The Myth of Consociationalism? Conflict Reduction in Divided Societies

by Joel Selway and Kharis Templeman[1]

Abstract

Although advocates of consociationalism have asserted that there is solid empirical evidence supporting the use of power-sharing institutions in divided societies, previous quantitative tests of these theories suffer from serious data limitations and fail to take into account the conditional nature of institutional effects. We test the effect of (1) proportional representation over majoritarian electoral rules, (2) parliamentary over presidential or semi-presidential arrangements, and (3) a federal over a unitary system in reducing conflict in a cross-country dataset of 71 countries representing 78 regimes. Our results undercut much of the previous empirical support for consociationalist arrangements in divided societies. Using a multiplicative specification, we find that the combination of PR, parliamentarism, and federalism appears to exacerbate political violence when ethnic fractionalization is high.

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1. Introduction

Indonesia is puzzling for those who study institutional design in divided societies. It is a diverse and fragmented country, with numerous ethnic groups separated into non-contiguous regions of a massive archipelago. If ethnic diversity were not enough to doom the country to political instability, it also has an increasing secular-Islamic divide, a long and bloody history of authoritarian rule, ambivalence toward political involvement by past military elites, and a complex and volatile multi-party system. Yet Indonesia has nonetheless been a shining beacon of democracy in Southeast Asia over the last decade, in contrast to the continuing political turmoil and curtailed freedoms of its neighbors (Sullivan 2008; Mietzner 2010).

Indonesia's strong presidential and unitary system only deepens the mystery of its success. Presidentialism has been much-maligned in the institutionalist literature since Juan Linz's (1990) famous broadside against it twenty years ago, and it has few defenders among those who recommend institutions for divided societies. Moreover, presidentialism together with multipartism (Indonesia had over nine effective parties running in 2009) is supposed to be an especially "difficult combination" in new democracies (Mainwaring 1993). Indonesia has also remained a unitary system, despite its vast geographic size and a diverse population that boasts over 700 different languages. In contrast, decentralized federal systems have been strongly recommended for countries such as Indonesia so as to prevent political competition from having "nationally comprehensive consequences", or to

check one ethnic group from subordinating others beneath it (Cohen 1997). In light of these arguments, how is it that the world's most populous Muslim country has managed to establish a stable democracy and avoid all-out ethnic and sectarian warfare?

The findings that we report in this paper suggest a contrarian explanation: it is *because* of presidentialism, not in spite of it, that Indonesian democracy has succeeded. We also find little support that proportional representation electoral rules are most suitable for divided societies; indeed, proportional representation is *positively* associated with violence in these societies. We find that strong federalism is more likely to reduce conflict than unitary systems, but only in the most democratic regimes. Overall, our results suggest that much of the conventional wisdom about institutional consequences in divided societies is wrong: the combination of parliamentarism, proportional representation, and federalism appears to *worsen* prospects for political violence in the most diverse countries.

Our findings directly challenge some of the key institutional recommendations of consociationalist theory, and especially those of Arend Lijphart (Lijphart 1968, 1977a, 1977b, 1981, 1985, 1994, 1996, 2001, 2002, 2004; Daalder 1974; Hauf 1980, 1983; Milne 1981; Jarstad 2001; O'Leary and McGarry 2004). The institutional arrangements advocated by members of the "consociationalist school" have taken a number of forms but share a core package of features: pure parliamentarism rather than presidentialism or semi-presidentialism, electoral systems that employ proportional representation (PR) in large districts over more

majoritarian ones, and meaningful federalism that devolves considerable resources and autonomy to constituent sub-units of the larger state. Lijphart has claimed (2004) that there is a "strong scholarly consensus" in favor of these institutions for divided societies, and that there is "solid empirical evidence" of their superior efficacy in mitigating ethnic divisions (2004: 107). We think both of these claims are overstated. There is a spirited and vocal group of scholars who find fault with one or more elements of the consociationalist vision on solid theoretical grounds (Barry 1975; Horowitz 1985, 1991, 1993, 2002, 2004; Reilly 2001, 2002; Snyder 2000; Woodward 1999; Chandra 2001, 2004, 2005; Selway 2009). And despite assertions to the contrary, the empirical evidence that parliamentarism, PR, and federalism perform better than alternatives in a wide array of social settings has been very far from "solid" to this point (Clark et al. 2009: 737-738).

