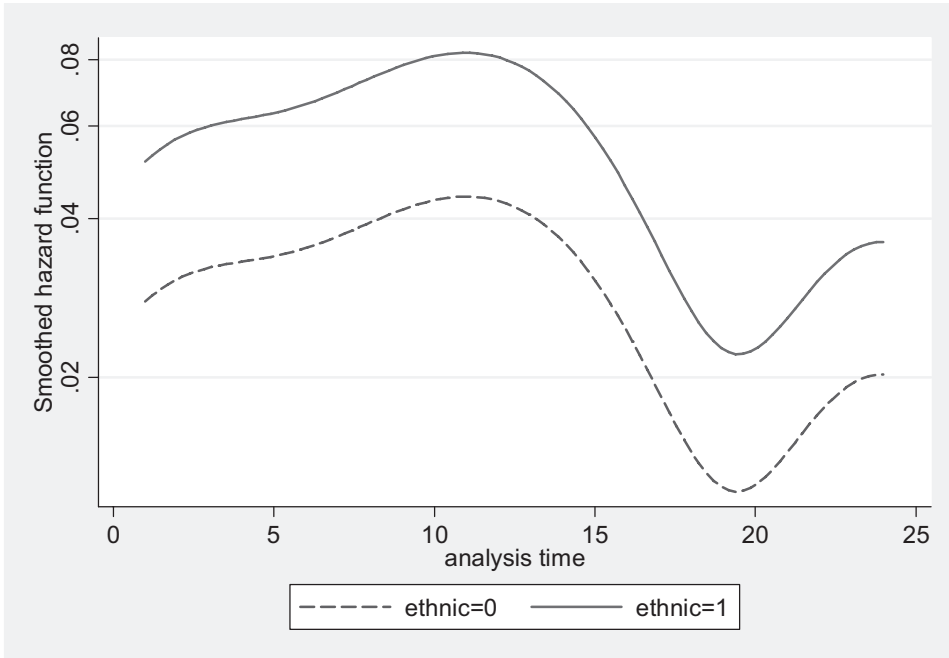


FIG. 1. Cox Proportional Hazards Regression

Table 1. The differences in the results are likely to be due to the fact that parametric models assume a particular distribution regarding the form of the hazard rate; I thus interpret the discrepancy between Cox and the parametric Weibull model as being explained by the fact that the parametric assumptions are a poor fit for the actual form of the data.

Figure 1 shows the hazard function, which is a conditional failure rate that describes the risk of a conflict intensifying to war, *given that the conflict has lasted up until that point*. This is a post-estimation graph that adheres to the covariate patterns and is estimated with the regression from Model 1. The figure shows the estimated hazard for conflicts that see ethnic mobilization versus conflicts with no ethnic mobilization, and a comparison of the curves clearly shows that ethnically mobilized conflicts experience a higher risk for war than nonethnic wars. The hazard rate increases slightly until around the twelfth year after which it decreases dramatically; thus, *given* that a conflict has survived until year 12 it has a slightly higher risk for war than it did in year 11. It is worth noting that there will always be variability in the right-hand tail of a hazard curve as the population is reduced by prior failures and censoring. There are only six conflicts that last more than 20 years, making estimates in the far right-tail fragile; the upward curve after year 20 should therefore be read with extreme caution.

It is easy to misinterpret the hazard curve. It is a conditional risk, so it does not provide information about the absolute number of failures at any given point; it says nothing about when most intensifications occur. Even though the hazard risk is higher at year 10 than at year 1 this does not mean that more conflicts fail in year 10 than in year 1; rather, more conflicts fail relative to the number that have survived up until that point. In fact, in absolute terms, far more conflicts actually intensify to war at year 1, as shown in Table 2.

