The Language of the Unheard? Ethno-Political Exclusion and Ethnic Riots in Africa

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Abstract:

Ethnic riots are sporadic and localized incidents of low-intensity violence, with civilians from one ethnic group engaging in vicious attacks on a rival ethnic group. While systematic research on ethnic violence has almost exclusively focused on organized armed conflict, comparably little quantitative research has considered the causes of low-intensity ethnic violence. Building on existing case-based research on inequality and ethnic riots, this article argues that ethnic rioting can be explained by collective motivations for group violence that emerge from highly unequal local ethno-political configurations; where politically dominant groups coexist with groups that are discriminated or have recently lost political power. To test this argument, the article deploys a spatially disaggregated analysis of all African states between 1990 and 2008, combining new dyadic data capturing the location of ethnic riots with disaggregated grid-level data on ethno-political representation. I find ethnic riots are more likely to occur in discriminated group areas, in locations where a group has recently lost political representation and where such groups live in close proximity of politically dominant groups.
Introduction

In 2001, in the Nigerian city of Jos, a confrontation at a mosque between a Muslim security guard and a Christian woman quickly descended into seven days of inter-ethnic clashes, the burning of 12 religious buildings and over a 1000 deaths (Scacco 2010). This form of low-intensity ethnic violence or ‘ethnic riots’ are sporadic and loosely organized, involving non-militarized violence that is perpetrated by civilians against members of the “other” and associated property (Horowitz 2003; Varshney 2002; Wilkinson 2004; Balcells, Daniels and Escriba-Folch 2017). While ethnic riots can involve non-lethal violence, they are often deadly. Between 1990 and 2008 at least 268 ethnic riots occurred across Africa in urbanized areas where ethnicity is particularly politicalized and salient, resulting in more than 43,000 deaths.

Yet ethnic rioting are not unique to Nigeria, and vary considerably both across and within African countries. While the Nigerian city Jos saw seven days of Christians-Muslims rioting in 2001, nearby towns and cities reported no ethnic violence. Why do some areas, such as Jos witness ethnic rioting, while surrounding locations remain peaceful? The purpose of this article is to explore whether there is an empirical link between political cleavages and the location of ethnic rioting, offering the first cross-national and subnational analysis of ethnic riots across Africa.

1 Ethnic riots involve mass numbers of civilians, but differ from other community violence such as localized gang violence, neighbourhood brawls, and everyday social violence (Horowitz 2003; Brass 2003; Scacco 2010).
2 Moreover, Wilkinson (2004) find 93% of Hindu-Muslim riots in India between occurred in urban areas between 1950 and 1995.
3 There are numerous more recent ethnic riots. Ethnic rioting has occurred in post-Arab spring Egypt in violence between Coptic Christians and Arab Muslims, most recently in Minya province. Similar violence has been witnessed in Kidal, northern Mali, between Tuareg and Songhai amid the Tuareg armed rebellion. In South Africa, ethnic rioting and the torching of white businesses occurred in Coligny in 2017 after two white farmers, accused of murdering a 16-year-old black boy, were granted bail. Despite the efforts of Ethiopia’s new reformist Prime Minister Abiy Ahmed, ethnic violence has rocked the country. In 2018, in Burayo, Oromo youths killed dozens of people and targeted businesses of other ethnic groups in three days of rioting. Ethnic rioting has also recently occurred outside of Africa. In 2010, ethnic rioting between Kyrgyz and Uzbeks led to hundreds of deaths in the southern Kyrgyzstani cities of Osh and Jalal-Abad. Finally, Muslims were targeted in rioting by Sinhalese Buddhist nationalists in riots before and after the 2019 Easter bombings by a radical Islamist group.
Existing quantitative research has revealed much about how ethnicity relates to conflict. An influential perspective points strongly to political inequalities between ethnic groups as a strong predictor of ethnic violence (i.e. Stewart 2008; Østby 2008; Cederman, Gleditsch and Buhaug 2013). Yet, while exiting quantitative studies have focused on ethnic-based civil war (i.e. Østby 2008; Cederman, Gleditsch and Buhaug 2013), case-study research suggests that ethno-political inequalities may cause various forms of ethnic violence, from rioting to civil war (Gurr 1993; Stewart 2002; Stewart 2008). To date, quantitative studies have principally focused on highly organized and militarized forms of ethnic conflict, relying on cross-country datasets that only capture battlefield deaths. As a consequence, quantitative evidence has been limited to the study of civil war (i.e. Cederman, Gleditsch and Buhaug 2013), inter-rebel violence (Bakke et al. 2012; Fjelde and Nilsson 2012; Sundberg, Eck, and Kreutz 2012) and violence between armed communal militias often fighting over cattle and land (Fjelde and Von Uexkull 2012; Butler and Gates 2012; Eck 2014; Fjelde and Østby 2014; Raleigh 2014). It remains unclear what theoretical explanations can account for ethnic rioting across a broad set of cases.4

Building on this existing literature, I argue distinct and unequal ethno-political configurations can explain the variation of ethnic rioting; where politically dominant groups coexist with groups that are discriminated or have recently lost political power. This draws on Horowitz’s (2003) logic of invidious comparison, whereby extreme ethnic antagonisms create the necessary intergroup tension and hatred for provocative events to escalate into ethnic rioting. Invidious comparisons are more likely to emerge in these unequal ethno-political configurations as they raise the stakes in intergroup competition over relative access to jobs and access to public provisions, generating zero-sum and high perceptions of threat. These

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4 Existing quantitative studies on ethnic riots have focused on case-studies in India, Indonesia, Nigeria and Northern Ireland (Varshney 2002; Brass 2003; Horowitz 2003; Wilkinson 2004; Scacco 2010; Tajima 2014; Toha 2015; Balcells et al. 2016)
ethno-political contexts produce sufficient group *motivations* to engage in violence, in areas where the *proximity* of antagonistic groups allows for such violence to occur.

Using newly available events data on Africa, I assess these propositions at the geographical grid-level using a new dyadic measure of ethnic riots across subnational locations of 47 African countries. Africa not only experiences relatively high amounts of ethnic rioting but also encompasses a post-colonial history; ethnic based politics and ethnic struggles that often characterize ethnic violence (Horowitz 2003; Wilkinson 2004; Tajima 2014; Toha 2017). Within such diverse and often democratizing states, ethnic groups can be seen as a convenient and identifiable source of political support (Wimmer 2013), creating incentives for those in power to sponsor and channel state resources to their own ethnic support base, thereby generating ethnic-political competition and unequal political distributions that may explain where ethnic rioting occurs.

The results are consistent with these theoretical expectations; the location of ethnic riots are more likely in areas with distinct ethno-political inequalities, in locations where a group experiences a loss in political power and where such groups coexist with politically dominant groups. These findings make a significant contribution to the case-based literature on ethnic riots by exploring this phenomena across a broader set of cases while highlighting the importance of ethno-political disparities. Moreover, this article also makes notable contribution to the quantitative literature on inequality and ethnic violence, which has been preoccupied with armed violence (i.e. Cederman, Gleditsch and Buhaug 2013; Fjelde and Østby 2014; Raleigh 2014) and to literature on micro-level conflict, by connecting macro-level causes of conflict to micro-level patterns of violence (Balcells and Justino 2014). Ethnic rioting has important broader security implications: generating human displacement (Harris 2018), hardening social boundaries (Gutierrez 2014; Gupte, Justino and Tranchant 2014) and hold the potential to escalate into armed conflict (Reno 2011).
Existing Literature on why Ethnic Riots occur

For most explanations of ethnic rioting, the importance of ethnic politics is a defining feature. Within ethnically diverse and often democratizing states, ethno-political representation provides ethnic groups with access to public provisions such as: improved sanitary systems, healthcare, land, jobs and to gain security provisions such as co-ethnic police. Constituents perceive that co-ethnic leaders are more reliable in channelling state resources than leaders are of other groups (Posner 2005; Bangura 2006; Habyriamana et al. 2009; Berenschot 2011; Fourchard 2012). This is reflected by literature on party competition in Africa, where co-ethnics are found to largely vote along ethnic lines (Posner 2005; Kitschelt and Wilkinson 2007; Lindberg and Morrison 2013; Kramon and Posner 2013). Essentially, ethnic groups are an important political agent within the context of ethnic politics, which provides the basis for zero-sum politics and intergroup competition, which can lead to violence.