Our challenge to consociationalism in this paper is an empirical one. We present evidence showing that the core institutional arrangements are not superior to the alternatives in the most severely divided societies, and that some consociationalist choices are associated with more political violence in such societies. The analysis on which these results rest is, we argue, an improvement over previous large-N empirical work on this topic. First and foremost, past research has usually analyzed the effect of institutions on political instability across all democracies (Powell 1982; Krain 1998) or all regimes, authoritarian as well as democratic (Reynal-Querol 2002). In fact, however, Lijphart and others make a conditional argument: the proper question to be addressed is whether

consociationalist arrangements appear to perform consistently better than the alternatives *in more divided societies.* We therefore estimate a multiplicative model specification rather than an additive one. In addition, we take advantage of the large increase in democratic regimes in the 1980s and 1990s to greatly expand the number of observations, and we exclude regimes that are not democratic. Finally, we employ in the analysis a wide variety of distinct measures of the outcome of interest—political violence—as well as alternative measures of the main institutional variables. Thus, in contrast to previous research, our central findings appear quite robust to decisions about measures and case selection.

The paper proceeds as follows. First, we review the fundamental tenets of consociationalism along with some of the counterarguments concerning how the three core institutional choices should affect the incidence of political violence in divided societies. We then discuss previous empirical findings, which are far from conclusive. From this review, we generate several testable hypotheses and discuss model specification issues. The next section describes our data sources and presents our findings from a large set of country-regimes for the period 1972 to 2003. We conclude with a discussion of the broader implications of our findings for the consociationalist remedy for ethnic divisions and more broadly for the practice of institutional engineering.

2. Literature Review

2.1. The Consociationalist Logic

There is wide agreement among scholars and practitioners that societies with deep ethnic divides are more prone to political violence than in those without serious identity cleavages. For several reasons, political competition that centers on conflicts over identity is thought to be more difficult than other types of conflict to resolve through simple majority rule. Voting that is motivated by ethnic concerns, for instance, tends to result in "elections by census" in which each group's share of the electorate is closely reflected in the votes going to each political party (Horowitz 1985: 326). This outcome is especially dangerous in societies where one ethnic group is a majority of the population, because it raises the possibility that minorities will be permanently excluded from office (Chandra and Boulet 2005). In addition, when ethnicity or another ascriptive identity is highly salient, the threat of co-ethnic challengers can lead party leaders to avoid cross-group electoral appeals. Parties are then driven to engage in "ethnic-outbidding" and act to advance mutually exclusive group claims to power (Rabushka and Shesple 1972). Ethnically heterogeneous societies may also be especially problematic for the provision of public goods, as elected officials seek to funnel state resources more narrowly to co-ethnics rather than produce broad but non-excludable benefits (Easterly and Levine 1997).

Thus, ethnically heterogeneous societies pose more serious ex ante challenges to the establishment and maintenance of political stability than do homogeneous ones: there is a greater danger that social divisions will spin out of control and rip the state apart. Some scholars (e.g. Snyder 2000) have gone as far as to argue that

the peaceful practice of democracy is simply not possible in many new, ethnically-divided countries, and that autocratic regimes that maintain political stability are preferable to democracies which do not restrict competition or civil liberties but experience wide-spread ethnic conflict and political violence.

Advocates of consociationalism are more optimistic about the prospects for preventing political violence through democratic means in divided societies. They begin from the premise that institutions matter for politics: that the formal rules of the state, constitutional and otherwise, both structure political competition and have fundamental, generalizable, long-run consequences for a wide range of political outcomes. That in turn raises the alluring possibility that institutions can be "engineered" to make certain political outcomes more likely. In other words, the likelihood that ethnic divisions will erupt into political violence can be systematically reduced through the conscious design of the institutions that structure politics in those countries.

But what does the ideal package of institutions look like? The consociationalist answer to this question is based on the belief that deep social divisions within a country's population are best addressed through two practices: (1) *power-sharing*, or including representatives of all relevant social groups in the executive decision-making process, and (2) *group autonomy*, or allowing all relevant groups considerable say over the affairs of their own communities with minimal interference from the agents of the central state. Lijphart (2004) has laid out a succinct set of recommendations constitution-writers should follow to fulfill these

two prescriptions.   At its core, these recommendations involve three fundamental choices: about electoral system, regime type, and the degree of authority centralized in the national government.

On electoral system, Lijphart recommends closed-list proportional representation (PR) with large district magnitudes, and he actively discourages the use of any system with majoritarian effects, including plurality rule or alternative vote in single-member districts. In the consociationalist view, one of the most likely causes of political violence is the consistent exclusion from power of any distinct group in society. From this perspective, PR is clearly preferable over alternatives because it best ensures that each group will gain political representation that approximates its share of the electorate. The more majoritarian the electoral system, the greater the potential disproportionality in the conversion of votes into seats, and the "less accurate and secure" minority representation will be (100).