The vast majority of conflicts fail in the first year: 53 of 88 total failures occur in year 1. A further 46 exit the risk set either because they are censored or

TABLE 2. Intensification Over Time

<i>Years of conflict</i>	<i>Conflicts at risk</i>	<i>Intensify to war</i>	<i>Censored</i>
1	202	53	46
2	103	6	10
3	87	4	16
4	67	1	4
5	62	5	3
6	54	2	7
7	45	3	3
8	39	2	4
9	33	3	5
10	25	2	0
11	23	1	0
12	22	2	0
13	20	1	2
14	17	1	2
15	14	1	3
16	10	0	3

because the conflict ceased to exist (i.e., it ended due to low or no activity, ceasefire, peace agreement, etc.). The number of intensifications decreases over time, as does the number of cases that exit the dataset. After year 16, there is only one intensification recorded. Taken together, the data presented in Figure 1 and Table 2 show a rather complex relationship between intensification and time: in absolute terms, conflicts are more likely to intensify at the outset of conflict rather than later on, but given that a conflict survives, the conditional risk that it will escalate to war continues to increase until year 12, after which it decreases. Note that the results here do not examine what has happened after a conflict has escalated to war, and so tell us nothing about the duration of war itself. Time as it is measured here is time of armed conflict until it becomes war; what happens thereafter is the task for future research to examine.

In the final extension of the analysis, I acknowledge that the concept of conflict intensification—the transition from conflict to war—is itself new. It is therefore useful to compare whether the results hold when instead employing data on other closely related concepts. Conflict severity (Lacina 2006) is particularly relevant as it also concerns levels of violence in armed conflict. Using data from Lacina and Gleditsch (2005), conflict severity is operationalized as the total number of battle-related fatalities over the course of the entire conflict; this is purely cross-sectional data and the conflict is the unit of analysis.²⁵ I run Models 1–4 from Table 1 using OLS (ordinary linear regression) on the log of battle-deaths for the entire conflict period; because the data has no time-series component, I include a duration variable in Models 1–4 which measures the number of years a conflict was ongoing, to control for the effect of time.²⁶ Model 5 omits the duration variable. The results, reported in Table 3, show that ethnic mobilization

²⁵ Lacina (2006) does provide a conflict-year dataset, but the data are far too poor to use for examining the dynamics of armed violence. In it, annual estimates are often generated by creating an annual mean from the aggregate conflict estimates; for example, Lacina estimates 154,000 fatalities for the Greek civil war, 1946–1949 which she has then coded in the conflict-year dataset as 38,500 per year. Most accounts of the Greek civil war, however, suggest that fighting was sporadic in the first year, and that the level of fatalities varied considerably from year to year; it is thus not advisable to use this conflict-year data for hypothesis testing (indeed, Lacina does not use the conflict-year dataset in her regressions).

²⁶ Model 5 from Table 1 is not included as the severity data is purely cross-sectional and has no time-series component; because secondary warring parties often join after the onset of widespread violence, I cannot ensure the causal ordering and to include it may introduce endogeneity into the model. Independent variables are measured the year prior to the onset of conflict and the Cold War variable is a dummy for war which began prior to 1989.

TABLE 3. Severity of Armed Conflict, 1946–2004

	Model 1	Model 2	Model 3	Model 4	Model 5
Ethnic mobilization	0.722 (0.402)*	0.703 (0.406)*	0.683 (0.409)*	0.760 (0.407)*	1.886 (0.481)***
Ethnic pluralism	0.849 (0.757)			0.678 (0.807)	1.706 (0.913)*
Ethnic fractionalization		-0.866 (0.610)	-2.149 (2.730)		
Ethnic fractionalization, sq.			1.408 (3.007)		
GDP per capita	0.004 (0.050)	-0.009 (0.057)	-0.004 (0.060)	0.016 (0.051)	-0.023 (0.056)
Population	0.072 (0.086)	0.111 (0.091)	0.091 (0.105)	0.110 (0.135)	0.213 (0.100)
Democracy	-1.494 (0.368)***	-1.566 (0.350)***	-1.578 (0.357)***	-1.388 (0.375)***	-1.397 (0.417)***
Autocracy	-0.450 (0.367)	-0.494 (0.360)	-0.506 (0.363)	-0.339 (0.382)	-0.072 (0.449)
Incompatibility	0.240 (0.459)	0.105 (0.469)	0.056 (0.451)	0.272 (0.486)	0.506 (0.536)
Cold War	0.309 (0.356)	0.362 (0.360)	0.347 (0.363)	0.418 (0.361)	1.456 (0.410)***
Military personnel				≥0.000 (<0.000)	
Duration	0.150 (0.017)***	0.147 (0.017)***	0.147 (0.018)***	0.148 (0.016)***	
Intercept	4.597 (1.523)***	5.473 (1.508)***	5.936 (1.720)***	4.077 (1.883)***	2.324 (1.869)
R ²	0.485	0.480	0.481	0.496	0.214
No. Obs	152	153	153	146	152