Within this context of ethnic politics, several influential case studies argue that ethnic rioting occurs as a result of elite behaviour and highlights two contexts in which elites incite violence; during elections, where elites aim to strengthen co-ethnic support or alter the ethnic composition of the electorate (Brass 2003; Wilkinson 2004; Berenschot 2011; Throup and Hornsby 1998; Harris 2012), and during political transitions, where elites politicize ethnicity in order to capitalize on ethnic support within a new democratizing environment (van Klinken 2007; Bertand 2008; Tajima 2014; Toha 2017). Strong civic ties can help to counter elite manipulation and tension, explaining why some areas remain peaceful (Varshney 2002). Yet, while this literature has focused on high-profile cases of India, Indonesia and Kenya where there was clear elite collusion, there is often very little evidence of elite involvement in other contexts. For instance, in Jos, ethnic politics in the region discouraged elites from inciting and
manipulating violence (Scacco 2010: 6). This literature also largely ignores the variations in ethnic cleavages. It is likely that unequal cleavages must be present for elites to instigate violence in the first place in contexts that undermine civic attempts to contain violence (Barsalou 2003).

An alternative literature points to the close ‘proximity’ of segregated ethnic groups and contested access to resources (Olzak, Shanahan, and McEneaney 1996; Bhavnani et al. 2014; Balcells, Daniels and Escriba-Folch 2016). This draws on the logic of the ‘security dilemma’ where ethnic groups engage in violence due to a collective fear of the future, which is principally related to competition over contested space and resources (Posen 1993). Yet ethnic diversity and proximity alone cannot explain the outbreak of ethnic rioting. Even in contexts of mistrust and where violence is common, the vast majority of diverse areas do not witness violence between proximate groups (Horowitz 2003). This body of literature also fails to account for variations in ethnic cleavages, which may explain why coexistence leads to invidious comparisons and violence in some contexts, but not others.

A third and broad literature on grievances suggests that relative ethno-political inequalities between groups can explain why violence occurs. Much of this literature synthesizes ethnic violence into a two-stage model where: inequalities generate ethnic grievances among politically excluded groups, which in turn, facilitates the occurrence of violence through ethnic networks, collective emotions and institutional incentives to overcome the inequalities (Stewart 2008; Wimmer, Cederman, and Min 2009; Cederman, Gleditsch and Buhaug 2013). While quantitative literature has almost exclusively focused on civil war, such cleavages are likely to form the basis for invidious comparisons that are conducive for ethnic rioting, since this theory was originally developed to explain a range of conflict outcomes (Gurr

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5 Similarly, other studies have found little evidence of elite involvement in ethnic rioting (Olzak, Shanahan and McEneaney 1996; Balcells, Daniels and Escriba-Folch 2016).
Yet little quantitative evidence currently exists for this proposition. Firstly, existing studies on inequality and low-intensity violence are based on case-based evidence that has produced inconsistent results. Secondly, it cannot be assumed that ethnic rioting are a simple substitute of militarized armed violence, since ethnic riots do not occur in the same geographical locations as armed conflict (Horowitz 2003; Balcells, Daniels and Escriba-Folch 2017).

In the absence of cross-national evidence it remains unclear under what contexts ethnic rioting emerges as a result of ethno-political inequalities. The next section argues that specific configurations of ethno-political inequalities are central to explaining where ethnic rioting occurs and I generate plausible hypotheses to test this claim.

**Ethno-Political Inequalities and Ethnic Riots**

I argue that the variation in ethnic rioting can be explained by two distinct ethno-political configurations; where politically dominant groups coexist with discriminated groups or have recently lost political power. In these contexts extreme ethnic antagonisms create the necessary tension and hatred between groups for provocative events to escalate into ethnic rioting. This is built on a two-stage mechanism. First, more profound inequalities (discrimination and changes in power) increase the salience of ethnicity, cohesion of ethnic networks that facilitates sporadic group mobilization. Second, both ethno-political configurations increase insecurities and raise the political stakes in ethnic based struggles, which in turn, increase the likelihood of reactive and sporadic violence between proximate groups, in response to provocative events.

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6 While some studies point to inequalities as a contributing factor to low-intensity violence in Nigeria (Ukiwo 2008), the Ivory Coast, Tanzania (Basedau, Vullers, and Korner 2013), Indonesia (Tadjoeddin and Murshed 2007) and the United States (Olzak, Shanahan, and McEneaney 1996), others find little evidence (Scacco 2010; Østby et al. 2011).
Collective ethnic grievances often derive from intergroup comparisons and frustrations over perceived relative disparities between ethnic groups (Gurr 1993; Stewart 2008; Wimmer, Cederman, and Min 2009).7 The nature of ethnic politics makes political representation in government and unequal access to power particularly salient. Yet this has been largely neglected in existing accounts of ethnic rioting. While politically advantaged groups enjoy material advantages (state resources, patronage networks, public sector employment and land rights) and political advantages (favourable policies, legal security and political relevance), politically disadvantaged groups have incentives to challenge this status quo in order to overcome political and material disadvantages (Tilly 1999; Wimmer 2013).

Such ‘us’ and ‘them’ comparisons of unequal access can generate zero-sum contestation, antagonist outgroup behaviour and bread ethnic tensions, particularly when jobs and state resources are scarce (Gurr 1993; Olzak, Shanahan, and McEneaney 1996). Intergroup comparisons lead members of disadvantaged groups to resent and blame dominant ethnic groups for unfair access and leads members to justify the use of violence (Tilly 1999; Gurr 1993; Petersen 2002; Stewart 2008; Wimmer 2013). Existing studies argue that such grievances and resentment can provide motivations for groups to engage in collective violence and/or for elites to incite violence for political gain. In sum, relative access to power matters.

Yet, while ethno-political inequalities are common in most post-colonial countries, this very rarely triggers sporadic ethnic rioting. Here I draw on Horowitz’s (2003) logic of invidious comparison, whereby intergroup comparisons further develop into extreme hostilities, hatred and perceptions of threat between polarized groups that are necessary for violence to occur. Ethnic riots are highly emotive and sporadic, triggered by provocative and precipitative events.

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7 Ethnicity becomes a key source of group member identity, and through self-identification, feelings of deprivation become associated with collective ethnic identity and ethno-centralism. When a group has a lower status, individual identity is diminished (Tajfel 1981).
which would otherwise be trivial in less polarized contexts (Horowitz 2003). Ethnic riots can be triggered by incidents such as interethnic neighbourhood or vicious rumours about the “other” (Horowitz 2003; Scacco 2010), and by more broader changes in the political landscape, such as political transitions (van Klinken 2007; Tajima 2014; Toha 2017). Within such confrontational contexts, fear and confrontation can quickly break down barriers to the use of violence and escalate into vicious, emotive and reactive violence (Collins 2009: 94; Scacco 2010).

Building on this logic, I argue invidious comparisons are more likely to emerge within distinct and unequal ethno-political configurations, where greater political inequalities and changes in power, provide the necessary ethnic tensions and perceived threat for provocative incidents to escalate into violence between proximate groups. Within the context of ethnic politics, these distinct forms of inequality significantly raise the stakes in intergroup competition over access to public provisions and generate perceptions of threat, mistrust and high social distance. Both harden social boundaries between groups and provide motivations that can translate geographical proximity of groups into violence.