On regime type, Lijphart advocates a parliamentary executive over either a presidential or semi-presidential one. The chief reason is the greater potential for executive power-sharing in a parliamentary system. Presidentialism in this view has several major drawbacks. Unlike the collegial nature of decision-making in parliamentary cabinets, executive power in presidential systems ultimately rests solely in the hands of the president. Presidential power is therefore not easily or credibly shared among several groups. Presidential elections are also necessarily majoritarian, with the same problems for the representation of diverse views. In addition, because of their separate origins in different constituencies, the executive

and legislative branches in presidential systems can be prone to stalemate—a fact made worse by the typically rigid terms of office in such systems. In contrast, the executive in parliamentary systems is drawn from and serves at the confidence of the legislature, so similar stalemates are less likely. And when prime ministers or cabinets become unpopular or their policies are opposed by the legislature, the ability to call early elections allows such crises to be resolved through straightforward constitutional means (101-104). For all of these reasons, the consociationalist school has consistently favored parliamentarism over presidential or semi-presidential systems in divided societies.

Finally, advocates of consociationalism also view federalism quite positively, although here the recommendations are less concrete. Federalism is desirable mainly because it provides a means to give broad autonomy to individual groups and reduce the number and scope of issues that must be resolved at the central government level. Lijphart also advocates providing non-territorial autonomy as in, for instance, state funding of different religious groups to teach primary education (105).

2.2. Counter-arguments

Although Lijphart (2004: 100) has asserted that there is a "consensus" in the scholarly community in favor of consociationalism in divided societies, we see outstanding questions in the literature about the relative efficacy of all three central recommendations of the consociationalist vision: PR over any majoritarian

electoral system, parliamentarism over presidentialism or semi-presidentialism, and strong federalism over weak federal or unitary systems.

First, the view that electoral institutions should be designed to promote accurate representation of diverse views above all other considerations is not universally supported. There are several well-known drawbacks to the closed-list, large-magnitude proportional representation system favored by the consociationalist school. One is that PR systems can facilitate the presence of extremist parties—for instance, anti-system parties that seek to overthrow the regime, or single-issue parties that take rigid ideological stances far from the median voter in the electorate (Powell 1982: 92-96). There has long been broad scholarly agreement that extremist parties, if present for an extended period of time in a country, threaten political stability (e.g. Duverger 1954: 419-20; Huntington 1968: 412; Sartori 1976: 140). In one of the earliest statistical investigations of the question, Powell (1982) found both that there was a strong positive association between political party extremism and the incidence of riots, and that extremist parties were particularly likely to win seats in countries that were both socially heterogeneous and employ PR electoral rules—precisely the combination that the consociationalist vision advocates.[2]

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[2] Powell finds a weaker but still positive association between extremist parties and political deaths. He also finds a negative association between PR and both riots and political deaths, which he apparently estimated without controlling for the greater presence of extremist parties. In other words, the PR effect appears to swamp the extremist party effect in his analysis. As we argue below, this result is likely a consequence of the inclusion of many quite ethnically homogenous countries in the analysis—Powell's results indicate that ethnic heterogeneity is associated with higher vote share for extremist parties. Because Powell does not estimate the conditional effect of PR on ethnic heterogeneity, he does not in fact test whether PR is positively or negatively associated with riots and political deaths *in ethnically heterogeneous societies*, but rather on *all* societies.

In addition, there is good reason to believe that PR increases the incentives for parties to pursue centrifugal campaign strategies—that is, the optimal strategy is to court voters whose views are relatively extreme rather than moderate (Cox 1990). Parties that represent only one ethnic group not only can gain representation in parliament in proportion to the size of that group, they also have clear incentives to play up ethnicity and harden ethnic divisions at election time rather than to build cross-ethnic coalitions. For this reason, scholars such as Donald Horowitz (1991) and Benjamin Reilly (2001) have argued instead for the use in divided societies of electoral systems with centripetal effects, such as the alternative vote (AV) in single-member districts. Such systems have the advantage, in this view, of rewarding candidates who take moderate positions and can attract support from a wide range of the electorate over extremists whose support may be deep but narrow.

Finally, PR along with power-sharing requirements can also lead to government paralysis in the face of difficult issues by increasing the need to include many parties in the governing coalition. There is a built-in bias in favor of the status quo in such systems: in general, the larger the number of parties with distinct policy positions in the coalition, the more difficult it will be to pass new legislation (Tsebelis 2002). Yet effective government is frequently the overriding concern in new, fragile democracies emerging from long periods of deep-seated social conflicts, such as in Iraq, Liberia, Ethiopia, Congo, Angola, or Mozambique (Norris 2008: 111). One wonders whether creating institutions that privilege the

status quo is really a wise thing to do in countries as poor and crisis-prone as these, which have long suffered from a weak and ineffectual central state.

