

Survival of the Fittest: Explaining the Success of Ethnic Autonomy Arrangements

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Abstract: *The empirical evidence indicates that ethnic autonomy arrangements (EAAs) survive more often than not, but this mixed track record raises an important question. What accounts for the survival of some systems and not others? We theorize that that this differential survival rate is partly a function of variation in their internal structure. EAAs that are structured to create and best sustain an equilibrium in bargaining relations between center and periphery have the highest probability of survival. It follows logically that the more unbalanced the system in favor of either the center or periphery, the less likely to survive. We test the theory using logit analysis on an original data set drawn from the universe of post-1945 EAAs. After controlling for level of democracy and wealth disparity, the key finding is that the internal structure of an EAA matters for its survival. One important implication of these findings is that, for any given level of democracy, ethnofederal systems can be systematically designed to maximize survival prospects*

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Introduction

The persistence and prevalence of instability in multi-ethnic societies into the second decade of the twenty-first century is puzzling to many because it seems to cut against the optimistic expectations of many that the forces of globalization would gradually erode the significance of local identity differences as states converge around a set of shared institutional forms (free market capitalism and democracy) and that, in Walt's (2015) words, "Messy local issues like minority rights or border disputes would gradually disappear from the global policy agenda and we'd all converge into one big and mostly happy global family."¹ As the authors of the introduction to this issue (Siroky et al. 2016) usefully remind us, politically relevant ethnic divisions can generate friction even in the most secure, prosperous heart of democratic Europe; but elsewhere in the world, the stakes are significantly higher, as seemingly intractable ethnic conflicts continue to inflict misery, death and destruction on large numbers of the affected (mainly civilian) populations.²

¹ Ethnicity is a notoriously slippery concept. For current purposes we rely on Van Dyke's (1977: 344) definition of an "ethnic community as "a group of persons, predominantly of common descent, who think of themselves as collectively possessing a separate identity based on race, or shared cultural characteristics, usually language or religion."

² Data from Uppsala University's "Conflict Database" indicate 50 conflicts that were active (i.e. 25 or more battle deaths) during 2015 (www.ucdp.uu.se/database). Of these, 40 had a significant ethnic component. These 40 conflicts were responsible for the deaths of some 163,000 people (or 90 percent) out of a total death toll of 182,000 in 2014.

Unfortunately, there remains no consensus among scholars on how best to design political institutions to manage inter-ethnic relations in divided societies. The focus here is on ethnic autonomy arrangements (EAAs). While some contend that ethnic autonomy is a potentially useful institutional arrangement for accommodating the demands of ethnic groups (usually minorities) within ethnically divided societies (McGarry and O'Leary 2009; Lijphart 1977; Levy 2007; Wolff 2010; Hechter 2000), others remain skeptical. Roeder (2009: 205), for example, finds it "remarkable" that practitioners continue to embrace ethnic autonomy as a solution to conflict given the "substantial body of prior expert opinion warning against this." EAAs are an "imprudent" institutional choice, according to Roeder, because they all but guarantee recurrent political crises, secession, and even state collapse. This view is shared by many (Roeder 2007; Brubaker 1996; Bunce 1999; Jenne 2009; Lipset 1988; Bunce and Watts 2005; Cornell 2002). This scholarly disagreement is neatly captured in Erk and Anderson's (2009) term the "paradox of federalism." "The fundamental question," according to the authors, "is whether federalism provides a stable, long-lasting solution to the management of conflict in divided societies or is, instead, a temporary stop on a continuum to secession and independence."

Empirically, the track record of EAAs is mixed; some fail and others succeed, in other words (Anderson 2014). What accounts for this variation in outcome? The focus here is on the relationship between the structural design of an EAA and the probability of its success. We develop a theory that highlights the importance of creating and maintaining a stable balance of power (numbers and loyalties) between center and periphery for the survival of an EAA. We hypothesize that systems that are structured to create a (more or less) equitable balance of numbers and loyalties between the center and the system's constituent subunits stand the best chance of survival; conversely, systems in which this balance is tipped too far one way or the other are more prone to failure. We test this hypothesis using logit analysis on data drawn from the universe of post-1945 EAAs. The results confirm that the internal structure of an EAA has an important effect on its survival prospects, and suggest that EAAs can, literally, be engineered to succeed.

Why does it Matter?

EAAs are first-order³ territorial units that enjoy autonomy on the basis of ethnic (identity) difference, either as a constituent part of a system-wide federation (such as Tamil Nadu in India; cf. also Swenden 2016), or as an attachment to an otherwise unitary state (as in

³ In line with most of the literature we limit the analysis to ethnically-defined units immediately below the level of the common-state government (Sorens 2005; Brancati 2006; Sambanis and Milanovic 2014; Cederman, Hug, and Wucherpfennig 2015). This excludes local and municipal administrative units as well as autonomous second- and third-order units within already existing autonomous subunits. To distinguish EAAs from decentralization and devolution, in which the autonomy can be revoked by central government fiat, we include only EAAs whose autonomy is guaranteed by something other than a simple law. Inclusion requires that the autonomy is reasonably protected against revocation on the basis of simple majority vote. This protection may come in the common-state constitution, as in of Mindanao (the Philippines) and system-wide federations, in a special law, compact, or treaty between the common-state and the autonomous entity, as in Aceh (Indonesia), or by an international agreement or treaty, such as the Dayton Peace Accord that guarantees the autonomy of Bosnia and Herzegovina's two entities (cf. also Zdeb 2016). This last criterion creates a problem with respect to the UK's two EAAs (Wales and Scotland). Neither can have its autonomous status literally entrenched in the UK's Constitution because the UK has no single written document that is considered a constitution. However, both entities gained autonomy after referenda, which, in the opinion of scholars of the UK's constitution, are only conducted to determine issues of major constitutional importance. For a detailed discussion of Scotland and Wales' autonomy situation, see Rezvani (2014), chapter 4.

Moldova/Gagauzia). Since 1945, in excess of 120 entities have fit this definition; some of these have failed via the secession of the ethnic unit (Bangladesh from Pakistan in 1971, for example), others through the formal revocation of autonomy by the center (Eritrea/Ethiopia in 1962), but many more survive to present day. Understanding this variation in outcome is important for two main reasons. First, there are more than 90 EAAs in existence today; present in almost every region of the globe and involving some of the world's most populous multi-ethnic states (India, Indonesia and Nigeria, to name but three). Moreover, the number of EAAs will almost certainly increase. Ongoing ethnic conflicts in Syria, Ukraine, Mali, and Myanmar are unlikely to be resolved absent some form of EAA – for Kurds in Syria, Russians in Ukraine, and so on, and it is generally accepted that various breakaway regions, such as Abkhazia and South Ossetia (Georgia), and Transnistria (Moldova), are unlikely to rejoin their parent state under any institutional form other than an EAA (see Roeder 2009: 204).

A second point is that the implementation of an EAA is routinely characterized as an institutional “choice.” The implication is that EAAs are but one among many institutional options, and that other institutional arrangements would have succeeded where EAAs failed. EAAs are almost never the first choice. The majority of EAAs in place since 1945 were implemented only after some institutional alternative (usually a unitary state) had failed (Anderson 2014, 2015), and in many, it was “chosen” as a deal to terminate an ethnic conflict. It is not clear why an ethnic minority group struggling for independence would agree to a peace deal that provides them with anything short of territorial autonomy.

The case of Iraq illustrates the limited range of institutional choices available to constitutional engineers in the aftermath of ethnic conflict. During deliberations on Iraq's post-war constitution, there was agreement on the need for a federal system to devolve power away from the center. Academy's prevailing wisdom was that the system should be based on Iraq's existing 18-governorate structure, which would leave the Kurds numerically dominant in three northern governorates and avoid the creation of a single ethnic Kurdish region (Wimmer 2003; Makiya 2003; Dawisha and Dawisha 2003). Logically, creating three Kurdish regions instead of one could activate latent Kurdish cleavages and stimulate intra-ethnic competition, thereby (hopefully) diminishing the prospect of system-threatening ethnic (Kurd versus Arab) clashes.⁴ The decisive problem with this approach was practical. Simply put, it was unacceptable to Kurdish leaders. The Kurdish demand for a single, coherent Kurdistan Region was non-negotiable;⁵ the alternative was for the U.S. to impose a divided region on the Kurds by force, with Kurdish secession the most likely end product.⁶ In the case of Iraq, the starting point for

⁴ Notably, the two main Kurdish parties – the Kurdistan Democratic Party (KDP) and the Patriotic Union of Kurdistan (PUK) had experienced friction since the mid-1970s when the latter broke away from the former. Subsequently, the two fought a low-level civil war in the 1990s that required the U.S. intervention. During the 1990s, both parties were supported by external players, and the KDP joined forces with Saddam Hussein to attack the PUK-held city of Irbil. For details of the intra-Kurdish conflict, see Anderson and Stansfield (2004).

⁵ For an inside take on the Kurdish perspective on the drafting process, see Galbraith (2006). For a detailed analysis of the Kurds' bargaining positions, see O'Leary et al. (2006).