This argumentation closely resembles the sociological work of Jasper (1998), who distinguishes between two types of emotions that provoke violence; affective emotions, based on strong common identity and collective grievances, and reactive emotions, which provokes violence in response to provocative incidents or information. As suggested by Horowitz, both types of emotions should be heightened within tense ethno-political environments.

Invidious comparisons promotes strong affective emotions that harden ethnic identities and boundaries. In many ethno-politically exclusive societies, ethnic identity forms the basis for membership in social networks, which within the context of highly unequal ethno-political configurations tend to be more socially ‘closed’ (Wimmer 2013). This limits intergroup
interaction and ties, and while undermining social cohesion, generates stronger ingroup ties and cohesive ethnic networks that connect group members and help to pull co-ethnic individuals into collective political violence (Scacco 2010; McDoom 2013; McDoom 2014). Through strong affective group emotions, ethnic networks become channels of peer pressure, based on group norms, whereby members have an obligation to act in perceived notions of neighbourhood defence and out of fear of being attacked by the ‘other’ (Scacco 2010; McDoom 2013; Jasso and Opp 1997). In sum, strong affective emotions facilitate potential mobilization, by pulling group members into sporadic violence in response to provocative events.

While cohesive ethnic identity and strong affective emotions provide a basis for sporadic mobilization, reactive emotions translate provocative incidents into violence based on perceived notions of heightened threat (Horowitz 2003). Existing literature suggests this is jointly determined by the unequal access to power (and patronage) and the proximity of politically disadvantaged and dominant groups. A growing literature points to a spatial relationship between this proximity and violence in flashpoint areas (Horowitz 2003), shared spaces (Cunningham and Weidmann 2010) or interface areas (Cunningham and Gregory 2014; Balcells, Daniels and Escriba-Folch 2016). Areas of highly unequal ethno-political configurations become arenas for disputed spaces and intergroup violence.

Close proximity can further reduce trust and generate fear, increasing social distance and segregation between groups. In turn, low levels of contact reduce the likelihood of positive interactions and increases negative perceptions of the “other”, further entrenching perceived differences, prejudice and hatred (Lichbach 1995; Olzak, Shanahan, and McEneaney 1996; Forbes 1997; Calame and Charlesworth 2012; Weidmann and Salehyan 2013; Kasara 2017). This intensifies group competition by increasing the stakes and zero-sum competition over access to the distribution of local goods and public services (Olzak, Shanahan, and McEneaney 1996; Field et al. 2008; Cunningham and Weidmann 2010), providing opportunities for
sporadic intergroup violence to occur between proximate groups (Balcells, Daniels and Escriba-Folch 2016).

Heightened perceptions of threat can generate security dilemmas that also foster *reactive emotions*, as disadvantaged groups are left fearful of violence and marginalisation from proximate and dominant rival groups (Posen 1993). In shared spaces, violence often occurs in the context of poor state security provisions, in which police forces and other security forces, while often neutral in disputes, lack the capacity to intervene in largescale rioting (Varshney 2002; Horowitz 2003; Scacco 2010). The lack of police capacity increases the likelihood group members will be pulled into pre-emptive violence in anticipation of attacks from the ‘other’ and in perceived heroic acts of self-defense in protection of their community (Scacco 2010). The knowledge of poor police capacity also lowers the risk of engaging in ethnic rioting, in which Horowitz (2003) calls a low risk enterprise, as group members are aware of existing police failures to effectively respond to routine crime prior to outbreaks of violence. This fear of the ‘other’ enhances hostility towards the politically included groups (Tilly 1999; Horowitz 1985; Gurr 1993; Petersen 2002; Horowitz 2003), increases the likelihood of reactive violence in distinct ethno-political contexts.

Empirically, this argument has two main implications; ethnic rioting, as a result of reactive emotions to an precipitating event, should occur in areas with highly unequal political configurations where groups live in close proximity. Below I propose plausible hypotheses concerning two ethno-political contexts in which ethnic riots are likely to emerge: areas of political inequalities, where groups are ethno-politically discriminated and coexist with politically dominant groups, and areas experiencing changes in power, where groups have lost political power (downgraded) co-reside with politically dominant groups.
Ethno-Political Discrimination and Ethnic Riots

Ethno-political discrimination strongly facilitates affective emotions as it is the most restrictive type of political exclusion. While other groups may enjoy some representation at the regional level and powerless groups may have token access to patronage, discrimination by definition involves a systematic attempt to prevent a group from gaining representation. This systematic exclusion blocks group access to state resources and security provisions. Such provisions are fundamental to everyday life, provoking strong emotive affective emotions, based on common identity, collective grievances and resentment and fear of dominant groups (Wimmer 2013). For their part, dominant groups have everything to lose and therefore are also likely to hold strong affective emotions about their own identity, built on strong incentives to maintain their status and uphold material and political advantages, which remain a strong threat to discriminated groups (Gurr 1993; Stewart 2008; Horowitz 2003). In essence, purposeful and systematic ethno-political discrimination, rather than general political exclusion per say, should be associated with reactive violence.

In heterogeneous areas containing both discriminated and dominant groups, interethnic tensions should be at their highest; with one group controlling policy and distribution of local resources and the other systematically removed from the process and facing local social exclusion (Østby 2016). Here, stronger affective emotions increase the negative perceptions and mistrust between coexisting groups, and render intergroup comparisons as more visible (Horowitz 2003; Petersen 2002; Claassen 2016). This increases the salience of competition over patronage and material resources likelihood of hostile interactions (Horowitz 1985, 2003; Østby 2016). Anger, resentment and hostility is accumulated over time, generating reactive emotions, which at any point can escalate into reactive violence in response to normally trivial, but nevertheless provocative incidents that strike at the heart of ethnic grievances (Horowitz 2003; Claassen 2016). For example, the ethnic rioting that suddenly erupted in Jos, Nigeria,
occurred after a routine argument between a Muslim and Christian, but within a context of high levels of tensions and fear between both groups (Scacco 2010).

Political discrimination restricts institutional and peaceful avenues for political change, so violence becomes a viable alternative strategy for political change. Violence in shared spaces is aimed at controlling contested territories in the defence of group interests (Stewart 2008), in an attempt to gain access to unequally distributed local resources (Olzak, Shanahan, and McEneaney 1996) and in the interest of enhancing individual and collective security (Scacco 2010; Balcells, Daniels and Escriba-Folch 2016). For example, during Kenya’s 2007 election, the violence largely involved the Luo, who had lacked political power and access to public services and land since the end of 2005, and the Kikuyu, who had won the election and occurred within a context of insecurity and weak policing (Field et al. 2008; Kasara 2017). Drawing on conventional case literature that underpins this discussion derives the following hypotheses. These hypotheses are not necessarily obvious in the absence of cross-country empirical evidence, as it is plausible that political discrimination could have no impact on ethnic riots:

H1a: Ethnic riots are more likely to occur in areas where groups are explicitly discriminated against in obtaining political representation.

H1b: The risk of ethnic riots should increase where politically discriminated groups neighbour or coexist with a politically dominant group.

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8 Nonviolent protest rarely occurs in ethno-politically excluded areas. The strategic logic of nonviolent resistance is to mobilize mass numbers of people, which achieves leverage through withdrawing mass support from elites. Yet political exclusion and divisions between groups prevents activists from attracting mass and broader support that provide such leverage (Thurber 2018).
Ethno-Political Changes in Power and Ethnic Riots

While ethno-political discrimination provides a context whereby provocative incidents can provoke violence against dominant groups at any point, changes in power embody a moment in time in which ethno-political inequalities can transcend into ethnic rioting. Various studies view ethnic rioting as a consequence of major political change, brought about by political transitions and elections. Studies on Indonesia argue ethnic riots are a result of democratization, which provides uncertainties about the future political landscape and generates security dilemmas. Here elites have incentives to politicize and incite ethnic tensions in order to gain ethnic support and capitalize on the political vacuum left by a departing authoritarian regime (Bertand 2008; Tajima 2014; Toha 2017). Various studies have shown electoral violence is more common within ethno-political environments (Brass 2003; Wilkinson 2004 Berenschot 2011; Harris 2012; Klaus and Mitchell 2015), particularly in states with majoritarian electoral systems, where winners-take-all amid dangerous zero-sum ethnic competition (Fjelde and Höglund 2016). One-third of African elections have resulted in some form of violence (Salehyan and Linebarger 2015), which can include incidents of ethnic rioting.