The scholarly "consensus" in favor of parliamentary regimes over presidential ones in divided societies is not actually so clear-cut, either (cf. Norris 2008: 132-33). For instance, the variation of institutional powers among presidential regimes appears to be at least as important to the prospects for political stability as the difference between presidential and parliamentary regimes (Shugart and Carey 1992). Electoral laws that increase the likelihood of a pro-presidential majority in the legislature (Jones 1995) and that promote two-partism over multipartism (Mainwaring 1993) contribute greatly to the stability of presidential regimes. And presidentialism combined with more decentralized policy-making appears to be no less prone to political violence than parliamentary systems (Cheibub and Limongi 2002). All these findings point in the same direction: that it is not presidentialism per se that creates problems for democracy, but presidentialism *in combination with something else*. In the right institutional combination, presidentialism appears to be just as viable a form of government as parliamentarism.

Moreover, presidentialism arguably has a couple of advantages over parliamentarism that are especially relevant in divided societies. When political parties are weak and the party system unstable, as is often true in new democracies, for instance, the president may be the only elected official with a truly national constituency. In such cases, presidents have much stronger incentives than their legislative counterparts to promote broad-based public goods. Given the consistent

finding that ethnic heterogeneity is associated with lower levels of public goods provision (e.g. Alesina et al. 2003), this potential benefit of presidentialism should not be overlooked. Moreover, presidentialism provides some insurance against weak and fragmented party systems, often themselves a consequence of PR electoral rules, that contribute to immobilism and government instability in parliamentary regimes (Clark et al. 2009: 744-746).

Finally, the argument for federal arrangements in ethnically divided societies is by no means settled, either. Federalism is one of the key components of Lijphart's institutional recommendations: he has argued, for instance, that in divided societies with geographically concentrated ethnic groups, "a federal system is undoubtedly an excellent way to provide autonomy for these groups" (2004: 104). Behind this assertion, however, is the assumption that group autonomy will improve the chances for democratic consolidation of the larger state—a claim that is far from self-evident. Several studies have suggested that adopting federal arrangements in these circumstances might actually increase secessionist tendencies, by reinforcing territorially-based ethnic identities (Hardgrave 1994; Kymlicka 1998). By creating subunits around regionally-concentrated groups, federal arrangements give both legitimacy to their claims to be distinct and privileged in the larger state, and resources to act on aspirations for greater autonomy (Roeder 1991; Bunce 1999; Leff 1999; Hechter 2000; Snyder 2000; cf. Clark et al. 2009: 738-742). Decentralizing authority to sub-national jurisdictions

may also drive the rise of regional parties, whose presence in the party system appears to be strongly linked to the start of secessionist conflicts (Brancati 2006).

In addition, even if one accepts the potential benefits of federalism in the abstract, much depends on the details of the federal arrangements. Lijphart suggests separating ethnic groups into distinct units as much as possible, so that the constituent states of the federation are quite homogenous even if the country as a whole is not (2004: 105). But there are good reasons to be wary of even this prescription. For one, drawing state borders this way prioritizes and reinforces ethnic identities at the expense of others. By shifting considerable autonomy to the state level, federal arrangements also make redressing the inequalities that often drive such inter-regional tensions more difficult. Finally, there are not obvious benefits of strong federal arrangements along ethnic lines if ethnic groups are geographically dispersed—that is, if citizens typically live in ethnically mixed communities. In such circumstances, the federal prescription may end up sparking or accelerating a kind of Balkan-style conflict (the partition of Indian states also comes to mind) with groups making competing claims over the same land and seeking to redraw borders to include clusters of co-ethnics, through violent means if necessary (Hardgrave 1994, Woodward 1999).

2.3. Empirical Findings

In addition to the series of theoretical objections to the consociationalist logic described above, the empirical evidence either for or against the efficacy of any

particular institutional arrangement in divided societies is inconsistent and quite limited as well. Studies that systematically test the causal claims of consociationalism—that the combination of PR rules, parliamentarism, and federalism will reduce or eliminate ethnic-based conflict in heterogeneous societies—are few and far between.[3] Much more commonly, scholars present evidence from a handful of their favorite cases that support their preferred view.