⁶ Much the same dilemma confronted the architects of the Dayton Peace Accord. The use of ethnically-defined political institutions, such as parity power-sharing and EAA adoption has been heavily criticized by scholars (Guss and Siroky 2012; Crampton 1998; Campbell 1999; Golubic, Campbell, and Golubic 1993:209–232), but these were the only institutions on which the three warring parties could minimally agree (see Burg and Shoup 1999, Owen 1995, and Bose 2002). The realistic choice was between ethnically-defined institutions and a continuation of the conflict.

the scholarly debate should have been the inevitability of a Kurdish autonomous region, and that what mattered was how to structure federalism in the rest of country to maximize the probability of success.

If EAAs cannot be ignored, and often cannot be avoided, then it is incumbent on political scientists to focus on generating *actionable* knowledge⁷ about why EAAs succeed or fail. This paper contributes to that task by reconciling the strengths and criticisms of EAAs, offering a theory that pinpoints arrangements that can harvest the stabilizing benefits of EAAs all the while avoiding its pitfalls. An original dataset provides evidence to the efficacy of hypothesized relationships.

Accounting for the Success/failure of EAAs

Explaining variation in the failure/success of EAAs first requires establishing valid criteria for success and failure. For current purposes, we use the criteria established by Roeder (2009), a prominent critic of EAAs. For Roeder, EAAs that suffer secessions or the dissolution of autonomous institutions via recentralization are classified as failures; EAAs that avoid this fate are, by implication, successes.⁸

Though the details vary, most critics of EAAs attribute their failure to two key dynamics. First, the creation of ethically-defined federal subunits or autonomous regions endows ethnic leaders with significant institutional resources (the *means*) that can be mobilized to mount a secessionist challenge to the common state. Subunits in a federation are endowed with the full range of governing institutions capable of articulating demands, and (usually) a clearly defined border. Hence, an ethnic minority with autonomous status “has institutions for challenging state authorities in general and its specific policies and actions in particular” along with institutionalized leadership to unify the population (Cornell 2002: 254).⁹ Second, EAAs arguably increase the *motivation* of ethnically-defined units to separate from the common state. Many critics highlight the tendency of EAAs to sharpen and deepen ethnic identity through, amongst other things, autonomous control over the mass media and education system (Gorenburg: 2001; Cornell 2002). Others,

⁷ This is a term used by Roeder (2009) to refer to those professionals in the field (I/NGO representatives, diplomats and the like) whose job is to help design political institutions in often dangerous circumstances.

⁸ We recognize, of course, that this is not the only way to conceptualize success and failure. Plausibly, an EAA that is implemented as part of a deal to end ethnic conflict is “successful” in so far as it helps reduce subsequent violence, and a “failure” if it does not. For a number of reasons, criteria for success/failure based on the conflict-reduction/prevention potential of EAAs are less relevant for our purposes than Roeder’s criteria. First, at the heart of the critics’ case against “ethnofederalism,” or EAAs more generally, is the argument that ethnic autonomy provides both the institutional means and the motivation for ethnic groups to mount secessionist challenges to the territorial integrity of the common-state (see for example, Roeder 1991, 2007, 2009; Bunce 1999; Jenne 2009; Brubaker 1996; Bunce and Watts 2005; Snyder 2000; Suny 1993; and Slezkine 1994). Indeed, it is precisely the question of whether EAAs are “secession-inducing” or “secession-preventing” that lies at the core of the so-called “paradox of federalism.” Second, while many EAAs are implemented as part of a deal to terminate or pre-empt ethnic violence, others are not. For cases that fall into the former category, such as Indonesia (with Aceh and Papua), or India (with Nagaland), the question of whether autonomy succeeded or failed in reducing violence may be important; but for cases in the latter category, like Kerala and Meghalaya (India), Galicia (Spain), or the Faroe Islands (Denmark), ethnic violence neither preceded nor followed the grant of autonomous status, so this criterion is irrelevant in these cases. Hence, while Roeder’s criteria for success/failure are potentially relevant to all EAAs, criteria based around the conflict-reducing properties of EAAs are not.

⁹ Beyond this, subunits often have power over their own internal security, in the form of police and/or militia forces, control over mass media through which to promote the separatist cause, and many of the superficial, but symbolically important, trappings of statehood, such as a flag, anthems, coat of arms, and mottos.

Bunce and Watts (2005: 136), for example, draw attention to the “plausible impact” of ethnic autonomy on “group isolation, intergroup distrust, and heightened competition among local elites...in search of local issues they can use to mobilize and outflank their competitors.” The peculiar susceptibility of EAAs to secession, then, would appear to result from an interactive combination of enhanced capacity and motivation that is uniquely present in ethnofederations and absent in other system types (Cornell 2002: 252).

In a similar vein, Roeder’s (2009) indictment of “ethnofederalism” and “non-federal states with autonomous ethnic regions” highlights their “unique potential” for “successful secession.” What Roeder usefully adds is a reminder that EEAs are also vulnerable to the opposite form of breakdown – that is, recentralization;¹⁰ this sets up a dangerously volatile bargaining dynamic between EAAs and the common-state government in which political leaders perpetually struggle to find the “hard-to-identify knife-edge equilibrium” of power between center and periphery that would impart stability to the system. Neither “tinkering” with the design of an EAA, nor the broader context within which the relationship is embedded matter much in Roeder’s scheme of things because “institutional instability and the likelihood of nation-state crises” are endogenous to ethnofederal and ethnicity-based autonomy institutions. EAAs are literally doomed to fail.

Though there is an intuitive plausibility and theoretical coherence to the critics’ arguments, they can offer little insight into variation in outcome – that is, why some fail and others succeed. If institutional resources are the key to failure, then logically all EAAs should fail because all EAAs endow ethnic groups with broadly similar institutional resources that enhance their capacity for secession. What varies across cases, apparently, is the degree to which the grant of ethnic autonomy increases the desire or willingness to secede, but the argument itself contains no rationale for why this seems to occur in some cases and not others. Likewise, Roeder may well be correct to assert that EAAs are less equipped than simple federations to sustain a stable power equilibrium between center and periphery, but his argument sheds no light on why some seem better equipped than others.

Elsewhere, a variety of variables that have been linked, either directly or indirectly, to the success of EAAs. Contextual explanations relate to the essential “givens” of a state – ethnic demography, geography, the presence or absence of natural resources and the like. Included here is O’Leary (2001) and McGarry and O’Leary’s (2009) argument that the key to the survival of “pluri-national” federations (those designed to accommodate territorially concentrated ethnic minorities) is the presence of a preponderant “national community.” Simply put, plurinational federations that possess a numerically dominant ethnic majority (a “Staatsvolk”) are more likely to be stable and durable than those without. Beyond this, there is little evidence that factors such as degree of ethnic polarization, or level of ethnic diversity, for example, have any effect on the ethnic conflict or the success of EAAs (Fearon and Laitin 2003; Brancati 2006).¹¹

Straddling the distinction between contextual and institutional explanations are two variables that are frequently claimed to influence the success/failure of EAAs and a variety

¹⁰ This is an important point that is often overlooked in the literature, especially given that there is evidence that groups that have lost autonomy (i.e. suffered recentralization) are more secession-prone than groups that never possessed or currently possess autonomy (Siroky and Cuffe 2015).

¹¹ Beyond ethnic demographics, there are a variety of “givens” – such as the topography of a country (Fearon and Laitin 2003); the overall size and density of a country’s population (Cederman *et al* 2015; Fearon and Laitin 2003; Deiwiks *et al* 2012); the relative size of a region’s population (Sorens 2005); and, the presence of significant natural resources in either the country as a whole (Fearon and Laitin 2003; Bakke and Wibbels 2006), or in a specific ethnic region (Sambanis and Milanovic 2014) that have been shown to affect, variously, civil war onset, demands for ethnic autonomy, and support for secessionist parties.

of related phenomena. First, there appears to be a broad consensus in the literature that democracy plays an important role in sustaining stable, durable EAAs (McGarry and O'Leary 2009; Bermeo 2002; Stepan 1999). As Bermeo (2002: 108) observes, "No violent separatist movement has ever seceded in a federal democracy." Second, there is a growing body of evidence that income inequality may have an important role to play in fueling ethnic conflict and secessionist demands, though the precise nature of the relationship is complex.¹² Some scholars argue that regions with incomes below the national average are most likely to rebel against central authority¹³ (Gurr 1970; Muller and Seligson 1987; Hechter 1975; Horowitz 1985; Bookman 1992), others contend that richer regions have the greater incentive to "go it alone" to avoid subsidizing poorer, less productive regions of the country (Roeder 1991; Hale 2000; Sorens 2005), and still others find that disproportionately rich *and* poor regions are more likely to engage in secessionist conflicts (Deiwiiks *et al* 2012), or ethnonationalist civil wars (Cederman *et al* 2011).