The importance of ethno-political inequalities alerts us to the potential consequences of changes in ethno-political power (Wimmer, Cederman, and Min 2009). The most detrimental form of political change is downgrading, where a group experiences a loss of political representation, and is most threatening when a rival group gains political power. Regardless of whether political downgrading comes in the form of elections, coups, or transitions, changes in ethno-political power is generally threatening due to the high stakes involved within a context of unequal access to resources. Redrawing on the importance of proximity, I argue the risk of ethnic riots is likely in areas where groups have experienced a loss of ethno-political power and co-exist with groups that have gained power. The likely objective of ethnic rioting
in contexts of political change is to challenge outcomes that lead to loses in power, and by extension, influence future outcomes.

Political downgraded provides a more immediate and exogenous shock that can provoke strong reactive emotions over the loss of power and uncertainties over future access to resources and security provisions (Fjelde and Höglund 2016; Toha 2017). As a temporal shock, ethno-political downgrading provides a perfect storm, generating uncertainty as to how change will impact the group, amid an environment of ineffective policing. This enhances the likelihood that reactive group emotions will emerge and trigger violence (Horowitz 2003; Bertrand 2008). Uncertainty within tense interethnic contexts generates a unique sense of urgency among group members. In threatening situations brought about by political change, urgency facilitates reactive violence as it is perceived as far less costly than waiting and facing imminent violence (Elster 2009). In Kenya, ethno-political representation is tied to patronage because of how it relates to land redistribution. After the 2002 elections, the Kikuyu had a strong-hold over government giving them control of land distribution. This led to post-election violence against the Kikuyu by the politically downgraded Kalenjin who feared land would be redistributed (Harris 2012).

Finally, some types of downgrading are a greater political threat than others. More severe forms of downgrading, such as newly experienced discrimination or a recent removal from government, are likely to increase the risk of intergroup violence. In the most severe form of downgrading, groups have recently been systematically discriminated against in political representation. Clashes in the DRC occurred during the 2006 elections after the northern groups (Ngbandi, Mbandja, Ngbaka), represented by former rebel leader Jean Bemba lost the governmental representation they had enjoyed in the post-conflict power-sharing government. Significantly, the more severe the level of change the greater the uncertainty and political
threat, and in turn, the more likely political change will provoke ethnic riots. This notion informs my final hypotheses:

H2a: Ethnic riots are more likely in areas where a group has recently experienced a downgrade in political representation.

H2b: The more severe the political downgrading in an area the higher the likelihood of ethnic riots.

H2c: Ethnic rioting should be more likely in areas where politically downgraded groups coexist with politically upgraded groups.

Research Design

My theoretical claims and hypotheses are tested across geographical grid-years in Africa from 1990 to 2008. Based on the PRIO-Grid (Tollefsen, et al. 2012), the study’s design permits a temporal and spatial analysis of when and where ethnic riots occur and do not occur. Such violence is very common in Africa and the continent exhibits considerable variation in levels of ethno-political representation and there exists consistent and systematic data. Ethnic riots have only occurred in 0.14% of all grid-years; therefore, I use a rare-events logistic regression model suitable for rare events and binary outcomes (Tomz, Zeng, and King 1999). This method adjusts for the tendencies of conventional logistic models to underestimate the likelihood of rare-events (King and Zeng 2001).\(^9\)

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\(^9\) While the results of logistic regression are identical to mine using rare-events logistic regression, the latter amends the standard errors which can impact the reliability of the results, in particular levels of statistical significance.
Dependent Variable

Using new spatially disaggregated events data, this study develops a new indicator of ethnic riots in Africa (see Table 5, - online appendix). The data were collected by recoding a subset of broader riot events found in the Social Conflict Analysis Database (SCAD) (Salehyan et al. 2012). For each event, the SCAD Dataset provides information on dates, geographical coordinates, and a description of incidents and actors, permitting a subnational analysis of ethnic riots across time and space.\(^{10}\) I code ethnic riots as events involving civilian members of two politically relevant ethnic groups, engaged in violence against each other (Wilkinson 2004), matching the antagonists with ethnic groups included in the Ethnic Power Relations (EPR) dataset (Wimmer, Cederman, and Min 2009). The EPR data is explained in more detail below. This dyadic approach includes non-militarized forms of communal violence and inter-party violence, when involving clearly defined ethnic political party supporters.\(^{11}\) For example, clashes between Kikuyu supports of President Kibaki and Luo supporters of opposition leader Odinga in Kenya.

As figure 1 shows, the grid-locations of ethnic riots (in black), occur in urban locations of countries where ethnicity is particularly salient (grey shows the settlement areas of ethnic groups within the EPR data). However, there is spatial variation, since ethnic riots do not occur in all countries with salient ethnic groups and not in all locations within these countries.

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\(^{10}\) While response bias is a concern when using events data, SCAD events are based on news reports from the Associated Press and Agence France Presse newswires, both of which use local news sources that have extensive knowledge of the countries they cover. SCAD also improves on other event datasets. For example, the Cross-National Time-Series (CNTS) Data Archive is based solely on reports from the New York Times. See Salehyan et al (2012) for a further discussion. While there is a possibility of reporting bias over time, this is addressed in the robustness checks.

\(^{11}\) An ethnic party is defined as clearly representing the interests of one group or set of groups at the specific exclusion of others (Chandra 2011). Note: this is sensitive over time, which is reflected in the coding of the SCAD events data.
The lack of geographical overlap between types of political unrest is evident when looking at descriptive in Table 1. Ethnic riots largely occur outside of active armed conflict zones, countries experiencing civil war and can occur as long as 44 years after a civil-war. There is also little spatial overlap with armed communal violence i.e. cattle raiding, which reflects a rural-urban distinction between the two forms of violence. Where ethnic violence does co-

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12 When looking at the distribution of violence events across geographical grid locations, only 15 ethnic riots have occurred in the same locations as an ongoing armed conflict. Of these armed events, only six were directly related to ethnic riots, all in South Africa. In these events violence occurrence between the ANC and IFP’s armed wings and escalated from ethnic riots, not the other way around.
occur, this involves different actors engaged in different locations within a grid and is largely confined to Nigeria which is a country facing multiple security challenges. Lastly, ethnic riots do not simply escalate from existing protests.\footnote{While 15\% of ethnic riots overlap with areas with protests, only seven cases actually led to ethnic riots: an Fulani general strike in Cameroon (1991), an anti-government strike that escalated into Hutu-Tutsi clashes in Burundi (1994), four violent Muslims-Christian clashes in Kano after protests in Nigeria (1991), and Xhosa-Zulu violence in Johannesburg, South Africa (1994), after an IFP party march.}

### Table 1. Spatial (PRIO-Grid) and Temporal (year) overlap between Conflict Types

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Escalating Protests</th>
<th>Armed Conflict in Grid (UCDP)</th>
<th>Civil-War Year</th>
<th>One Year After a Civil-war</th>
<th>UCDP Communal Violence in Grid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overlap with Ethnic Riots</td>
<td>39 (17%)</td>
<td>15 (7%)</td>
<td>28 (12%)</td>
<td>16 (7%)</td>
<td>29 (13%)</td>
</tr>
<tr>
<td>No Overlap with Ethnic Riots</td>
<td>186 (83%)</td>
<td>210 (93%)</td>
<td>197 (88%)</td>
<td>209 (93%)</td>
<td>196 (87%)</td>
</tr>
</tbody>
</table>