The earliest attempt at systematic evaluation of consociationalist claims was by Powell (1982), who attempted to measure correlations between institutional types and political violence, measured as riots and violent political deaths per year per country. Using observations from a set of 29 democracies from 1958-1976, Powell found a small but consistent positive relationship between political deaths and both presidentialism and majoritarian electoral rules, although only presidentialism was significant at the 10% level, and only for the decade 1958-67. His results for riots did not show a clear pattern one way or the other, and he did not attempt to measure the association between federalism and political violence. Powell summarized his findings cautiously, asserting that "representational constitutions" tend to perform better in maintaining political order, but that "most of the advantages of the representational systems…seem to be artifacts of the location of these systems in more economically developed societies" (71).

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[3] One of the few is Lijphart's (1999) own influential cross-national study. He finds "few statistically significant correlations" between institutional type and a democratic regime's macroeconomic performance or its ability to control violence—which he then turns into an argument *for* consociationalist arrangements, since "the conventional wisdom is clearly wrong in claiming that majoritarian regimes are the better governors" (1999: 274).

Although ground-breaking in both its ambition and technique, Powell's study suffered from a number of drawbacks. For one, Powell used ordinary least squares (OLS) to identify the relationships between counts of riots and deaths and various explanatory variables. Krain (1998) argues that a more appropriate way to deal with such data is through the use of event counts models, and he replicates Powell's study using the latter type of model. His results are largely similar: like Powell, he finds a significant positive association between presidential regimes and both political riots and deaths. However, he finds a positive association between majoritarian electoral laws and riots, but no association with political deaths— exactly the opposite of Powell's results. Krain's study suggests that the links between presidentialism and higher numbers of riots and political deaths is robust in Powell's sample, while those between majoritarian rules and both outcomes are much more tenuous.

The inferences drawn by Powell and by Krain's replications are limited by the use of a rather small sample of only 29 countries and a limited time period of at most two decades. At the time Powell conducted his analysis, he identified only 20 countries that had been continuously democratic over the entire period of 1958-1976, with another 9 having suffered strict limits to or the suspension of democracy (1982: 5). Powell's sample is large enough to uncover some meaningful associations between measures, but on the key variables of interest to us—the effects of institutions in divided societies—there are few. The association of presidentialism with greater political violence, for instance, rests on observations of only six

countries, three of which were democratic for only part of the relevant period. In addition, nearly half of the countries in the analysis (14 of 29) were European, raising the possibility that some effects attributed to institutional arrangements were in fact due to region-specific factors. And most importantly, few of these countries featured the kinds of deep ethnic divisions for which consociationalist arrangements are supposed to have the greatest violence-reducing effects.

In the years after Powell's study, the number of democracies in the world dramatically expanded, giving scholars a much larger set of countries and a longer period of observations on which to test his conjectures. As a result, a number of other comparative studies have attempted to test some of the consociationalist claims on a larger and more diverse set of cases. The most consistent finding in these studies is support for the proposition that PR reduces ethnic conflict in divided societies (Cohen 1997; Reynal-Querol 2002; Saideman et al. 2002; Norris 2008). By contrast, the evidence that presidentialism is associated with higher levels of ethnic conflict or that conflict is higher in unitary than federal states is more mixed (*ibid.*).

The methodology of most of these analyses is problematic in some way. For instance, both Cohen and Saideman et al. find that federalism and PR are associated with a lower incidence of rebellion, but are actually positively related to violent protest (although the coefficient estimates are insignificant and small in the latter case). Both, however, use the Minorities at Risk database, which introduces considerable sample bias into the analysis—religious, linguistic, and regional

minorities are systematically excluded if they have been successfully integrated into the larger society (cf. Norris 2008: 41).[4]   Reynal-Querol (2002) avoids this problem by creating her own religious polarization index, but she tests the effects of consociationalist institutions on authoritarian as well as democratic cases. Because the consociationalist argument is centrally about the ability of certain institutional arrangements to prevent political violence *in democracies*, however, including highly repressive authoritarian regimes in the analysis appears inappropriate to us.

By far the most comprehensive and systematic of the empirical work on this question is by Norris (2008), who includes observations from a much broader set of democracies and looks separately at all three institutional choices: PR versus majoritarian, parliamentary versus presidential, and federal versus unitary arrangements. Her analysis also differs from some of the others in the outcome of interest—democracy—rather than narrower measures of political conflict such as riots, political deaths, or outbreaks of rebellion or civil war. She conducts separate analyses using four distinct measures of democracy—what she terms Liberal Democracy (Freedom House), Constitutional Democracy (Polity IV), Participatory Democracy (Vanhanen), and Contested Democracy (Cheibub and Gandhi)—and she finds consistent support for the democracy-enhancing effects of all three consociationalist institutional choices.