Moving to specific institutional features, there is evidence that both the structure of party systems (Sorens 2005) and the presence of pro-secessionist regional parties (Brancati 2006) can affect the secession propensity of ethnic sub units. Executive power-sharing at the central level is another institutional arrangement that has long been advocated as an effective way to manage intercommunal relations in ethnically divided societies (Lijphart 1977, 1996; Hartzel and Hoddie 2003, 2005). For O'Leary (2001) and McGarry and O'Leary (2009), executive power-sharing as part of a consociational "rescue" package can enhance the stability of pluri-national federations that lack a *Staatsvolk*, while Cederman *et al*'s (2015) analysis of the relationship between autonomy, ethnic inclusion and conflict onset leads them to conclude that "if regional autonomy is to be offered, it should be combined with power sharing within the national executive" (Cederman *et al* 2015: 368).

Collectively, these findings yield important insights into the conditions under which EAAs are more/less likely to succeed, but their practical utility is limited. Most obviously, the "givens" of a case are beyond institutional manipulation; practitioners cannot simply change ethnic demography or create a *Staatsvolk* where none exists. In theory, level of democracy and income distribution are both more malleable, but in practice there are problems associated with both. Democracy is notoriously difficult, perhaps impossible, to engineer institutionally (Fukuyama 1995). In post-conflict environments in particular, the transition process is likely to be long, painful and fragile (Carothers 2002), meaning that an EAA implemented as part of a peace deal may have to survive for extended periods in systems that are less than optimally democratic. Regional income disparities are potentially easier to address. For example, Iraq's 2005 constitution allocates national income across regions on a per capita basis which should, in theory, equalize regional income and avoid extremes of income inequality in either direction. The obvious problem with this is that in so far as this involves transferring wealth from richer to poorer regions, it may dampen secessionist tendencies in poor regions, but will likely exacerbate grievances and fuel secessionist impulses in rich regions.

The main advantage of institutional explanations is that political institutions are inherently more malleable than, say ethnic demography, or level of democracy. The main disadvantage is that there is little in the way of consensus on the beneficial effects of political parties, electoral systems or executive power-sharing on ethnic relations; indeed, critics of

¹² For studies skeptical of the link between income inequality and civil wars, see Collier and Hoeffler (2004) and Fearon and Laitin (2003).

¹³ See Ayres and Saideman (2000) for evidence that ethnic groups that are discriminated against by the center are actually less likely to secede than group that are not the victims of discrimination.

ethnic power sharing are probably as numerous as advocates (see, for example, Aitken 2007; Taylor 1992; Rothchild and Roeder 2005; Horowitz 2002). Further, while power sharing in the central government may be unavoidable in certain contexts (post-war Bosnia, for example; cf. Zdeb 2016) and politically feasible in others - where relevant ethnic groups are roughly equal in size, for example,- it is unrealistic to expect a dominant ethnic majority comprising 90 percent of the population to share executive power with a group that represents the remaining 10 percent. More precisely, it may be reasonable to expect a dominant majority to concede proportional power sharing (i.e. the minority is represented in the executive in proportion to its numerical presence in the population), but not to grant a minority veto power over executive decisions.¹⁴ Of the 113 EAAs analyzed here only a handful involve ethnic units that comprise over 10 percent of the total population. Thus, while executive power sharing may be a valid option in certain specific contexts, it is not especially relevant in many of the cases considered here. With respect to party systems, and regional (secessionist) parties in particular, there are obvious mechanisms that can be employed – bans on regional (ethnic) parties, or a high electoral threshold, for example (or both: cf. Röth et al. 2016) – that would effectively exclude them from political participation, but as Cederman *et al* (2011), Cederman *et al* (2015) and others have shown, politically excluded groups are more likely to engage in violent rebellion against the center than included groups, so the remedy may be worse than the disease.

This leaves a category of explanation that speaks to the structural design of an EAA, such as how the subunit boundary lines are delineated relative to the distribution of ethnic groups (Horowitz 1985), the number and size of the subunits that comprise the system (Watts 2015), and the numerical balance between minority and majority subunits (Christin and Hug 2012). Scholars have long observed, for example, that dyadic, or bicomunal federations have a poor track record of success (Milne 1981; Duchachek 1988; McGarry and O’Leary 2009). Federations composed of two units, each an ethnic homeland, “have proven to be fragile, dysfunctional in operation, and often short-lived” (Bahcheli and Noel 2013: 659). Perhaps the best known examination of the relationship between the structure of an EAA and negative outcomes is Hale’s (2004) analysis of the pernicious consequences of what he terms “core states” (an ethnic homeland for the numerically dominant ethnic group). The key to system survival, by this logic, is to avoid the creation of core states by dividing up the dominant group across multiple federal sub units. There is nothing wrong with these arguments *per se*, but they are limited in reach. They are arguments that, by design, are directly relevant only to system-wide federations and it is hard to see how they can apply to EAAs that combine ethnic autonomy with an otherwise unitary state structure (here termed ethnic federacies).¹⁵ In so far as these arguments highlight the

¹⁴ Gagauzia, for example, contains approximately four percent of Moldova’s population. While proportional power sharing may be a reasonable option and may have some symbolic value, it will not enable Gagauz representatives to wield meaningful power; but it is unrealistic to expect the dominant Moldovan majority to concede real executive power (i.e. a minority veto) to a group that represents four percent of the total population.

¹⁵ Hale (2004) specifically exempts what he terms “partial ethnofederations” (i.e. ethnic federacies) from further scrutiny, arguing that, “the sharp distinction between how autonomous and “regular” territories are governed in partial ethnofederations can be expected to produce different dynamics than in full ethnofederations.” The application of the logic of Hale’s theory to ethnic federacies would undercut its empirical heft. Ethnic federacies provide territorial autonomy to an ethnic minority within an otherwise unitary state dominated by an ethnic majority. Almost by definition then, they involve an ethnic minority entity coexisting with a “core” majority state. The relatively high success rate of ethnic federacies (see Anderson 2014) would undermine Hale’s case if these were to be included.

importance of system structure, however, they provide a useful starting point, and inspiration, for examining in greater detail the relationship between an EAA's structure and its prospects for survival. Understanding how and why variation in the structure of EAAs affects their probability of success is useful, actionable knowledge and raises the possibility that for a given ethnic demography, and at given levels of democracy and income inequality, EAAs can be engineered to maximize their probability of success.

Theory: Preserving the Delicate Balance

EAAs as diverse as the Soviet Union, India, and Finland/Aland Islands all provide autonomy to one or more ethnic groups and in this sense, they share something important in common. They are all structures designed to accommodate the demands of ethnic groups for territorial autonomy; they can, however, be differentiated into three separate categories based on how the remainder of the common state is structured. Full ethnofederations, such as the Soviet Union and Yugoslavia, are system-wide federations that contain ethnic homelands for all of society's major ethnic groups. Partial ethnofederations, like Canada and India, meanwhile, are fully federal systems in which one or more (but not all) ethnic groups enjoy autonomous homeland status. Typically, the dominant ethnic group (Anglophones in Canada, Hindi-speakers in India, and so on) is divided up and parceled out across multiple subunits. Finally, ethnic federacies, such as Gagauzia/Moldova, consist of one or more autonomous ethnic entities attached to an otherwise unitary state. This latter category is often excluded from consideration in analyses of "ethnofederalism" (or ethnic/pluri-national federalism) for the obvious and undeniable reason that ethnic federacies are not fully federalized systems. This exclusion is reasonable if federalism is the specific focus of attention; it is difficult to justify if the focus is on ethnic autonomy as a conflict resolution/prevention mechanism.¹⁶

These three categories of EAA vary in terms of internal structure and this variation, we contend, has important implications for the dynamics of center-periphery bargaining within each system. Critically, it shapes the degree to which the system is "ethnified." The larger the proportion of the population that is housed in ethnic units, the more ethnified the system. The argument advanced here is that the degree to which a system is ethnified matters for the stability of the system. At one end of the spectrum, a minimally ethnified system is prone to failure by recentralization; at the other, a fully ethnified system is vulnerable to failure via secession. At some point between the two extremes, the central government is strong enough to resist secessionist impulses, the component subunits have the strength to defend their autonomy, and the system as a whole approaches equilibrium.

The logic of the argument is straightforward. At a basic level, it is an argument about the importance of numbers. If autonomy is devolved by the center to an ethnic minority group by simple law, it requires only a simple majority (50 percent + one vote) to repeal the law and revoke the group's autonomy. Almost by definition, then, a minority group cannot defend its autonomy against revocation. All EAAs included here are protected by something more than a simple majority vote, however. Most have their autonomy anchored in the common-state constitution, via an organic law (of constitutional

¹⁶ There is no logical reason why accommodating the demands of a minority ethnic group for territorial autonomy should necessitate the adoption of a system-wide federation. For some states, a system-wide federation may be impractical; for others it may be undesirable. Either way, an ethnic federacy is a viable institutional option for a state seeking to accommodate ethnic minority demands and merits consideration as such.

standing), or in some form of treaty. This sets the bar for unilateral revocation higher, in that constitutions can usually only be amended by some form of supermajority vote; all else being equal, the higher the supermajority requirement, the smaller the percentage of the population required to defend the autonomy of an ethnic unit (or units). On the safe assumption that the population of an ethnic unit has a strong interest in defending the status quo, the logical corollary is that the higher the proportion of the population that resides in ethnic units (that is, the more ethnified the system), the less susceptible the system to outright revocation.¹⁷

Up to a point, a more ethnified EAA enhances system stability because it reduces the capacity of the common-state government to eliminate or fatally diminish ethnic autonomy, and, therefore, reduces the fear on the part of ethnic groups that their autonomy will be revoked. Beyond this point, however, the opposite dynamic kicks in; as an EAA becomes more ethnified, the capacity of the common-state government to protect itself against conceding more extreme grants of autonomous power to the ethnic units declines accordingly. In a fully ethnified system, the representatives of ethnic units dominate the central level political institutions and can use these to hollow out the power of the common-state government, and even, *in extremis*, to eliminate the center altogether. To modify the critics' argument, then; in a fully ethnified system, the central government lacks the requisite institutional resources required to preserve the territorial integrity of the state, while in a minimally ethnified EAA an ethnic unit lacks the institutional resources to protect its autonomy; a balance exists somewhere between these two extremes that equates to Roeder's "hard-to-define" equilibrium.