OLS regressions. Robust SE in parentheses; these are clustered on country. * $p \leq .10$; ** $p \leq .05$; *** $p \leq .01$.

remains positive, though it is now significant at the 0.1 level in all four models. Results for the control variables differ somewhat from those in Table 1. Ethnic pluralism continues to have a positive effect, but is no longer statistically significant. Ethnic fractionalization is negative in both Models 2 and 3, and its square is positive, but these results are also not statistically significant. The democracy result remains negative and is statistically significant at the 0.01 level. The sign for autocracy is negative across all five models for conflict severity, while it was positive in all models of conflict intensity (Table 1); it is not statistically significant in any of the models in Tables 1 or 3. Incompatibility also switches signs in the severity models; it was negative and statistically significant for conflict intensity, but is positive and not statistically significant for conflict severity. Finally, the duration variable, not surprisingly, is positive and highly significant. This variable may be capturing not only the effect of time, but also a number of indirect effects from variables that are temporally prior; removing the duration variable in Model 5 results in the ethnic mobilization, ethnic pluralism, and Cold War variables having stronger effects and being statistically significant.

Conclusion

The aim of this article was to address the question of whether ethnically mobilized conflicts are more likely to intensify to war than nonethnically mobilized conflicts. In doing so, this article sought to contribute to the literature on ethnic conflict by providing a systematic test of the claim that ethnic conflicts are more likely to see increased violence, a claim that hitherto has been based solely on anecdotal evidence. I evaluated this proposition using a Cox proportional hazards model on annual, global data for the period 1946–2004. The results showed that conflicts in which the participants mobilize along ethnic lines are 92 percent more likely to escalate to war than are nonethnically mobilized conflicts. These results are robust to different model specifications and variable operationalizations. The statistical results provide clear support for the claim that ethnically mobilized conflicts are more likely to intensify to war. This finding provides systematic evidence for a proposition that has in recent years become almost conventional wisdom, yet for those familiar with the work of Kalyvas and others who are critical of the concept of ethnic conflict, the results reported here may come as somewhat of a surprise.

By observing *when* the armed conflicts intensify to war, the extended analysis sought to connect tangentially to the duration literature. While the vast majority of intensifications occurred in the first year or two, for every year a low-scale conflict remained active thereafter increased the risk it would intensify, peaking around year 12 and dropping dramatically thereafter. These results made it clear that conflict duration and conflict intensification do not necessarily go hand-in-hand; instead, there is a complex relationship between violence and time in internal armed conflicts. These results have a number of policy implications. First, the study suggests that patterns of rebel mobilization may reveal information about the likelihood for intensified violence, and that ethnically mobilized conflicts in particular are at risk. The extended analysis also provided information on the timing of war intensification, suggesting that third parties wishing to prevent an increase in violence should be prepared to act immediately after a conflict breaks out. Over 60 percent of conflicts that intensify to war do so in the first year, suggesting that rapid engagement is necessary and that new conflicts, as well as ongoing wars, should be prioritized.

These results have a number of implications for future research. The first regards the utility of bringing more nuanced distinctions to the discussion of ethnic conflict. On a theoretical as well as empirical level, ethnic mobilization,

ethnic grievances, and ethnic composition are all distinct though related concepts; the same is also true for conflict onset, conflict intensification, conflict duration, and conflict termination. It may very well be the case that some aspects of ethnicity are useful for explaining some aspects of armed conflict, but not useful for explaining others. Ethnic mobilization proved useful in explaining conflict intensification, but it may play a little role in, for example, conflict termination; future research will be the judge. Making these distinctions more explicit should generate more precise theory.