A second condition is ethnic riots are sporadic events, in contrast to sustained types of action working towards a long-term political goal such as mass protests or armed conflict against the state. Finally, ethnic riots involve mass participation; I code events that have a minimum of 100 participants to exclude neighbourhood brawls. This draws on Brass’s (2003) definition of massed-crowds, which rules out routine crime, gang violence and bar fights. While such events can trigger ethnic rioting, this conservative threshold effectively rules out cases where potential triggers failed to escalate into ethnic rioting. Grid-years containing at least one ethnic riot event are assigned a 1, otherwise a 0. Between 1990 and 2008, 268 ethnic riots occurred in 225 grid-cell locations across 28 of the 47 African countries included in the full sample (Figure 1). As suggested in the theory, the majority of the violence was between politically advantaged and disadvantaged groups. Nevertheless, there is some variation in this dyadic relationship with
violence occurring, albeit less commonly, between included groups\(^{14}\) and on very rare occasions, between excluded groups.\(^{15}\)

**Independent Variables**

To operationalize ethno-political representation, I use existing ethnic group-level data from the EPR dataset (Version 3.0) which codes the levels of political representation of all politically relevant ethnic groups (Wimmer, Cederman, and Min 2009).\(^{16}\) The levels of ethno-political representation are broken down into a series of dichotomous variables for all groups in the ethno-political hierarchy of political power: undivided groups (have a monopoly on or dominate the executive), senior and junior partners (in a power-sharing government), regional autonomy (regional power), powerless, discriminated groups (systematic exclusion from power) and a dummy variable for grids without politically relevant ethnic groups.\(^{17}\) For changes in ethno-political representation I generate three further dummy variables: groups experiencing a change in political power in the last two years (Cederman, Gleditsch and Buhaug 2013), groups experiencing new discrimination, and groups facing serious downgrading (removed from government). I include identical variables to control for recently upgraded groups.

\(^{14}\) This is very common during changes in power, particularly during national elections. In many instances this change occurs in the context of powersharing, but where one group losing some power, relative to another group, who claim they deserve more power. In other examples, a group remains included in the political system, but a previously excluded group also gains political power. Outside of Africa, Northern Ireland is a good example, where Catholics gained positions in power after the Good Friday Agreement, while Protestants display resentment at losing benefits of dominating power and express a ‘loose of identity’, leading to sporadic urban violence.

\(^{15}\) This dyadic category is largely confined to Democratic Republic of Congo and South Africa in the early 1990s. Both are unique cases where in the DRC, violence occurs in the context of a decline in state capacity, while in South Africa, violence predominately occurred in KwaZulu-Natal state in the context of ongoing peace negotiations. Violence was largely been Zulu members of the IFP party and Xhosa members of the ANC, where both parties were competing over the expectation of future power arrangements.

\(^{16}\) While the EPR data is a proxy for possible ethnic motivations for groups to engage in violence, this is the best available data. The alternative Afrobarometer data provides some individual-level data on ethnic affiliation, but no specific questions focus on group member motivations to engage in violence. Moreover, unlike the EPR dataset, Afrobarometer data is only available in some countries across four rounds of surveys (years).

\(^{17}\) Excludes separatist areas as no events occur in these grid-years.
To capture ethno-political configurations at the subnational grid-level, I use geo-referenced data from the Geo-EPR dataset on the settlement areas of the different types of ethno-political groups (Wucherpfennig et al. 2011). I produce five dummy variables at the grid-level for the five types of political representation and a dummy variable for grids not inhabited by a politically relevant ethnic group. Unlike previous group-level analyses (see Cederman, Gleditsch and Buhaug 2013), my approach accounts for spatial variation across ethnic group settlement areas as not all types of group areas will witness ethnic violence (Varshney 2002).

**Figure 2.** PRIO Grid, Group Settlement Areas, and Ethnic Riots in Kenya (1990-2008)

Using Kenya as an example, Figure 2 provides a visual illustration of the data, with ethnic riot locations and geo-referenced group areas overlaid by the PRIO-GRID. For the first hypothesis, the variable of interest is discriminated group areas. Figure 2 also highlights in bold the Kikuyu settlement areas in the centre of the country. Before the 2002 elections, these Kikuyu grid-

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18 Dominant group areas are used as the reference category against other ethno-political categories and grids without ethnic groups.
years are coded as politically discriminated areas to reflect the group’s systematic removal from political power.

Although the EPR data is based on ethnic homelands where a particular group is numerically dominant, the dyadic nature of ethnic riots show there is ethnic heterogeneity within these homelands. While the Geo-EPR data is not best placed to capture this heterogeneity within group settlement areas, my dyadic coding of ethnic riots ensures the participation of other EPR groups in these areas. Moreover, violence is more likely in settlement areas where disadvantaged groups have a numerical advantage. This bigger presence reduces the risks to the ingroup of engaging in violence but also increases perceptions of threat within the out-group (Horowitz 2003; Balcells, Daniels and Escriba-Folch 2016).

To analyse the importance of proximity, I generate an interaction term that captures grids where discriminated and dominant (have undivided power) groups coexist or border each other. Finally, to assess the proximity of downgraded and upgraded groups, I create an interaction that captures the coexistence of upgraded and downgraded groups (both variables are coded as 1 in grids where these proximities exist, otherwise 0).

**Controls**

This study includes a number of grid-level controls (see Table 6, - online appendix). Firstly, it includes the natural log of grid-level GDP taken from G-Econ wealth estimates (Nordhaus 2006) as poorer populations are more likely to participate in riots (Scacco 2010). Secondly, it employs the natural log of grid-level population (CIESEN 2005) since higher and more concentrated populations increase the risk of unrest (McDoom 2013).\(^{19}\) Thirdly, I add a set of controls including the time (minutes) to the nearest urban centre, and distance (kilometres) to

\(^{19}\) Grid GDP and population data are estimated at 5-year intervals. I take the average between these time periods to extrapolate data within these time periods.
the capital (Tollefsen et al. 2012) as urban areas facilitate social networks that enable unrest. Finally, I include a spatial lag of the dependent variable to account for spatial correlation (Ward and Gleditsch 2008), and the number of years since the last ethnic riot and cubic splines to account for time dependence (Beck, Katz and Tucker 1995).

The study includes standard national-level controls related to violence: a natural log of national population (World Bank 2013), and the number of peace years since a country last experienced a civil war, since post-conflict African countries tend to be weaker and more prone to ethnic violence. Also included is the Polity2 measure for regime type (Marshall and Jaggers 2010), since ethnic riots are often related to democratizing states (Tajima 2014; Toha 2017). Additional controls include the size of excluded ethnic groups as larger groups are more willing and better placed to challenge dominant groups (Buhaug, Cederman and Gleditsch 2014), and a dummy variable is added for national election years as African elections are particularly susceptible to rioting (Lindberg 2009). Lastly, the number of excluded groups in the state is included.

Results

This section presents the results of multiple rare-events logistic regression models across the 196852 grid-cell years of 47 African states.20 The first hypothesis (1a) proposes that areas containing politically discriminated groups are more likely to witness ethnic riots. In Model 1, the discriminated group variable reports a positive coefficient and is the only EPR category that is statistically significant in models 1 (p<0.001). This suggests that locations with politically discriminated groups are more likely to witness ethnic riots than other ethno-political categories. This provides support for hypothesis 1a.