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[4] In addition, there are other reasons to be wary of Cohen's results in particular. He appears to use standard OLS when logit seems more appropriate—his main dependent variable is an index from 0-6, and most observations on the DV are 0 (1997: 624-5). He includes no term to capture autocorrelation, although it is probable that minorities experiencing ethnic conflict in year *t* are likely to have a heightened risk of experiencing conflict in year *t+1* as well. Finally, he does not include economic variables as potential controls, nor does he include a variable for presidential versus parliamentary regimes.

Norris' analysis is clearly the widest-reaching and most exhaustive study of the associations between political institutions and democratic stability, and she asserts that her results provide broad support for consociationalist arguments. However, we think her conclusions should be viewed with caution, for two reasons. The first is that the main outcome of interest in her analysis—level of democracy— is rather removed from the claims that consociationalist institutions reduce political violence in divided societies. Measures of political order such as riots and political deaths appear to us to be much more direct implications of the consociationalist argument than measures of political participation, electoral contestation, or protection of civil liberties. Second, and more critically, although Norris controls for how divided a society is using the Alesina et al. (2003) ethnic fractionalization index, her model specification does not allow her to evaluate the precise causal claim of the consociationalist literature. Norris's estimates test only whether there is an independent association of PR, parliamentarism, and federalism with higher levels of democracy, not whether in countries *sharing a similar underlying social structure*, political conflict is systematically more violent under some arrangements than others.

In fact, virtually all the empirical work testing the effects of power-sharing institutions in divided societies suffers from this same fundamental problem: none properly model the *conditional* nature of the consociationalist causal story (Clark et al. 2009: 737). Both Lijphart and critics such as Horowitz have asserted that the violence-reducing effects of institutions depend on the severity of the underlying

social divisions, but none of the existing empirical studies specify models in a way that actually allow tests of this claim. Instead, researchers have only controlled additively, not multiplicatively, for social diversity. Estimating this model specification presumes that the effect of institutions on political outcomes will be constant across all countries, no matter how heterogeneous (Brambor, Clark, and Golder 2006). Yet there is no good reason to assume institutional effects are constant. In fact, quite the opposite: the central claim of the consociationalist school is that these effects are *not* constant, and that the violence-reducing effects of the institutions should be *strongest* in precisely those societies that suffer from the deepest divisions. Thus, the proper model specification to be estimated in these tests is one which interacts social structure with each institutional variable. Only then can we assess whether the data on political violence are broadly consistent with consociationalist arguments.

Put differently, past investigations of institutional effects in divided societies have been much like testing the effects of chemotherapy on the entire American population—not only on cancer patients but on healthy individuals as well! Showing that a certain chemotherapy treatment worsens health *on average* does not demonstrate that it should not be used on the subset of the population with malignancies. In the same way, showing a net positive association between majoritarianism, presidentialism, and unitarism and political violence does not demonstrate that these institutional forms are inappropriate for the subset of countries with highly divided societies. By not conditioning institutional variables

on the ethnic structure of society, researchers in effect have performed the analysis on the wrong sets of cases. It is with this concern in mind that we turn to the model specification and description of our data.

3. Model Specification and Data Description

3.1. Hypotheses

We are interested in the effect of political institutions (electoral system, regime type, and degree of centralization) on political violence as it varies across countries with different levels of ethnic diversity. Following past studies, we proxy for social divisions by using measures of ethnic fractionalization. Our hypotheses are as follows:

H1: The marginal effect of **PR** on political violence is *negative* when ethnic fractionalization is high, but has no effect when ethnic fractionalization is low.

H2: The marginal effect of **presidentialism** on political violence is *positive* when ethnic fractionalization is high, but has no effect when ethnic fractionalization is low.

H3: The marginal effect of **federalism** on political violence is *negative* when ethnic fractionalization is high, but has no effect when ethnic fractionalization is low.

H4: The marginal effect of **consociationalism** on political violence is *negative* when ethnic fractionalization is high, but has no effect when ethnic fractionalization is low.

Note that all four hypotheses are about the effect of institutions conditioned on the level of ethnic fractionalization: we expect institutional differences to have the strongest violence-reducing effects in extremely ethnically heterogeneous societies, while we expect the weakest effects in homogenous societies.