Another avenue for future research is to test the recruitment argument that I put forth. This article argued that ethnic mobilization leads to a higher risk for war because of advantages harnessed in rebel recruitment, but the recruitment mechanism itself was not empirically tested. An alternative to my rational and organizational focus on recruitment would be to instead argue that psychological or emotional processes associated with ethnic mobilization may lead to higher levels of violence; this is the argument often found in primordialist literature that ethnic hatred will drive warring parties to kill more. At present, a lack of data precludes studying the causal mechanism presented here, or comparing it with competing causal stories. Results from other civil war studies, however, do suggest that arguments related to the feasibility of rebellion are quite powerful (Collier, Hoeffler, and Söderbom 2008) and the finding here that military involvement of external parties also has a strong effect on increasing the risk of war supports the general argument. That both ethnic mobilization and secondary warring parties are strongly correlated with a risk for war suggests that the resources available to rebel groups are critical in determining the risk for war. Nonetheless, the causal pathway warrants further research.

Clearly, there is also a need to better understand conflict processes. This article focuses on one stage of conflict that has been largely overlooked, conflict intensification. The entire dynamics of armed conflict—rebel group formation, conflict onset, intensification to war, conflict termination, and the consolidation of peace—can hardly be grasped within the context of a single study. Understanding patterns of violence throughout a conflict poses enormous challenges, though looking at key steps in the process facilitates a better understanding of conflict dynamics. At the same time, the research design employed here cannot answer questions regarding why violence varies temporally and spatially *within* a conflict, and therefore cannot be used to examine many aspects of conflict dynamics. Such aspects are better studied within the context of single case microstudies of violence, if only because the kind of refined data necessary is difficult if not impossible to gather at the global level (Humphreys and Weinstein 2006; Kalyvas 2006).²⁷ This article should thus be seen as a complement to such single case microstudies, particularly as cross-national studies can better address factors that vary at the conflict or country levels, such as ethnic mobilization.

By opening up the “black box” of civil war (Gartner 1998) and examining the processes and patterns of conflict behavior, we can gain a better understanding of the internal dimensions of civil war and how these affect conflict outcomes. It is those conflicts which see high levels of violence that have the greatest consequences not only at a domestic level but also for the international system. High levels of violence are associated with high costs: destruction of infrastructure, declining health, increased refugee flows. Developing better models of conflict intensification and the processes that lead to high levels of violence is a necessity for informing policy that hopes to minimize these costs.

²⁷ Note that in contrast to this article, both of these studies focus on violence against civilians, pointing to the need to also study the dynamics of battle-related violence at the microlevel.