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20 Grid-cells with a sparse population less than 100 are excluded from the analysis.
Table 2. Rare-Events Regression: Locations of Ethno-Political Discrimination and Ethnic Riots

<table>
<thead>
<tr>
<th></th>
<th>Model 1 Ethnic Riot</th>
<th>Model 2 Ethnic Riot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undivided Power (Dominant Group Grid)</td>
<td>0.200</td>
<td>1.334***</td>
</tr>
<tr>
<td>Dominant X Discriminated Grid (Coexist)</td>
<td>(0.274)</td>
<td>(0.419)</td>
</tr>
<tr>
<td>Senior Group (power-sharing) Grid</td>
<td>-0.011</td>
<td>0.260</td>
</tr>
<tr>
<td></td>
<td>(0.362)</td>
<td>(0.336)</td>
</tr>
<tr>
<td>Junior Group (power-sharing) Grid</td>
<td>-0.036</td>
<td>0.208</td>
</tr>
<tr>
<td></td>
<td>(0.199)</td>
<td>(0.158)</td>
</tr>
<tr>
<td>Autonomous Group Grid</td>
<td>0.527</td>
<td>0.735</td>
</tr>
<tr>
<td></td>
<td>(0.737)</td>
<td>(0.735)</td>
</tr>
<tr>
<td>Powerless Group Grid</td>
<td>-0.131</td>
<td>0.141</td>
</tr>
<tr>
<td></td>
<td>(0.309)</td>
<td>(0.331)</td>
</tr>
<tr>
<td>Discriminated Group Grid</td>
<td>0.762***</td>
<td>0.594***</td>
</tr>
<tr>
<td></td>
<td>(0.212)</td>
<td>(0.228)</td>
</tr>
<tr>
<td>No EPR Group in Grid</td>
<td>-1.198*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.535)</td>
<td></td>
</tr>
<tr>
<td>Grid Wealth (GCP) (log)</td>
<td>0.044</td>
<td>0.104</td>
</tr>
<tr>
<td></td>
<td>(0.099)</td>
<td>(0.111)</td>
</tr>
<tr>
<td>Grid Population (log)</td>
<td>0.843***</td>
<td>0.865***</td>
</tr>
<tr>
<td></td>
<td>(0.088)</td>
<td>(0.085)</td>
</tr>
<tr>
<td>Riots in Neighbouring Grid</td>
<td>4.381***</td>
<td>4.213***</td>
</tr>
<tr>
<td></td>
<td>(0.543)</td>
<td>(0.536)</td>
</tr>
<tr>
<td>Size of Excluded Group in Grid</td>
<td>0.528</td>
<td>0.402</td>
</tr>
<tr>
<td></td>
<td>(0.448)</td>
<td>(0.513)</td>
</tr>
<tr>
<td>Time to Urban Centre (mins)</td>
<td>-0.002*</td>
<td>-0.002*</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>Distance to Capital (km)</td>
<td>-0.000</td>
<td>-0.000</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td>(0.000)</td>
</tr>
<tr>
<td>No. Excluded Groups (nationally)</td>
<td>0.058</td>
<td>0.077+</td>
</tr>
<tr>
<td></td>
<td>(0.040)</td>
<td>(0.040)</td>
</tr>
<tr>
<td>National Population (log)</td>
<td>-0.213+</td>
<td>-0.161</td>
</tr>
<tr>
<td></td>
<td>(0.117)</td>
<td>(0.110)</td>
</tr>
<tr>
<td>Regime Type (Polity2)</td>
<td>0.091***</td>
<td>0.096***</td>
</tr>
<tr>
<td></td>
<td>(0.026)</td>
<td>(0.028)</td>
</tr>
<tr>
<td>National Elections</td>
<td>0.805**</td>
<td>0.834***</td>
</tr>
<tr>
<td></td>
<td>(0.281)</td>
<td>(0.291)</td>
</tr>
<tr>
<td>Number of Peace Years (since the last Civil War)</td>
<td>0.006</td>
<td>0.007</td>
</tr>
<tr>
<td></td>
<td>(0.007)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>Years Since Last Ethnic Riot</td>
<td>-0.577***</td>
<td>-0.577***</td>
</tr>
<tr>
<td></td>
<td>(0.118)</td>
<td>(0.129)</td>
</tr>
<tr>
<td>Spline1</td>
<td>-0.025</td>
<td>-0.029</td>
</tr>
<tr>
<td></td>
<td>(0.035)</td>
<td>(0.036)</td>
</tr>
<tr>
<td>Spline2</td>
<td>-0.000</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>(0.016)</td>
<td>(0.016)</td>
</tr>
<tr>
<td>Spline3</td>
<td>0.003</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>(0.005)</td>
<td>(0.005)</td>
</tr>
<tr>
<td>Constant</td>
<td>-11.875***</td>
<td>-13.946***</td>
</tr>
<tr>
<td></td>
<td>(1.557)</td>
<td>(1.569)</td>
</tr>
<tr>
<td>Observations</td>
<td>196852</td>
<td>196852</td>
</tr>
</tbody>
</table>

+ p<0.1 * p<0.05, ** p<0.01, *** p<0.001  Cluster-robust standard errors in parentheses.
All models are clustered around country-level standard errors (47 clusters). Reference category: Model 1: monopoly/dominant group settlement areas. Model 2: no EPR groups in the grid-year.
The substantive effect of coefficients are difficult to interpret in logistic regression models. Therefore, I explore marginal effects in Table 3, assessing the discrete change in the predicted probability of ethnic rioting in grids where a discriminated ethnic group is present compared with grids where they are not. Overall, the predicted likelihood of ethnic rioting occurring in a given location is quite low since ethnic riots are a rare event. The data shows that ethnic riots only occurred in 0.13% of African grid-cells between 1990 and 2008. While the likelihood of ethnic rioting is low, ethnic riots are twice as likely to occur in grids where ethno-politically discriminated groups are present, compared to where they are not. This effect is largely comparable to elections, which has a similar substantive impact on the likelihood of ethnic rioting.

**Table 3.** Predicted Probability of Ethnic Riots when Discriminated Groups are Present (1) and Not Present (0)

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Probability of Ethnic Riots (when IV is at 0)</th>
<th>Probability of Ethnic Riots (when IV at 1)</th>
<th>Type of Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discriminated Group Area</td>
<td>0.00106</td>
<td>0.00215</td>
<td>Positive</td>
</tr>
<tr>
<td>Elections (as a comparison)</td>
<td>0.00089</td>
<td>0.00178</td>
<td>Positive</td>
</tr>
</tbody>
</table>

Next, I move to the next hypothesis (1b), which states the occurrence of ethnic riots should be more likely in areas where ethno-politically discriminated groups and dominant groups coexist. I include an interaction between discriminated and dominant group settlement areas in model 2 which reports a positive and statistically significant coefficient (p < 0.001). However, interaction effects cannot be interpreted by merely looking at the regression coefficient (Berry, Golder and Milton 2012). Again exploring marginal effects are needed to tease out this potentially conditional relationship. Table 4 reports the predicted likelihood of ethnic riots, given the presence of politically discriminated groups, and conditioned on the co-existence and non-presentation of a politically dominant groups. While ethnic rioting is rare, the marginal effects
show that ethnic riots are nearly two times more likely to occur in heterogeneous grids where discriminated and dominant groups coexist, compared to grids where only discriminated groups are present. This provides support for Hypothesis 1b, since ethnic rioting is most likely is areas of high political inequalities; where discriminated groups coexist with dominant groups.

**Table 4.** Predicted Probability of Ethnic Riots in Discriminated Groups Areas, when Dominant Groups are Present (1) and Not Present (0)

<table>
<thead>
<tr>
<th>Interaction</th>
<th>Probability of Ethnic Riots (Conditional variable at 0)</th>
<th>Probability of Ethnic Riots (Conditional variable at 1)</th>
<th>Type of Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discriminated Group Area X Dominant Group Area (conditional variable)</td>
<td>0.00125</td>
<td>0.00220</td>
<td>Positive</td>
</tr>
</tbody>
</table>

I now evaluate my next hypotheses in relation to political change (2a-2b). Firstly, ethnic rioting should be more likely in areas where a group has recently faced a downgrade in political representation (H2a). Secondly, the likelihood of violence should be higher for more severe types of downgrading (H2b).