3.2. Model Specification

The fully-specified model for H1-H3 above is as follows:

$$PV = ß_0 + ß_1 EF + ß_2 PR + ß_3 Pres + ß_4 Fed + ß_5 EF \times PR + ß_6 EF \times Pres +$$
$$ß_7 EF \times Fed + \mathbf{X} + \in \qquad (2)$$

We estimate a simpler model for H4:

$$PV = ß_0 + ß_1\ EF + ß_2\ Consoc + ß_3\ EF \times Consoc + \mathbf{X} + \in \qquad (3)$$

Note in Model (2) that there is no interaction term between any of the institutions. While some scholars have argued against the exclusion of these constituent terms without strong theoretical priors, their inclusion makes the interpretation vastly more complex (Brambor, Clark and Golder 2006). We do concede, however, that their exclusion introduces bias into the model. We know from the party systems literature, for example, that the effects of electoral rules are conditioned by the

presence of presidentialism (Neto and Cox 1997; Golder 2006; Hicken 2009), and we have good reason to think they would differ in federal and non-federal systems, too (Chhibber and Kollman 2004; Brancati 2006). Nevertheless, while future research might usefully theorize and empirically test the interactions among the institutional variables, our current analysis still provides a substantial enrichment over previous studies.

The marginal effect of each institutional variable on political violence takes the following form:

$$\frac{\partial Ethnic}{\partial PR} \; \beta_2 + \beta_7 EF + \beta_{10} EIC + \beta_{13} EF \times EIC \tag{4}$$

$$\frac{\partial Ethnic}{\partial Pres} \beta_3 + \beta_8 EF + \beta_{11} EIC + \beta_{14} EF \times EIC \tag{5}$$

$$\frac{\partial Ethnic}{\partial Fed} \beta_4 + \beta_9 EF + \beta_{12} EIC + \beta_{15} EF \times EIC \tag{6}$$

$$\frac{\partial Ethnic}{\partial Consoc} \beta_2 + \beta_3 EF \tag{7}$$

4.2 Data and Variables Description

We test our model on a sample of 106 country-regimes in 100 countries between 1972-2003, where a regime is defined as a change in any of the institutional variables. Most of our data were drawn from Pippa Norris's Democracy Time-Series Cross-national Dataset, which includes observations on a wide array of institutional, political, and economic variables for these countries. Because we do

not expect the political institutions to take immediate effect, we dropped all country-regimes that appeared in the dataset for less than four consecutive years. To identify democracies, we use the aggregate 20-point POLITY scale from the Polity IV dataset, where 10 is the most democratic and -10 is the least democratic. We include all country-regime observations for which POLITY ≥ 0; our findings are also robust to a higher threshold of POLITY ≥ 5.

We test the same two measures for political violence as Powell (1982) and Krain (1998). First, we analyze the number of riots, defined as any violent demonstration or clash of more than 100 citizens involving the use of physical force (*Riots*). *Riots* is drawn from the Arthur Banks Cross-National Time-Series Database and is a count variable ranging from 0-26. Second, we consider the number of political deaths, taken from the Major Episodes of Political Violence (*POLDEATH*). This variable is composed of scaled death magnitudes from revolutionary wars, ethnic wars, politicides and genocides. It is thus not an event count variable. In addition, we run the analysis on several other measures of political violence. Three are from the UCDP/PRIO Armed Conflict Dataset: internal armed conflict, defined as a civil war between the state and a group within its territory, without external intervention (*internal*); minor conflicts numbering no more than 999 deaths per year regardless of external intervention (*Minor*); and major conflict numbering 1000 or greater deaths per year, again regardless of external intervention (*Major*). We also employ four additional alternative measures of political violence from the Banks Dataset: revolts, defined as any illegal

or forced change in the top governmental elite, any attempt at such a change, or any successful or unsuccessful armed rebellion whose aim is independence from the central government (*Revol*); guerrilla warfare, defined as any armed activity, sabotage, or bombings carried on by independent bands of citizens or irregular forces and aimed at the overthrow of the present regime (*Guerrila*); government crises, defined as any rapidly developing situation that threatens to bring the downfall of the present regime, excluding revolts (*Crisis*); and finally, a conflict index composed of the former three variables, plus weighted measures of assassinations, government purges, coups, strikes and anti-government demonstrations (*Conflict*)[5]. These measures give us a good sense of the effect of different institutional types on various kinds of political conflict, from minor episodes involving a handful of injuries or deaths to major episodes of prolonged and deadly violence.

Our measures of ethnic fractionalization are also taken from various sources for robustness. The results we present in this paper use Fearon's (2003) measure of ethnic fractionalization. However, our findings are robust to the use of another popular measure of ethnic fractionalization, that of Alesina et al (2003).[6]

Our institutional variables come from several sources. Electoral rules are coded by International IDEA (2004) as either PR, which takes the highest value of 3,

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[5] The weighted conflict index is calculated in the following manner: Multiply the value of the number of Assassinations by 24, General Strikes by 43, Guerrilla Warfare by 46, Government Crises by 48, Purges by 86, Riots by 102, Revolutions by 148, Anti-Government Demonstrations by 200. Sum the 8 weighted values and divide by 9. The result is the value (with decimal) stored as the Weighted Conflict Index.