References

- ALESINA, ALBERTO, ARNAUD DEVLEESCHAUWER, WILLIAM EASTERLY, SERGIO KURLAT, AND ROMAIN WACZIARG. 2003. "Fractionalization." *Journal of Economic Growth* 8 (2): 155–194.
- BEN-YEHUDA, HEMDA, AND MEIRAV MISHALI-RAM. 2003. "The Ethnic-State Perspective in International Crises: A Theoretical Framework Applied to the Arab–Israel Conflict 1947–2000." *International Interactions* 29 (1): 1–26.
- BERGSTRÖM, REINHOLD, AND PER-ANDERS EDIN. 1992. "Time Aggregation and the Distributional Shape of Unemployment Duration." *Journal of Applied Economics* 7 (1): 5–30.
- BOX-STEFFENSMEIER, JANET, AND BRADFORD S. JONES. 1997. "Time Is of the Essence: Event History Models in Political Science." *American Journal of Political Science* 41 (4): 1414–1461.
- BOX-STEFFENSMEIER, JANET, AND BRADFORD S. JONES. 2004. *Event History Modeling: A Guide for Social Scientists*. Cambridge: Cambridge University Press.
- BRECHER, MICHAEL, AND JONATHAN WILKENFELD. 1997. *A Study of Crisis*. Ann Arbor, MI: University of Michigan Press.
- BUENO DE MESQUITA, BRUCE, JAMES MORROW, AND ETHAN ZORICK. 1997. "Capabilities, Perception, and Escalation." *American Political Science Review* 91 (1): 15–27.
- CARMENT, DAVID. 1993. "The International Dimensions of Ethnic Conflict: Concepts, Indicators, and Theory." *Journal of Peace Research* 30 (2): 137–150.
- CARMENT, DAVID, AND PATRICK JAMES. 1997. "Ethnic Conflict at the International Level: Theory and Evidence." In *Wars in the Midst of Peace: The International Politics of Ethnic Conflict*, ed. David Carment, and Patrick James. Pittsburgh, PA: University of Pittsburgh Press.
- CASELLI, FRANCESCO, AND WILBUR JOHN COLEMAN II. 2006. "On the Theory of Ethnic Conflict." NBER Working Paper No. 12125.
- CEDERMAN, LARS-ERIK, AND LUC GIRARDIN. 2007. "Beyond Fractionalization: Mapping Ethnicity Onto Nationalist Insurgencies." *American Political Science Review* 101 (1): 173–185.
- CHANDRA, KANCHAN. 2006. "What Is Ethnic Identity and Does It Matter?" *American Review of Political Science* 9: 397–424.
- COLLIER, PAUL, AND ANKE HOEFFLER. 2002. "Greed and Grievance in Civil War." CSAE Working Paper, WPS 2002-01, Oxford University.
- COLLIER, PAUL, AND ANKE HOEFFLER. 2004. "Greed and Grievance in Civil War." *Oxford Economic Papers* 56 (4): 563–595.
- COLLIER, PAUL, ANKE HOEFFLER, AND MÅNS SÖDERBOM. 2004. "On the Duration of Civil War." *Journal of Peace Research* 41 (3): 253–273.
- COLLIER, PAUL, ANKE HOEFFLER, AND MÅNS SÖDERBOM. 2008. "Post-Conflict Risks." *Journal of Peace Research* 45 (4): 461–478.
- COX, D. R. 1972. "Regression Models and Life-Tables." *Journal of the Royal Statistical Society, Series B (Methodological)* 34 (2): 187–220.
- EBERWEIN, WOLF-DIETER. 1981. "The Quantitative Study of International Conflict: Quantity and Quality? An Assessment of Empirical Research." *Journal of Peace Research* 18 (1): 19–38.
- EFRON, BRADLEY. 1977. "The Efficiency of Cox's Likelihood Function for Censored Data." *Journal of the American Statistical Association* 72: 557–565.
- ELBADAWI, IBRAHIM, AND NICHOLAS SAMBANIS. 2000. "External Interventions and the Duration of Civil Wars." World Bank Policy Research Working Paper No. 2433, September.
- ELLINGSEN, TANJA. 2000. "Colorful Community or Ethnic Witches' Brew? Multiethnicity and Domestic Conflict During and After the Cold War." *Journal of Conflict Resolution* 44 (2): 228–249.
- FEARON, JAMES D. 1994. "Domestic Political Audiences and the Escalation of International Disputes." *American Political Science Review* 88 (3): 577–599.
- FEARON, JAMES D. 2004. "Why Do Some Civil Wars Last So Much Longer Than Others?" *Journal of Peace Research* 41 (3): 275–301.
- FEARON, JAMES D., AND DAVID D. LAITIN. 1996. "Explaining Interethnic Cooperation." *American Political Science Review* 90 (4): 715–735.
- FEARON, JAMES D., AND DAVID D. LAITIN. 2003. "Ethnicity, Insurgency, and Civil War." *American Political Science Review* 97 (1): 75–90.
- GARTNER, SCOTT SIGMUND. 1998. "Opening up the Black Box of War." *Journal of Conflict Resolution* 42 (3): 252–258.
- GATES, SCOTT. 2002. "Recruitment and Allegiance: The Microfoundations of Rebellion." *Journal of Conflict Resolution* 46 (1): 111–130.