An argument based on institutional resources (the means) alone, however, is logically insufficient to explain success or failure. Also required is an argument that speaks to the desire, or willingness of an ethnic unit to secede (the motivation). Here again it may be useful to think in terms of the need for balance – specifically a balance of loyalties. In an ethnically homogenous, unitary state, such as Japan, the bonds of affective attachment to the common state may vary from person to person for a variety of reasons, but there are no other obvious objects of loyalty (to one's ethnic group, for example, or to a separate level of government) to challenge the affective monopoly of the common state. Where state and nation (ethnicity) coincide, loyalty to the state is synonymous with loyalty to one's ethnic group.

A simple (non-ethnic) federation, meanwhile, has the capacity to create what Levy (2007) terms a "separation of loyalties;" that is, the population of a constituent subunit has an emotional commitment to both the subunit and the common state. In turn, this potential for federalism to divide loyalties between center and periphery creates an important check and balance on the power of the central government, thereby safeguarding liberty throughout the system. The problem with the arrangement of federalism in the U.S., in Levy's view, is that there are only a handful of U.S. states capable of commanding sufficient loyalty to fulfill this bulwark function, and the same is probably true for any simple federation. Levy's key insight is that in federations with one or more ethnic subunits, these "ethnocultural provinces" are capable of commanding more

¹⁷ The same logic applies to the defense of autonomy against incremental recentralization. In a minimally ethnified system, the "non-ethnic" majority will likely dominate the political institutions at the central level that are vital to the preservation of the status quo. Control over a constitutional court, for example, can be used to exploit inevitable ambiguities in the constitution or autonomy law and whittle away autonomy to the point of irrelevance.

intense feelings of popular loyalty, and are, therefore, easier to mobilize in defense of subunit autonomy. In this way, the presence of ethnic subunits stabilizes the system as a whole. The logic of Levy's argument is compelling, but only up to a point. If intense loyalty to one's ethnic unit is widespread, and comes at the expense of loyalty to the common-state then the presence of ethnic units risks destabilizing the system. An ethnic unit endowed with autonomous institutional resources in which the entire population owes intense loyalty exclusively to the unit would seem a prime candidate for secession. More realistically, in any given ethnic unit there is likely to be a portion of the population that is emotionally committed exclusively to the unit, a portion with divided loyalties (primarily to the unit, secondarily to the common state), and a further, smaller, portion with divided loyalties of equal intensity. The balance of loyalties, in other words, likely favors the unit over the common-state. Logically, as the percentage of the total population contained in ethnic units increases, the balance of loyalties shifts further in favor of units over the common state. In a fully ethnified system, popular loyalty to the common-state is at its lowest point, loyalty to the units at its highest, and the system risks secessions and even state collapse. By this logic, fully ethnified systems suffer secessions not just because there is a critical mass of people with the will to secede, but also because too few people have the will to preserve the common-state. A minimally ethnified system faces the inverse of this problem; that is, too few people with the will to protect the autonomy of the ethnic unit. The risk at this end of the spectrum, therefore, is recentralization. Somewhere between these two extremes lies a balance of loyalties that maximizes the survival prospects of an EAA.

Applying the logic of this argument to the three categories of EAA described above is straightforward. Fully ethnofederal systems, are, as the name implies, fully federal and (more or less) fully ethnified. Belgium's federal system, for example, comprises two ethnically-defined subunits that together contain 93 percent of the country's population; it is, as a consequence, 93 percent ethnified. At this end of the spectrum, both the balance of numbers and the balance of loyalties heavily favor the subunits at the expense of the common-state government. The constituent units possess the institutional resources (the means), and command the popular loyalty (the motivation) to secede from the common-state. Failure via secession is the danger.

Ethnic federacies face the opposite problem; recentralization, not secession, is the danger.¹⁸ Autonomous entities that form part of federacy arrangements with an otherwise unitary state invariably constitute a very small proportion of the total population of the common-state. That is, they are minimally ethnified. The Philippines, for example, is 3.5 percent ethnified because its only EAA (Mindanao) constitutes 3.5 percent of the total population. With the balance of numbers and loyalties heavily stacked in favor of the common-state, the main threat for ethnic federacies is failure via recentralization.

Full ethnofederations and ethnic federacies sit at opposite ends of the spectrum; for different reasons, both can reasonably be expected to struggle to maintain an equilibrium between center and periphery. Ranged between the two are partial ethnofederations. In partial ethnofederations, smaller ethnic groups enjoy homeland status, while larger groups

¹⁸ This is not to say that secessions cannot, or have not occurred in ethnic federacies, just that a secession bid is most likely to be caused by a common-state government's efforts to recentralize or revoke the entity's autonomy. The relationships between Sudan and South Sudan, and Eritrea and Ethiopia were both ended with the secession of ethnic units, but the cause of the conflicts that led to secession in both cases was the central governments revocation of autonomy.

(which may, or may not constitute a majority of the total population) are divided up and parceled out among multiple federal subunits, none of which constitutes an ethnic homeland. This gives partial ethnofederations a more equitable balance of numbers and loyalties and should, therefore, enhance their prospects of survival.

What emerges from the forgoing argument, then, are two straightforward hypotheses:

H1: The more ethnified the system, the higher the probability of success up to a point (33 percent); beyond this point, the more ethnified the system, the lower the probability of success.

H2: Partial ethnofederations have a higher probability of success than either ethnic federacies or full ethnofederations.

Data, Methodology, and Model Specification

The universe of cases for analysis includes all EAAs that have existed since 1945. We conceptualize an EAA as a dyadic relationship between each ethnically-defined territorial entity within a system and the common-state government. The Danish government, for example, enjoys distinct and analytically separable relationships with its two entities (the Faeroe Islands and Greenland); each of these can succeed or fail independent of the other, so for current purposes, each can, and should be considered a separate case. This same logic applies to partial and full ethnofederations. Spain's "State of the Autonomies" is often viewed and counted as a single case, but it makes more sense theoretically and practically to consider it seventeen separate dyadic relationships between the center and autonomous units, four of which are EAAs (Catalonia, the Basque Country, Andalucia, and Galicia). Disaggregating systems into their constituent dyadic relationships (common state government with each autonomous ethnic unit) yields an N of 113.¹⁹ The dependent variable (success or failure) is measured as a dichotomy, where each dyad is coded 1 if it survives to the present day (success), and 0 if failed at some point between 1945 and the present, either through secession or recentralization.²⁰ The main independent variable, System Structure, is operationalized in two distinct, but related measures. The first of these, Power Distribution, is a continuous level variable that captures the degree to which a system is ethnified; that is, the total percentage of the population that is housed in ethnic units. An important question at this point is whether to count the whole population of an ethnic unit toward this total (total population), or whether to count just the percentage of the population that comprises the relevant ethnic group (ethnic population). This question arises because, with the possible exception of Gagauzia, ethnic units are never 100 percent ethnically homogenous. Quebec, for example, constitutes 23 percent of Canada's population, but Francophones comprise only about 80 percent of this total. For theoretical, methodological, and practical reasons we use the cumulative *total* population of ethnic units to code the power distribution variable. Theoretically, our argument is about the importance of power balance between center and periphery and the political clout that subunits can bring to the table is more a function of total population (along with other factors, such as income, presence of vital natural resources and so on), than of ethnic population. Methodologically, there is no reason *a priori* to assume that coding the

¹⁹ See Appendix I for a list of included cases, and Appendix II for a list of excluded cases along with a brief explanation of their exclusion.