Models 3-5 in Table 5 provide evidence for Hypotheses 2a and 2b. I first consider the impact of downgrading, where a ethno-political ethnic group has faced a loss of power in the last two years. Model 3 reports a positive and significant estimate (p <0.001). I then explore whether this likelihood is increased when the type of downgrading is more severe. Models 4-5 show that the positive and significant coefficients are stronger with more severe forms of downgrading; the likelihood of ethnic violence is further increased in locations where a group has recently lost governmental power or has been newly politically discriminated against (both p <0.05). Areas inhabited by a group that has experienced an upgrade in political representation are not statistically significant.
Table 5. Rare- events Regression: Locations of Ethno-Political Downgrading and Ethnic Riots

<table>
<thead>
<tr>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downgrade in Political Power Grid</td>
<td>0.535*</td>
<td>0.168</td>
<td>0.211</td>
</tr>
<tr>
<td>Upgrade in Political Power Grid</td>
<td>0.267</td>
<td>-0.084</td>
<td>0.226</td>
</tr>
<tr>
<td>Recent New Discrimination Grid</td>
<td>1.160*</td>
<td>(0.489)</td>
<td>-0.237</td>
</tr>
<tr>
<td>Post Discrimination Grid</td>
<td>0.536</td>
<td>0.013</td>
<td>0.083</td>
</tr>
<tr>
<td>Recent Loss of Govt Power Grid</td>
<td>1.255*</td>
<td>(0.501)</td>
<td>-0.231</td>
</tr>
<tr>
<td>Recent Entry to Govt Power Grid</td>
<td>Downgraded X Upgraded Grid</td>
<td>1.092**</td>
<td>(0.397)</td>
</tr>
<tr>
<td>No EPR Group in Grid</td>
<td>-1.79*</td>
<td>-1.207*</td>
<td>-1.230*</td>
</tr>
<tr>
<td>Grid Wealth (GCP) (log)</td>
<td>0.022</td>
<td>0.054</td>
<td>0.083</td>
</tr>
<tr>
<td>Grid Population (log)</td>
<td>0.876***</td>
<td>0.870***</td>
<td>0.858***</td>
</tr>
<tr>
<td>Riots in Neighbouring Grid</td>
<td>4.381***</td>
<td>4.213***</td>
<td>4.251***</td>
</tr>
<tr>
<td>Size of Excluded Group</td>
<td>0.528</td>
<td>0.529*</td>
<td>0.402</td>
</tr>
<tr>
<td>Time to Urban Centre (mins)</td>
<td>-0.002*</td>
<td>-0.002*</td>
<td>-0.002*</td>
</tr>
<tr>
<td>Distance to Capital (km)</td>
<td>-0.000</td>
<td>-0.000</td>
<td>-0.000</td>
</tr>
<tr>
<td>No. Excluded Groups</td>
<td>0.058</td>
<td>0.061+</td>
<td>0.077+</td>
</tr>
<tr>
<td>National Population (log)</td>
<td>-0.213+</td>
<td>-0.232+</td>
<td>-0.161</td>
</tr>
<tr>
<td>Regime Type (Polity2)</td>
<td>0.091***</td>
<td>0.096***</td>
<td>0.078***</td>
</tr>
<tr>
<td>National Elections</td>
<td>0.805**</td>
<td>0.834**</td>
<td>0.800*</td>
</tr>
<tr>
<td>Number of Peace Years (since the last Civil War)</td>
<td>0.006</td>
<td>0.008</td>
<td>0.007</td>
</tr>
<tr>
<td>Years Since Last Ethnic Riot</td>
<td>-0.577***</td>
<td>-0.561***</td>
<td>-0.577***</td>
</tr>
<tr>
<td>Spline1</td>
<td>-0.025</td>
<td>-0.023</td>
<td>-0.029</td>
</tr>
<tr>
<td>Spline2</td>
<td>0.035</td>
<td>0.034</td>
<td>0.030</td>
</tr>
<tr>
<td>Spline3</td>
<td>0.016</td>
<td>0.001</td>
<td>0.015</td>
</tr>
<tr>
<td>Constant</td>
<td>-17.74***</td>
<td>-17.89***</td>
<td>-18.46***</td>
</tr>
<tr>
<td>Observations</td>
<td>196852</td>
<td>196852</td>
<td>196852</td>
</tr>
</tbody>
</table>

+ p<0.1 * p<0.05, ** p<0.01, *** p<0.001
Cluster-robust standard errors in parentheses. All models are clustered around country-level standard errors (47 Clusters). Reference category: grids with no change in ethno-political representation.
to better understand the substantive effects I again explore marginal effects of the coefficients reported in Table 5. Table 6 shows the predicted likelihood of ethnic rioting increases with more severe types of downgrading, compared to locations where downgraded groups are not present. Ethnic riots are nearly twice as likely to occur in locations where recently downgraded groups reside, and are three times more likely to occur where a group has been completely removed from power or are removed and face discrimination.

Table 6. Predicted Probability of Ethnic Riots when Downgraded Groups are Present (1) and Not Present (0)

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Probability of Ethnic Riots (when IV is at 0)</th>
<th>Probability of Ethnic Riots (when IV at 1)</th>
<th>Type of Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downgraded Group Area</td>
<td>0.00108</td>
<td>0.00177</td>
<td>Positive</td>
</tr>
<tr>
<td>Newly Discriminated Area</td>
<td>0.00111</td>
<td>0.00318</td>
<td>Positive</td>
</tr>
<tr>
<td>Recent Loss of Power Area</td>
<td>0.00109</td>
<td>0.00347</td>
<td>Positive</td>
</tr>
</tbody>
</table>

Finally, I explore the final hypothesis (2c), which states the occurrence of ethnic riots should be exacerbated by the close proximity of downgraded and upgraded groups (H2c). In Table 5, the coefficient for this interaction is both positive and statistically significant (p<0.01). I run marginal effects to further aid the interpretation of this interaction.

Table 7 reports these marginal effects, exploring the predicted likelihood of ethnic riots in downgraded group locations, but conditional on whether upgraded groups also coexist in the same grid or not. Here the marginal effect is quite small, with ethnic rioting only been 12.7% more likely in areas where downgraded groups co-exist with upgraded groups, when compared to areas where only downgraded groups are present. While this provides some evidence for Hypothesis 2c, it is clear ethnic rioting involving downgraded groups is not largely dependent
on the presence of upgraded groups in the same location, and can occur with different types of
groups, such as those that have retained power.

Table 7. Predicted Probability of Ethnic Riot in Downgraded Groups Areas, when Upgraded
Groups are Present (1) and Not Present (0)

<table>
<thead>
<tr>
<th>Interaction</th>
<th>Probability of Ethnic Riots (Conditional variable at 0)</th>
<th>Probability of Ethnic Riots (Conditional variable at 1)</th>
<th>Type of Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downgraded Group Area X</td>
<td>0.00103</td>
<td>0.00118</td>
<td>Slightly Positive</td>
</tr>
<tr>
<td>Upgraded Group Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(conditional variable)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The control variables have generally behaved as expected across all models. More populated
grids, violence in previous years, and violence in neighbouring locations are consistently strong
predictors of violence. Larger excluded groups also impact the likelihood of ethnic riots
although this is not always statistically significant. In contrast to Scacco’s (2010) findings at
the individual-level, I find no significant relationship between levels of wealth and intergroup
violence at the grid-level. I also find little evidence that ethnic riots are related to distances to
the national capital, although ethnic riots are more likely to occur close to urban centres. At the
country-level, ethnic riots are more likely to take place in more democratic rather than
autocratic states and is strongly related to national election years, one potential form of ethno-
political downgrading. Finally, the number of excluded groups has a small effect but larger
national populations and peace years have no significant effect on ethnic riots.