- GATES, SCOTT, AND HÅVARD STRAND. 2004. "Modeling the Duration of Civil Wars: Measurement and Estimation Issues." Paper presented at the Meeting of the Standing Group on International Relations, the Hague, Netherlands.
- GILLEY, BRUCE. 2004. "Against the Concept of Ethnic Conflict." *Third World Quarterly* 25 (6): 1155–1166.
- GLEDITSCH, KRISTIAN SKREDE. 2002. "Expanded Trade and GDP Data." *Journal of Conflict Resolution* 46 (5): 712–724.
- GLEDITSCH, KRISTIAN SKREDE. 2007. "Transnational Dimensions of Civil War." *Journal of Peace Research* 44 (3): 293–309.
- GLEDITSCH, NILS PETTER, PETER WALLENSTEEN, MIKAEL ERIKSSON, MARGARETA SOLLENBERG, AND HÅVARD STRAND. 2002. "Armed Conflict 1946–2001: A New Dataset." *Journal of Peace Research* 39 (5): 615–637.
- GURR, TED ROBERT. 2000. *People Versus States: Minorities at Risk in the New Century*. Washington, D.C.: United States Institute of Peace Press.
- HARBOM, LOTTA, ERIK MELANDER, AND PETER WALLENSTEEN. 2008. "Dyadic Dimensions of Armed Conflict, 1946–2007." *Journal of Peace Research* 45 (5): 697–710.
- HARDIN, RUSSELL. 1995. *One for All: The Logic of Group Conflict*. Princeton, NJ: Princeton University Press.
- HEGRE, HÅVARD, AND NICHOLAS SAMBANIS. 2006. "Sensitivity Analysis of Empirical Results on Civil War Onset." *Journal of Conflict Resolution* 50 (4): 508–535.
- HOROWITZ, DONALD L. 1985. *Ethnic Groups in Conflict*. Berkeley, CA: University of California Press.
- HUMPHREYS, MACARTAN, AND JEREMY M. WEINSTEIN. 2006. "Handling and Manhandling Civilians in Civil War." *American Political Science Review* 100 (3): 429–447.
- JERVIS, ROBERT. 1976. *Perception and Misperception in International Relations*. Princeton, NJ: Princeton University Press.
- JERVIS, ROBERT. 1978. "Cooperation Under the Security Dilemma." *World Politics* 30 (2): 167–214.
- KALYVAS, STATHIS N. 2001. "'New' and 'Old' Civil Wars: A Valid Distinction?" *World Politics* 54 (1): 99–118.
- KALYVAS, STATHIS N. 2006. *The Logic of Violence in Civil War*. Cambridge: Cambridge University Press.
- KALYVAS, STATHIS N., AND MATTHEW ADAM KOCHER. 2007. "Ethnic Cleavages and Irregular War: Iraq and Vietnam." *Politics and Society* 35 (2): 183–223.
- KAUFMAN, STUART. 1996. "An 'International' Theory of Inter-Ethnic War." *Review of International Studies* 22 (2): 149–171.
- KAUFMANN, CHAIM. 1996. "Possible and Impossible Solutions to Ethnic Civil Wars." *International Security* 20 (4): 136–175.
- KING, CHARLES. 2001. "The Myth of Ethnic Warfare: Understanding Conflict in the Post-Cold War World." *Foreign Affairs* 80 (6): 165–170.
- KREUTZ, JOAKIM. 2006. "Once Again: A New Test of Recurring Intrastate Conflicts, 1946–2001." Paper presented at the 47th International Studies Association Convention, San Diego, CA.
- KREUTZ, JOAKIM. Forthcoming 2010. "How and When Conflicts End: Introducing the UCDP Conflict Termination Dataset." *Journal of Peace Research* 47 (2).
- LACINA, BETHANY. 2006. "Explaining the Severity of Civil Wars." *Journal of Conflict Resolution* 50 (2): 276–289.
- LACINA, BETHANY, AND NILS PETTER GLEDITSCH. 2005. "Monitoring Trends in Global Combat: A New Dataset of Battle Deaths." *European Journal of Population* 21 (2–3): 145–166.
- LICHBACH, MARK IRVING. 1995. *The Rebel's Dilemma*. Ann Arbor, MI: University of Michigan Press.
- LIN, D. Y., AND L. J. WEI. 1989. "The Robust Inference for the Proportional Hazards Model." *Journal of the American Statistical Association* 84 (408): 1074–1078.
- LINDSTRÖM, RONNY, AND WILL H. MOORE. 1995. "Depraved, Rational or Both? 'Why Minorities Rebel' Revisited." *Journal of Political and Military Sociology* 23: 167–190.
- MARSHALL, MONTY, AND KEITH JAGGERS. 2002. Polity IV. Available at <http://www.cidcm.umd.edu/inscr/polity/> (Accessed March 15, 2005).
- MELANDER, ERIK. 1999. *Anarchy Within: The Security Dilemma Between Ethnic Groups in Emerging Anarchy*. Uppsala University, Uppsala: Department of Peace and Conflict Research.
- MORGAN, CLIFTON. 1994. *Untying the Knot of War*. Ann Arbor, MI: Michigan University Press.
- MUELLER, JOHN. 2000. "The Banality of 'Ethnic Warfare'." *International Security* 25 (1): 42–70.
- ÖBERG, MAGNUS. 2002. *The Onset of Ethnic War as a Bargaining Process: Testing a Costly Signaling Model*. Uppsala: Universitetsstryckeriet.
- OLSON, MANCUR. 1971. *The Logic of Collective Action*. Cambridge, MA: Harvard University Press.
- PEARCE, SUSANNA. 2005. "Religious Rage: A Quantitative Analysis of the Intensity of Religious Conflicts." *Terrorism and Political Violence* 17 (3): 333–352.