²⁰ This operationalization is taken from Roeder (2009), a prominent critic of ethnic autonomy.

variable according to total rather than ethnic population will affect the statistical relationships among variables. The likely result of using ethnic population would be to reduce scores across the board, that is, across all categories of EAA. From a practical perspective, there are several cases for which recent and reliable data on subunit ethnic demographics is simply not available. In Belgium, for example, the exact percentage of Dutch-speakers in Flanders and French speakers in Wallonia cannot be determined because no language census has been held in the country since 1947.²¹ Despite these limitations, the possibility that coding the variable according to total rather than ethnic population could systematically impact the pattern of results cannot be dismissed out of hand. Accordingly, we re-coded the power distribution variable based on ethnic population, using official census data where available, and expert estimates in other cases. The two measures (ethnic and total population) are highly correlated at .97, suggesting that the overall pattern of results would not change significantly regardless of which measure is used.²²

We hypothesize a parabolic relationship between the degree to which a system is ethnified and the probability of its success. Specifically, the probability of success increases as the degree to which a system is ethnified increases from zero to a high of thirty-three percent, then decreases thereafter.²³

The second measure of System Structure is categorical and consists of two dichotomous operationalizations. Full ethnofederations (FEF, coded 1), are systems in which all of the federal subunits are, within reason, considered ethnic homelands. Ethnic federacies (EthnFcy, also coded 1) are systems in which ethnic autonomy for a minority group is combined with a unitary structure for the rest of the state. The baseline category, partial ethnofederations, are fully federal systems in which one or more (but not all) ethnic groups enjoys homeland status. Critically, at least one major ethnic group (which may or not constitute a majority of the population as a whole) is denied homeland status in a partial ethnofederation. We expect partial ethnofederations to provide a more stable balance of numbers and loyalties than either of the other two categories and this should be reflected in a higher rate of success.

There is a close conceptual affinity between these two measures of system structure but there is also an important distinction between the two. At one end of the spectrum (moving from partial to full ethnofederation, and vice versa), there is a tight correlation between the two measures. Canada, for example, is a partial ethnofederation that is ethnified at 23 percent (Quebec's share of the population); moving to a full ethnofederation would require creating a single "Anglo" subunit out of the remaining nine provinces, which would automatically increase the degree to which Canada is ethnified to 100 percent. In other words, the act of transforming a system from a partial to full ethnofederation (or vice versa) causes an increase (or decrease) in the degree to which the system is ethnified. The only difference between the two measures at this end of the

²¹ Other important cases where precise and recent data on subunit ethnic demographics are either unreliable or impossible to obtain include Iraq, Bosnia, and Nigeria.

²² We confirmed this by re-running the basic continuous-level model using the ethnic population variable (see Table S1, online Appendix for results).

²³ Theoretically, a system ethnified at, or about thirty-three percent should have the institutional resources to protect against central government recentralization because all EAAs require supermajorities to change the system. Although this figure is somewhat arbitrary, the pattern of results did not change significantly within the 25–40 percent range.

spectrum is that the continuous level measure can capture within-category variation that the categorical measure obviously cannot.

The same is not true at the opposite end of the spectrum. To illustrate with a simple example, the Spanish system is ethnified at 44 percent (the combined populations of Catalonia, Galicia, the Basque Country and Andalucia). Moving from an ethnic federacy (the rest of Spain stays unitary) to a partial ethnofederation (the rest of Spain is divided into multiple subunits in a fully federalized system) does not change the degree to which the system is ethnified (it remains at 44 percent), but it does move Spain from one category to another. This discrepancy arises because the continuous level variable varies is based on the percentage of the total population housed in ethnic homelands but it is insensitive to how the rest of the state is organized. Meanwhile, the categorical difference between an ethnic federacy and a partial ethnofederation is defined by how the rest of the state is structured and does not vary on the basis of how ethnified the system is as a whole. Therefore, while the two measures are closely related conceptually, each captures something the other does not. For this reason we specify three models, two with the measures introduced separately, and the third, a “full” model that includes both.

Alongside the main independent variables, we introduce a number of controls. In keeping with the literature, we control for level of democracy with the variable DEMO, operationalized as the average Polity IV score for an EAA over the lifetime of its existence. We expect a positive relationship between level of democracy and EAA success; that is, the higher the level of democracy, the greater the probability of success. Another factor hypothesized to influence the likelihood of subunit secession is the relative wealth of the unit. The direction of the relationship is ambiguous, however. An ethnic subunit that is significantly richer than the national average may resent having its wealth used (or misused) to subsidize less prosperous or productive regions of the country. All else being equal, a rich subunit's chances of success when going it alone are better than a poor subunit's. On the other hand, an ethnic subunit that is poor relative to other units may harbor grievances that its relative poverty is the product of systematic, state-sanctioned, ethnic discrimination and the resentment this generates may increase support for separation. The empirical evidence on this is mixed. We use two measures to control for relative wealth; the first, Wealth Ratio (WealthRt), is operationalized as the GDP per capita of the subunit as a proportion of the GDP per capita of the country as a whole. Unfortunately, no single source of data exists that provides historical and current GDP data at both the national and subunit levels. As a consequence, we mined data from a variety of sources (see Appendix IV for details). While the use of multiple sources is not ideal,²⁴ it should be noted that the variable is operationalized as a proportional relationship (GDP/capita of a subunit as to national GDP/capita), so any variation in how GDP is measured and even basic currency units across sources only matter to the extent that a source intentionally overstates (or understates) GDP at one level over another. Data

²⁴ Though not ideal, it is fairly standard in the relevant literature to use multiple sources for GDP data, especially at the subunit level (see for example, Bakke and Wibbels 2006: 44–45). Cederman *et al* (2011) and Deiwiks *et al* (2012) use the G-Econ dataset (Nordhaus 2006) a geographically disaggregated dataset of economic activity to estimate ethnic group/regional economic data. Although useful as a source of GDP data at the subunit level, this dataset is not without problems. As Cederman *et al* (2011: 483–484) acknowledge, “the quality of data varies considerable across countries,” and further, that “in some countries the official data may be of such poor quality that the variance is suppressed and accuracies of survey reports may be questionable.” This is not a criticism of the G-Econ dataset, merely an observation that obtaining accurate subunit GDP data is a challenge for all researchers.

was drawn from sources that we assume to be reliable (the UN, the EU, respective governments, and the Economist Intelligence Unit). EAAs for which data were unavailable from the same source at both national and subunit level were dropped from the analysis (see Appendix II for a list of excluded cases). A second, dichotomous measure (Rich Unit) is included to control for extremes of wealth differential and is coded 1 if the subunit in question has a GDP per capita of over three times the national average and zero in all other cases. A final variable, CONFLICT, is included to control for possible effects of prior conflict on the success of an EAA. The variable is dichotomous and coded 1 for cases where the implementation of an EAA was preceded by conflict between the common-state government and the ethnic group in question and zero for all others. Intuitively, one would expect prior conflict to make sustaining a stable equilibrium between the center and the ethnic unit more difficult, though the empirical evidence on this is mixed (Hale 2000; Smith 2013).

Results

The results of the first model support the hypothesis of a parabolic relationship between the degree to which a system is ethnified and its probability of success. All else being equal, an EAA's survival prospects increase as the system becomes more ethnified up to 33 percent; beyond this point, an increase in ethnification is associated with a decrease in the probability of survival. The results of the second equation indicate that the way an EAA is structured internally also matters for its survival prospects. The two dummies representing full ethnofederations and ethnic federacies are both statistically significant at the 0.05 level and both coefficients are negative, indicating that the survival prospects of full ethnofederations and ethnic federacies are significantly lower than for the baseline category (partial ethnofederations). The results of the full model, which includes both variants of the main independent variable, yield two significant insights. First, both dummies and the continuous level variable retain statistical significance (albeit at a lower level for the latter), which would tend to confirm that each captures something important that the other does not. The inclusion of both, therefore, provides a more complete representation of the theoretical argument than the inclusion of each alone. Second, the results clearly indicate that even after controlling for the degree to which a system is ethnified, level of democracy, and income distribution, partial ethnofederations are significantly more likely to succeed than either of the other two categories. This is important theoretically and prescriptively (Table 1).

The key difference between an ethnic federacy and a partial ethnofederation (other than the fact that the former are generally less ethnified than the latter), is structural. Both systems accommodate ethnic minority groups, but in an ethnic federacy the rest of the state retains its unitary structure; in a partial ethnofederation, the rest of the state is carved up into multiple subunits in a fully federal system. In practice this means that ethnic minorities are accommodated in homeland subunits, while a numerically dominant ethnic group/s is divided into multiple subunits, none of which is a homeland. The results of the full model indicate that this difference between how the rest of the state is structured matters for the survival of the system. Theoretically, this is not difficult to understand. There is a wealth of evidence from cases as diverse as Spain, Nigeria, Canada, and India that the act of creating new sub state entities can either reinforce existing identities, or, indeed, help forge entirely new identities where none previously existed. For example, the creation of Spain's system of autonomous communities (ACs) provided

Table 1: Logit Models²⁵

	Continuous	Dummy	Full
Power Distribution.	−0.001*** (0.0003)		−0.0001* (0.0005)
Full Ethno Federation		−6.35*** (1.81)	−6.15** (2.64)
Ethno Federacy		−5.41** (2.20)	−7.92** (3.76)
Democratic Environ.	0.43** (0.19)	0.89*** (0.29)	0.83*** (0.31)
Wealth Ratio	1.03 (0.89)	2.28* (1.22)	2.47* (1.27)
RichUnit	−4.69** (2.36)	−8.81** (3.86)	−11.76** (5.00)
Conflict	−0.92 (1.24)	0.48 (1.53)	0.84 (1.76)
(Intercept)	2.02 (1.23)	2.48* (1.41)	5.63* (3.13)