Robustness Checks

To further determine the robustness of my findings I run a series of additional checks (see
Tables 10-16, - online appendix). The purpose of robustness checks is to explore whether the
coefficients are still plausible and robust under different model specifications. First, I run a reduced version of each model to check whether the results are influenced by the control variables. This reduced version includes the main explanatory variables, population and temporal and spatial lags, and produces similar results (Table 10). Next, I check whether the theoretical mechanisms are unique to ethnic riots and not simply a substitution of organized and armed communal violence, as suggest by the descriptive statistics. Following Fjelde and Østby (2014), I rely on data from the Uppsala Conflict Data Program (UCDP) Georeferenced Event Dataset (UCDP-GED) (Sundberg and Melander 2013) to capture armed communal violence. While armed communal violence increases the likelihood of ethnic rioting, this does not change the main results (See Models 11-14, Table 11 – Online Appendix).

I then explore armed and organized communal violence as an alternative outcome (Models 15-16). There is one similarity, in that ethnic discrimination drives both ethnic rioting and communal violence. Yet there are key distinctions. Firstly, powerless groups are more likely to engage in communal violence, while downgrading has no effect. Secondly, unlike ethnic rioting, communal violence predominately occurs in peripheral regions where no politically relevant ethnic groups reside, in line with Raleigh’s (2014) findings. Lastly, proximity has no impact on communal violence. In fact, communal violence does not occur at all in areas inhabited by dominant and discriminated groups or downgraded and upgraded groups. The distinctions set ethnic rioting apart from more organized forms of ethnic violence.

Next I run alternative modules using lagged independent variables, to better ensure causal ordering; i.e. that ethnic riots have occurred after a transition of power has taken place. This produces identical results (Models 17-18).

---

21 This includes violence between organized ethnic groups, and excludes violence between rebel groups.
22 Political inequalities are persistent and vary little over time (Stewart, 2008). When looking at the data, political discrimination remains largely static despite the occurrence ethnic riots.
Fourthly, I control for other possible alternative explanations for the occurrence of ethnic rioting. The findings could be explained by heightened by particular institutional designs, i.e. presidential systems (see Horowitz 1985; Linz 1990). While parliamentary systems reduce the risk of ethnic rioting this does not change the main results. Other alternative explanations may explain ethnic rioting: economic group inequalities (Fjelde and Østby 2014), the lack of political rights (Freedom House), national resource rents (i.e. intergroup competition over natural resources) (Basedau and Pierskalla 2014), youth bulges (riot participants tend to be younger) (Urdal 2008), and state repression (can result in violent backlashes) (Tables 12-14). While state repression and youth bulges are positive predictors of ethnic rioting, this does not change the robustness of my explanatory variables.

Fifthly, I explore the possibility the results are driven by reporting bias. I include the year as a control to account for any reporting bias of events, and include a dummy variable for Nigeria where 34% of the ethnic riots occurred. My results still remain robust (Table 14). Finally, I rerun the analyses with alternative models to check if the results are driven by model choice. I rerun the models using a country-year fixed effect logistic regression, which restricts the analysis to country-years where violence occurs. I then rerun the main analyses with count model (Tables 15-16). Both produce similar findings.

Conclusion

Ethno-political inequalities have largely been overlooked by the literature on ethnic riots. This article has sort to bring together literature on ethnic rioting and ethno-political inequalities to explain why ethnic riots occur in some locations, but not others. The main proposition of the

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23 See codebook (online appendix) for data sources.
24 When I exclude Nigeria from the analysis the results also remain robust.
25 While it is important to test alternative models, I do not believe a FEs model best complements my research design, since a lot of variation is lost by removing country-years without ethnic rioting (see Beck and Katz 2001).
article is that ethnic rioting can be explained by highly unequal ethno-political configurations: greater political inequalities and changes in ethno-political power. These contexts provoke reactive violence over tense intergroup contestation and perceived fear of dominant groups that live in close proximity. The findings of this study offer convincing evidence for this argument. Ethnic riots are more likely to occur in locations where: groups experience ethno-political discrimination, have recently faced a loss in political power, and live in close proximity with groups that are politically dominant. There is less convincing evidence that ethnic riots are more likely to occur in areas where politically downgraded and upgraded groups coexist.

These findings provide a significant contribution to our understanding of ethnic rioting by highlighting the importance of varying ethno-political disparities, providing the first systematic cross-country and within-country analysis of ethnic riots across Africa. In doing so this article makes a significant contribution to the case-based literature on ethnic riots which has relied largely on case evidence. Moreover, this article also makes notable contribution to the broad quantitative literature on inequality and ethnic violence, which has almost exclusively focused on armed and militarized forms of political violence, as well as literature on micro-level conflict.

These findings also have broad implications for human security and provide important policy implications. Firstly, this form of localized violence has serious consequences for social cohesion, which is a core focus of contemporary international development agendas. The Pathways for Peace report (2018), places social cohesion at the centre of recommended policies to prevent violence, with the need to address grievances around exclusion from access to power, opportunity and security (United Nations and World Bank 2018). The World Banks’s preceding Inclusion Matters report highlights the importance of political and social inclusion (World Bank 2013); recommending the creation of cross-cutting approaches to ethnic divisions and institutional pathways that promote equity, shared prosperity and forge intergroup
cooperation in ways that undermine interethnic competition and extreme poverty that can lead to violence (see pg.229).\textsuperscript{26}

These agendas, however, are largely focused on armed conflict. This research highlights the importance of extending this agenda to more localized violence, such as ethnic rioting that can be extremely violent, with vulnerable victims being targeted based purely on their ethnicity. Ethnic rioting can have huge and devastating consequences for wider state security in the form of: internal displacement, the entrenchment of ethnic divisions and the potential to escalate into armed conflict. These findings show democratizing states, as well as some more mature democracies, are not immune from ethnic violence, and highlights the importance of tackling the politicization of ethnicity as well as inequalities that increases social marginalization.

Policy makers should also be mindful of the consequences of political change in tense interethnic environments, such as national elections and democratic transitions. Such change are often considered instruments of peacebuilding and ongoing democratization, but when failing to addressing ethno-centralism and unequal political representation, such change can lead to insecurity and violence. Moreover, ethnic riots often occur in tense ethno-political environments where weak state institutions (Tajima 2014) and ineffective police protection (Scacco 2010) fail to quell tensions and reactive violence. Governments need to be responsive to the concerns of their citizens by providing fairly distributed public services, adequate security, and strong institutions to address citizen concerns.

While the findings are robust under a number of different specifications, these results are somewhat suggestive given the limitations of the study. While a lack of systematic survey

\textsuperscript{26} See also the UN Development program’s Community Security and Social Cohesion (CSSC) (United Nations Development Program 2009) initiative, aimed at developing interventions that collectively enhancing human security, human development and state-building through reducing exclusion and increasing social cohesion.
data prevents an individual-level analysis of group member motivations, this article nevertheless makes assumptions about group member motivations using broader group-level measures of ethnic differences. Until new data is collected, such analyses is limited to case-study analyses of select cities. Another limitation is there is no cross-country systematic data on interventions in ethnic rioting. While police forces are often neutral and lack capacity to effectively intervene in ethnic rioting, future data collection endeavours could explore government and civil society interventions in ethnic rioting, following the lead of Varshney’s (2002) study on India. While this article looks at where violence occurs, research on interventions could provide important findings for where violence does not occur and what factors contribute to security amid ethno-political environments that are susceptible to violence. Future research could also explore other forms of low-intensity violence that impact human and wider state security. For instance, the determinants of service delivery violence, xenophobic violence and intra-ethnic violence.
References