- POSEN, BARRY R. 1993. "The Security Dilemma and Ethnic Conflict." *Survival* 35 (1): 27–47.
- PRUITT, DEAN G., AND SUNG HEE KIM. 2004. *Social Conflict: Escalation, Stalemate, and Settlement*, 3rd edition. Boston, MA: McGraw Hill.
- REED, WILLIAM. 2000. "A Unified Statistical Model of Conflict Onset and Escalation." *American Journal of Political Science* 44 (1): 84–93.
- REGAN, PATRICK M., AND DANIEL NORTON. 2005. "Greed, Grievance, and Mobilization in Civil Wars." *Journal of Conflict Resolution* 49 (3): 319–336.
- REYNAL-QUEROL, MARTA. 2002. "Ethnicity, Political Systems, and Civil Wars." *Journal of Conflict Resolution* 46 (1): 29–54.
- SAMBANIS, NICHOLAS. 2001. "Do Ethnic and Nonethnic Civil Wars Have the Same Causes?" *Journal of Conflict Resolution* 45 (3): 259–282.
- SAMBANIS, NICHOLAS. 2004. "What Is Civil War? Conceptual and Empirical Complexities of an Operational Definition." *Journal of Conflict Resolution* 48 (6): 814–858.
- SAMBANIS, NICHOLAS, AND ANNALISA ZINN. 2005. "From Protest to Violence: An Analysis of Conflict Escalation With an Application to Self-Determination Movements." Unpublished manuscript, Yale University.
- SCARRITT, JAMES R., AND SUSAN MCMILLAN. 1995. "Protest and Rebellion in Africa: Explaining Conflicts Between Ethnic Minorities and the State in the 1980s." *Comparative Political Studies* 28 (3): 323–349.
- SENESE, PAUL. 1997. "Between Dispute and War: The Effect of Joint Democracy on Interstate Conflict Escalation." *Journal of Politics* 59 (1): 1–27.
- SINGER, J. DAVID, STUART BREMER, AND JOHN STUCKEY. 1972. "Capability Distribution, Uncertainty, and Major Power War, 1820–1965." In *Peace, War, and Numbers*, ed. Bruce Russett. Beverly Hills: Sage.
- DE SOYSA, INDRA. 2002. "Paradise Is a Bazaar? Greed, Creed, and Governance in Civil War, 1989–1999." *Journal of Peace Research* 39 (4): 395–416.
- UCDP. 2008. "Definitions." Uppsala Conflict Data Project. Available at <http://www.pcr.uu.se/research/UCDP>. (Accessed June 4, 2008).
- VÄYRYNEN, RAIMO. 1994. "Towards a Theory of Ethnic Conflicts and Their Resolutions." Occasional Paper No. 6. Joan B. Kroc Institute for International Peace Studies, Notre Dame University.
- WEINSTEIN, JEREMY. 2007. *Inside Rebellion: The Politics of Insurgent Violence*. Cambridge: Cambridge University Press.