***p < 0.01, **p < 0.05, *p < 0.1

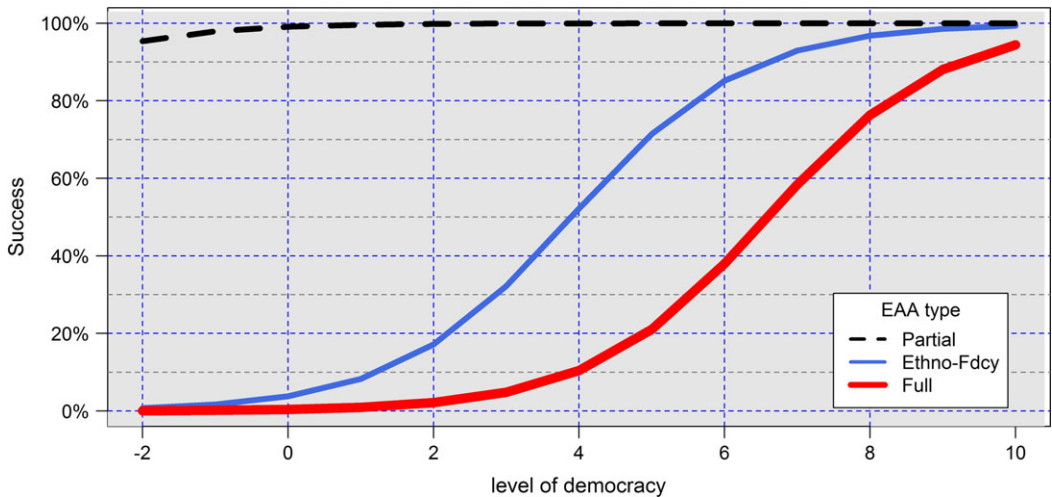
autonomy to historically distinct regions but also allowed ACs to form from any province or group of provinces with “historical regional unity” or “common historical, cultural and economic characteristics.” The result was a system of 17 ACs, many of which had clear, historical antecedents, but some of which had no discernable historical identities to speak of. By 2007, large majorities in all 17 ACs were reporting some measure of shared (Spanish/AC) identity, with 56 percent of the total population identifying equally with both levels of government (Llera 2009: 313). Surprisingly, the AC with the highest percentage of equal identifiers (82 percent) was La Rioja, an AC with no credible claim to prior historical identity (Beramendi and Maiz 2004: 145).

Evidence from other partial ethnofederations, such as Canada, Nigeria and India, points in a similar direction; that is, the act of dividing up a dominant ethnic group or groups into multiple “non-ethnic” federal subunits can create/reactivate territorially-defined sub-ethnic identities that are capable of commanding the loyalty of inhabitants.²⁶ More specifically, the prevailing pattern is one of shared, or divided loyalties among the inhabitants of non-ethnic units; that is, loyalty to the common state and loyalty to the subunit coexist with more or less equal intensity. This has important implications for the stability of the system as a whole, because it furnishes the system with a reservoir of loyalty to the common-state that does not come at the expense of loyalty to the subunit. Hence, non-ethnic units in a partial ethnofederation constitute a critical mass of citizens

²⁵ We also ran a series of additional model specifications to address issues of potential concern. See online appendix for results of these along with a brief discussion of the rationale for conducting each.

²⁶ For evidence of how dividing up large ethnic groups in Nigeria helped activate sub-ethnic cleavages, see, Horowitz (1985: 605); Diamond (1982: 631), and Omotoso (2009: 108). In India, the main pressure for the creation of new states has come from sub-ethnic groups within otherwise ethnically (linguistically) homogenous states. Three of the four most recent state creations (Chhattisgarh, Uttaranchal and Jharkhand), were Hindi-speaking majority states carved out of Hindi-speaking majority states (see Mawdsley 1996, 1997, 1999; Tillian 2013; and Swenden 2016). For details on the evolution and strength of provincial identity in Canada, see, Elkins and Simeon (1980); Cameron (2009); and Watts (1987).

Figure 1: Democracy, Structure and Probability of Success [Colour figure can be viewed at wileyonlinelibrary.com]



Note: see appendix V for confidence intervals around each of the three probability lines.

with affective attachments to both levels of government, and a vested interest, presumably, in preserving a stable equilibrium between the two.

Prescriptively, the results of the full equation have important real world implications. The degree to which a system is ethnified is neither fixed in stone, nor endlessly malleable. Finland, for example, is ethnified at 0.5 percent (the Åland Islands' share of the total population). The survival prospects of Finland's EAA would improve by raising this level closer to 33 percent, but short of moving to a full ethnofederation, or importing new ethnic groups, nothing can be done to increase this number. However, these results indicate that for any given level of ethnification, a system can increase its probability of survival by moving from one category (full ethnofederation or ethnic federacy) to another (partial ethnofederation). Thus, Finland's system can be engineered to maximize its survival prospects by dividing up the "non-ethnic" part of the state into multiple subunits in a fully federal system.

In the case of Finland, there is probably not much to be gained by redesigning the system because the other key take away from these results is that level of democracy has a clear and consistent positive impact on the survival prospects of EAAs. Figure 1 depicts graphically the relationship between system structure and probability of success at varying levels of democracy.

At high levels of democracy, the effects of system structure on success are diminished; that is, highly democratic EAAs are likely to succeed regardless of how they are internally structured. Having said this, even at the highest possible level of democracy (10 on the Polity IV scale), full ethnofederations are less likely to survive than the other two structures.²⁷ At this end of the democracy scale, therefore, the results of this study have

²⁷ This should give pause for thought to advocates of a three-unit (Kurd/Sunni/Shi'a) ethnofederation for Iraq. This option was famously championed by Senator/Vice-President Joe Biden and was also supported by prominent voices in the think-tank community (see, for example, Joseph and O'Hanlon 2007). Based on the evidence presented here, Iraq's adoption of a full ethnofederation would be a recipe for failure, even at levels of democracy that Iraq is almost certain not to achieve.

limited prescriptive utility. However, most of the world's political systems, especially those that are emerging from civil conflict, are located far from the maximum. Critically, the current range of ethnic conflicts for which some form of EAA will likely be required as part of any peace deal, such as Ukraine (with ethnic Russians), Mali (Tuaregs) and Myanmar (a variety of ethnic groups), all involve states that fall some way short of being perfectly democratic, and it is precisely at lower levels of democracy that the structure of an EAA is most critical for the system's survival. Partial ethnofederations have a greater probability of success than either of the other two structures *at any level of democracy*, other than the maximum, and this difference is only magnified the further down the democracy scale we descend.

The control variables merit discussion. The wealth ratio and rich unit variables generate interesting results. The wealth ratio variable produces a positive and statistically significant coefficient, while the rich unit variable produces a negative one. This means that subunits that are better off than the national average hold a greater probability of success. Should the levels of wealth reach beyond three times the national average, that subunit's probability of success becomes compromised. These findings corroborate arguments to the complexity of wealth when it comes to subunit success. Too little, as well as too much wealth hurt the chances of success. *WealthRt* suggests that subunits that are poor are in greater risk of failure. Relational differences in wealth can fuel inter-ethnic resentment by highlighting differences between ethnicities and consequently push subunits to secede. *Rich Unit* suggests that subunits that are rich by threefold the national average are in even greater risk. We speculate that this greater risk is also a product of resentment, but of a different kind. Rich subunits may resent having to "carry" poorer subunits, feeling held back by their counterpart's economic underperformance. From the perspective of resource availability, the latter makes sense, as rich units would be even richer if not held back by poorer subunits. That same perspective in the former case, however, does not make sense because having less than another ethnic group says nothing about how much better a group can do on its own, even if it does make them feel inferior. While intriguing, the evidence produced by these controls does not permit such differentiation, allowing only for speculation. Future research should address this relationship with appropriate theory and data.

Results for the conflict variable are puzzling. Not only is the variable not significant, but the coefficients can be either positive or negative depending on the operationalization of the main variables. It is possible that the common wisdom that previous conflict is a catalyst of future ones holds but the variable failed to reach significant results due to some statistical anomaly. That possibility, however, doesn't account for the negative coefficient from the continuous model. One can argue that the high costs of ethnic conflict can be an eye opener to ethnic cries, thus actually reducing further demands for secession. Considering that no coefficient reached significance, it can only be speculated. Just like in the case of wealth, the data used here cannot address these claims, leaving it for future research to illuminate.

Conclusion

Ethnic autonomy is not a relevant option for alleviating ethnic tensions in all contexts. Where ethnic groups are geographically intermingled, as in the Central African Republic, or Rwanda, it is difficult to see how territorial autonomy has any role to play in managing inter-ethnic relations; but many conflicts involve a struggle for autonomy or independence between a territorially concentrated ethnic minority and a majority-dominated state. In

these cases, an EAA is more than just a relevant option, it may be the only relevant option that can bring the war to an end. The conflict in Syria is a case in point. Despite many unknowns, if Syria is to remain with its territorial integrity intact, some form of EAA will almost certainly be required. Syrian Kurds have already drafted a constitution modeled on Kurdish Iraqi's territorial autonomy, which is a non-negotiable requirement for their continued participation in the Syrian state. Even if Western scholars caution against it, this dialogue will be irrelevant to events unfolding on Syrian ground. Whichever political force emerges in post-war Damascus will face a simple choice between granting Kurds autonomy or using military force to retake territory controlled by them. This paper argues it is possible to engage in a rational debate about how to structure Syria's EAA to maximize its probability of survival. Would an ethnic Kurdish autonomous unit be more likely to succeed if accompanied by, say, an Alawite subunit?²⁸ Should the rest of Syria be organized as a unitary state, or should a fully federalized system be favored? Post-war Syria will be fragile and flawed and contentious, which is exactly the context in which the structural design of an EAA will matter most for its survival.

Prior empirical evidence indicates that EAAs are plausible institutional remedies for ethnically divided societies. Contrary to the arguments of critics, the large majority of EAAs implemented since 1945 have suffered neither recentralization nor secession, and where EAAs have been implemented as part of a deal to end ethnic conflict, most have succeeded in either eliminating or reducing violence to manageable levels. Some EAAs fail, as is to be expected, but many more succeed. The evidence presented here suggests that this variation in outcome is, in part, attributable to variation in levels of democracy. It is also systematically related to the degree to which a system is ethnified, and, critically, to differences in how EAAs are internally structured. Democracy in post-conflict environments is notoriously difficult to engineer; the structure of an EAA is inherently more malleable.

Realistically, the design of an EAA is but one small part of the equation in the solution ethnic conflict and to have any positive impact on inter-ethnic relations requires that political leaders on all sides display a willingness to share power and compromise. An EAA, regardless of how it is structured, is not a panacea and can only work if there exists the political will to make it work; as Hammel (1993: 40) astutely observes, "the essence of good political institutions is that they make political idiocy more difficult (but not impossible) to achieve."

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²⁸ Based on the current situation on the ground in Syria, it is actually possible that three autonomous Kurdish "cantons," rather than a single Kurdish region, might be the product of any peace deal.

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Appendix I: Case List

Russia	Belgium	USSR	Nigeria
Adygea (s)	Wallonia (s)	Armenia	Adamawa
Altai (s)	Flanders (s)	Azerbaijan	Akwa Ibom
Bashkortostan (s)	Denmark	Belarus	Bayelsa
Buryatia (s)	Faroe Islands (s)	Georgia	Benue
Chechnya (s)	Greenland (s)	Kazakhstan	Borno
Chuvashia (s)	Switzerland	Kyrgyzstan	Cross River
Dagestan (s)	Ticino (s)	Latvia	Delta
Ingushetia (s)	Jura (s)	Lithuania	Edo
Kabardino-Balkaria (s)	Philippines	Turkmenistan	Kogi
Kalmykia (s)	Mindanao (s)	Estonia	Niger
Karachay-Cher (s)	Iraq	Ukraine	Plateau
Khakassia (s)	Kurdistan (s)	Uzbekistan	Rivers
Komi (s)	Tanzania	Russian Fed	Taraba
Mari El (s)	Zanzibar (s)	Moldova	Yobe
Mordovia (s)	South Africa	Tajikistan	Bosnia & Herz.
North Ossetia	KwaZulu Natal(s)	Yugoslavia	Rep. Srpska (s)
Sakha (s)	India	Montenegro	Fed. Of BiH (s)
Tatarstan (s)	Andhra Pradesh(s)	Serbia	Indonesia
Tuva (s)	Assam (s)	Slovenia	Papua
Spain	Goa (s)	Croatia	Aceh
Catalonia (s)	Gujarat (s)	Bosnia & Herz.	Finland
Basque Country(s)	Maharashtra (s)	Macedonia	Alands (s)
Galicia (s)	Jammu &	Czechoslovakia	Serbia and Montenegro
	Kashmir (s)		
Andalucia (s)	Karnataka (s)	Czech Rep.	Serbia

Appendix I: Continued

Italy	Kerala (s)	Slovakia	Montenegro
Valle D'Aosta (s)	Mizoram (s)	Pakistan	Georgia
Trentino	Nagaland (s)	Bangladesh (until 1971)	Adjara (s)
Alto Adige (s)	Orissa (s)	Punjab (s)	Sudan
Friuli Venezia (s)	Punjab (s)	Sind (s)	South Sudan
Sicily (s)	Meghalaya (s)	Balochistan (s)	Malaysia
Sardinia (s)	Sikkim (s)	Moldova	Singapore
Ukraine	Tamil Nadu (s)	Gagauzia (s)	Canada
Crimea	West Bengal (s)	United Kingdom	Quebec (s)
	Manipur (s)	Scotland	Nanuvut (s)
	Tripura (s)	Wales	

Cases marked (s) denote success.

Appendix II: Excluded Cases

The following cases were not included in the statistical analyses, either due to lack of data availability, or because they do not fit the working definition of an EAA. Given that decisions about which cases to exclude and include can potentially affect the pattern of results obtained, it is important to point out that all of the excluded cases are either ethnic federacies or full ethnofederations, and most would be coded as failures were they to be included (Ethiopia's five ethnic regions are the exceptions). Their inclusion, therefore, would likely reinforce the basic finding that partial ethnofederations are more likely to succeed than the other two designs.

Moreover, because the notion of ethnicity is fluid, a group that a reader recognizes as ethnic might not be recognized by another reader. As such, inclusion of cases is done without prejudice to universal recognition of group ethnicity. E.g. Andalusian Spaniards enjoy a version of EAA despite claims, often from Basques or Catalonians, that they are not truly ethnically distinct from Spanish identity. While that claim might be true, the fact that they do enjoy the EAA merits inclusion in the data. The case selection process took its cues from the central governments entering into these agreements. If the Spanish government perceives Andalusians as ethnic enough to deserve some type of EAA, so do the authors.

Cases	Reason for Exclusion
Papua New Guinea (Bougainville); Nicaragua (Atlantic Regions North and South); Ethiopia (Afar, Amhara, Oromia, Somali, Tigray); Nigeria: 1960–67 (Northern, Western Eastern [Mid-Western] Regions); Cameroon 1960. Ethiopia/Eritrea (1952–62); Sudan (South Sudan) (1972–83)	Data on GDP unavailable at sub unit level

Appendix II: Continued

Cases	Reason for Exclusion
Georgia (Abkhazia, South Ossetia); Azerbaijan (Nagorno-Karabakh)	Abkhazia (Georgia), South Ossetia (Georgia) and Nagorno Karabakh (Azerbaijan) are excluded from the list of EAAs because they are second order autonomies that experienced autonomous status within their respective Republics during Soviet times, but had their autonomy revoked (or unrecognized) by the Republic either prior to, or at the same time as the Republic seceded from the Soviet Union. Subsequently, all three have functioned as unrecognized states beyond the control of their respective central governments. In other words, there has never been a functioning EAA between Georgia and its two entities, or between Azerbaijan and Nagorno-Karabakh.
Serbia (Kosovo, Vojvodina)	Both Kosovo and Vojvodina were second order autonomous entities during Yugoslavia's existence (they were autonomous units within the autonomous republic of Serbia). Both had their autonomy revoked by Serbia in 1989–1990, prior to the break-up of Yugoslavia. Following the 1999 Kosovo conflict, Serbia never regained control over the province and in 2006, Kosovo achieved partially recognized independence. Vojvodina had its autonomy restored over the 2006–2009 period (see Tolvaiss: 2012) but was excluded from the analysis because of a fit with the working definition of EAA. It is home to over 20 ethnicities, the largest of which [Hungarians] comprises only approximately 13 percent of the population. (see, “2011 Census of Population, Households and Dwellings in the Republic of Serbia,” available at: http://media.popis2011.stat.rs/2012/Nacionalna%20pripadnost-Ethnicity.pdf .) The balance of power argument espoused here rests on the notion that a minority will not support having its own autonomy revoked. That assumption may not hold in this case, since non-Hungarian ethnic minorities could support revocation if they felt Hungarian ethnics are the only ones benefiting from autonomy and the autonomy they enjoy is not real.

Appendix II: Continued

Cases	Reason for Exclusion
Burma/Myanmar	Burma is excluded because the terms of the 1948 Constitution, which would have created a form of federacy arrangement between Burma Proper and several ethnic regions, were never implemented due to the outbreak of conflict the same year. Although the main source of conflict was a communist insurgency against the government, three of Burma's ethnic groups, the Karen, Karenni and Arakan, were also involved. The country's 2008 Constitution is currently undergoing a process of revision with respect to relations between the center and periphery and the final contours of the system are yet to be determined (see Brand: 2014, https://www.academia.edu/6338368/Towards_genuine_federalism_-_Myanmar_s_inexorable_path_towards_constitutional_devolution_and_decentralized_governance).

Appendix III: Data Sources for Variables

Variable	Operationalization	Source
Success	dichotomous [dummy] variable scoring zero if EAA failed, either through the secession of the sub unit or through the formal revocation of autonomy by the center, or one if it was successful (the sub unit has not seceded and autonomy has not been formally revoked)	coded by the authors
FEF	dichotomous [dummy] variable scoring one if the EAA is a full ethnofederation, zero otherwise	coded by the authors
EthnFcy	dichotomous [dummy] variable scoring one if the EAA is an ethnic federacy, zero otherwise	coded by the authors
PowerDist	Continuous level variable that calculates the distance between the observed and optimal proportion of the population housed in ethnic units. The value is squared to ensure that the measure is indifferent to values moving away from the optimal point in either direction.	coded by authors

Appendix III: Continued

Variable	Operationalization	Source
Democracy	Average Polity VI score from the time of EAA adoption until 2013 (or until year of failure)	data taken from Polity IV database; calculated by authors
WealthRT	Ratio of sub unit GDP per capita to GDP per capita of country as a whole, logged.	data taken from a variety of sources (see Appendix IV)
Rich Unit	dichotomous [dummy] variable scoring one if the ethnic subunit's GDP/per capita is at least three times that of the national average.	coded by authors
Conflict	Dichotomous [dummy] variable coded one if a sub unit was involved in conflict with the central government prior to the grant of autonomy. Conflict defined as those cases coded from "local rebellions" [3] through "civil war" [7] on Minorities at Risk (MAR) "Reb" (rebellion) variable for at least one year during the 20 years preceding the grant on autonomy.	coding based on MAR dataset (http://www.cidcm.umd.edu/mar/mar_data.asp#quantitativemar)

Appendix IV: Sources of Data for Relative Wealth (GDP/capita of sub unit as a proportion of GDP/capita of System).

System	Data Source
For GDP/capita at system- and sub unit- levels for all failed EAAs and for Tanzania (Zanzibar)	United Nations Statistics Division, <i>Per capita GDP at current prices</i> (available at http://data.un.org/Data.aspx?q=gdp+per+capita&d=SNAAMA&f=grID%3a101%3bcurrID%3aUSD%3bpcFlag%3a1)
For European Systems	European Commission of the European Union, Eurostat, <i>GDP per Capita in the EU in 2011</i> (available at http://ec.europa.eu/eurostat/documents/2995521/6839731/1-21052015-AP-EN.pdf/c3f5f43b-397c-40fd-a0a4-7e68e3bea8cd)
Switzerland	Confederation of Switzerland, Swiss Statistics, <i>Gross Domestic Product by Canton</i> (available at http://www.bfs.admin.ch/bfs/portal/en/index/themen/04/02/05.html)
South Africa	Government of South Africa, Statistics South Africa Statistical Release P0441: Gross Domestic Product: Annual Estimates 2002–2011 (available at http://www.statssa.gov.za/publications/P0441/P04413rdQuarter2012.pdf)

Appendix IV: Continued

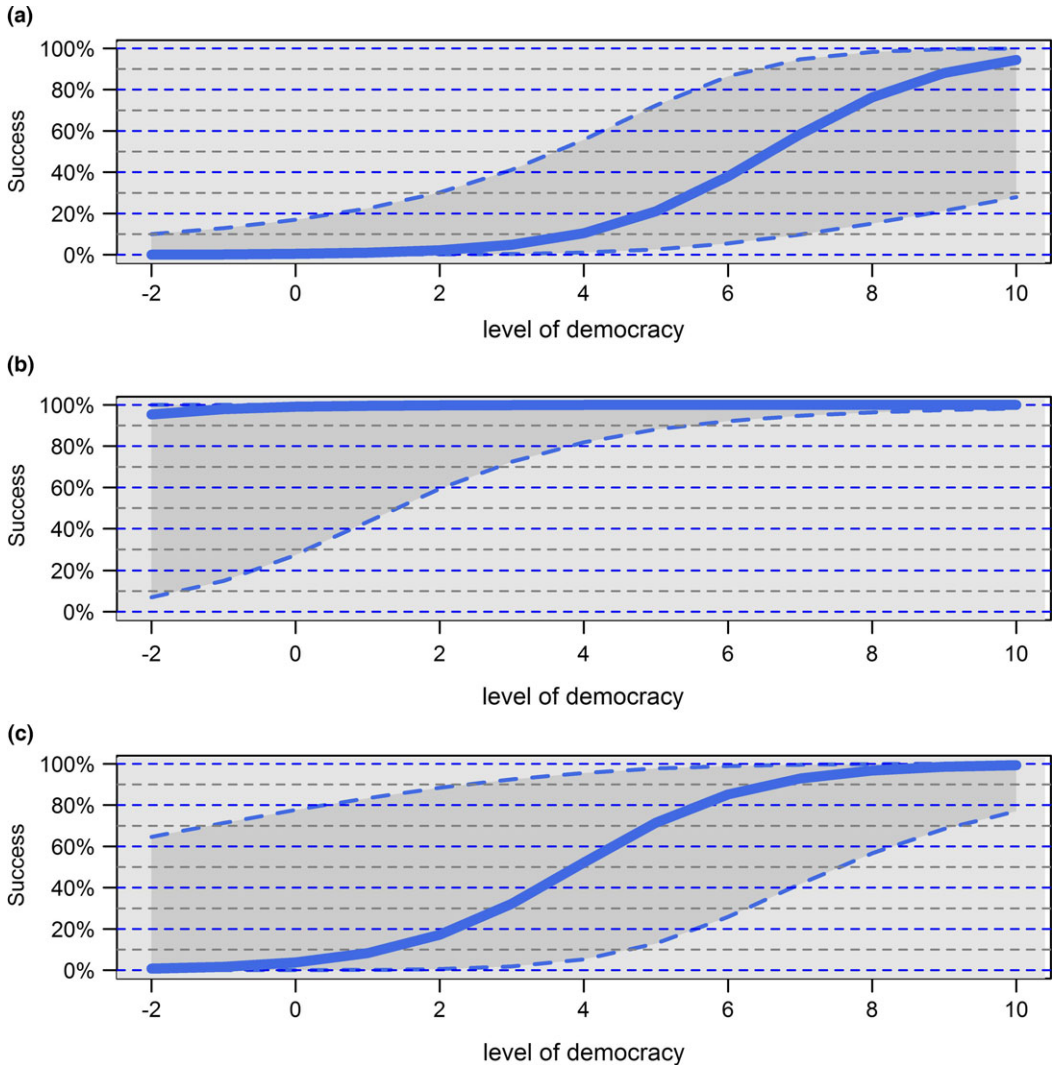
System	Data Source
Canada	Government of Canada, <i>Statistics Canada</i> . Gross domestic product, expenditure-based, by province and territory (available at: http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/econ15-eng.htm)
Moldova (Gagauzia)	National Bureau of Statistics of the Republic of Moldova, <i>Statistica Moldovei</i> , Monthly average earnings by regions and groups of activities, 2014–2015 (available at http://statbank.statistica.md/pxweb/Dialog/varval.asp?ma=SAL0152_en_t&ti=Monthly+average+earnings+by+regions+and+groups+of+activities%2C+2014-2015&path=../Database/EN/TER/03%20SAL/&lang=3)
Nigeria, Indonesia (Aceh, Papua), Philippines (Mindanao)	Economist Intelligence Unit (C-GIDD), Canback database (available at https://www.cgidd.com/Geography-Selection.aspx)
India	Government of India, Ministry of Statistics & Programme Implementation, <i>State-wise Per Capita Income and Gross Domestic Product at current prices</i> (available at http://pib.nic.in/archieve/others/2014/aug/d2014070801.pdf)
Iraq (Kurdistan)	Data from Rezvani, David A., (2014). <i>Surpassing the Sovereign State: The Wealth, Self-Rule, and Security Advantages of Partially Independent Territories</i> . Oxford: Oxford University Press: 290.
Georgia (Adjara)	National Statistics Office of Georgia (GeoStat), <i>Distribution of Gross Value Added of Georgia by regions at current prices</i> (available at http://www.geostat.ge/index.php?action=page&p_id=119&lang=eng)
Russia	United Nations Development Program, National Human Development Report in the Russian Federation 2010: 138–139 (available at http://www.undp.ru/nhdr2010/National_Human_Development_Report_in_the_RF_2010_ENG.pdf)

Appendix V: Confidence Interval Bans

In non-linear models, confidence intervals are sensitive to the inversion of the link function. This renders them asymmetrical and causes them not to uniformly wrap themselves around the estimates. The same standard error can expand the confidence interval below the estimates all the while shrinking the band above them, and vice versa. Readers are urged not to mistakenly interpret their shape as a gain or loss in precision.

While their shape might suggest otherwise, they are simply an artifact of the position of the estimate within the range of the link function (Figure A1).

Figure A1: Democracy and Probability of Success for (a) Full Ethno Federations (b) Partial Ethno Federations (c) Ethno Federacies [Colour figure can be viewed at wileyonlinelibrary.com]



Supporting Information

Additional Supporting Information may be found in the online version of this article:

Data S1. Supplementary information.

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