[6] Most marginal effects plots look very similar. There are some changes in statistical significance, but nothing that clearly invalidates the results we present in the next section. These and other robustness checks are included in the supplementary appendix.

majoritarian (1), or combined (2). Combined regimes are varied, but incorporate elements of both majoritarian and PR rules, hence the intermediary coding. For robustness, we estimate the model separately using two different dichotomous variables: the first takes on a value of 1 if the electoral system is pure PR (else 0), and the second takes on a value of 1 if it is a pure majoritarian system (else 0). Our results do not change substantively (and rarely significantly) using either of these variables. Our measure for parliamentarism is taken from the Banks dataset and is binary: 1 for parliamentary regimes, else 0. We code semi-presidential regimes to their nearest variant; the results we report are robust as well to an alternative coding in which all regimes with a directly-elected president are included in the presidential category. Our measure of federalism comes from Watts (1998); we modify it by re-coding all hybrid federations as non-federal. Federal systems are coded as 1, and all else as 0; the results are weaker but in the same substantive direction if hybrid federations are included as federal. Lastly, we conduct a separate test using a variable for the presence of all three consociational institutions in a single country, which we describe later on.

We also control for several variables common in past studies. First, we take the log of a country's population (*logpop*): larger population sizes have been linked with higher odds of political violence. We also take the log of GDP per capita (*loggdp_UN*) as a measure of a country's level of development: the wealthier a country, the lower the likelihood of political violence. Next, we include a measure of democracy (*polity2*) relying on the Polity IV dataset: since higher values indicate

greater openness and institutionalization of elections and more respect for human rights, we expect a negative coefficient on *polity2*. Finally, we include a lag of the dependent variable (*lagpv*), although our results are robust to its exclusion.

4.3 Estimation Strategy

Given that we have several dependent variables, we estimate a number of models. For *Riots*, we begin by following Krain (1998) and estimating a negative binomial event count model. The standard Poisson event count model assumes that episodes of political violence are independent and are equally likely to occur at any point in time (King 1989). With political violence, we think it more likely that the probability of an episode occurring increases after an initial outbreak, following a kind of contagion dynamic (Krain 1998). The chi-square tests on the probability of the alpha term equaling zero, which the standard Poisson model assumes, have p-values less than .05, indicating that the negative binomial model is preferred.

However, the negative binomial model is unable to account for the stationary and/or slow-moving nature of the independent variables: our institutional variables rarely change, and our measure of ethnic fractionalization does not change at all. In addition, then, we estimate a time-series multiple regression with a lagged dependent variable using the fixed-effects with vector decomposition (FEVD) estimator suggested by Plumper and Troeger (2007). Lastly, we compare both negative binomial models and the FEVD model with the standard random effects model. Nearly all of our results are substantively the same regardless of which

estimation strategy we employ. However, we are inclined to think that the FEVD estimates are preferable, since the difference between the negative binomial and random effects models is relatively minor and FEVD is able to adjust for stationary values in some of the independent variables. For *POLDEATH* and *Conflict*, which are not count variables, we estimate using both the random effects and FEVD, again finding very little difference between these results. For the remaining variables, which are all binary (*internal, Minor, Major, Revol, Guerrila, Crisis*), we estimate a time-series logit regression with random effects. We are unable to estimate a fixed effects model given the stationary nature of our measure of ethnic fractionalization, and an equivalent FEVD estimator for binary dependent variables has not yet been developed. Unless otherwise noted, the marginal effects plots we present in the next section are drawn using the FEVD estimations.

5. Results

5.1. Analysis without Interactive Effects

We begin by discussing the results from an additive model using our dataset, which is more comprehensive than most previous studies in the number of years and country coverage. Table 1 presents the results from the random effects, negative binomial and FEVD estimations for both the political deaths and riots dependent variables. Similar to the findings of Powell, Krain, and others, the coefficient on population size is positive and significant while that on country wealth is negative and significant: larger countries experience more political deaths

and riots, while wealthier countries experience fewer, all else equal. The level of democracy as measured by the *polity2* variable is not significant in the majority of the models. Nevertheless, the sign is negative in five of the six, and in the FEVD estimations this relationship is highly significant, so there is some support here for the expectation that more democratic countries experience fewer deaths and riots. Finally, ethnic fractionalization (EF) is significant and has the expected sign in four of the six models. In particular, a higher EF score appears to be consistently associated with more political deaths. The effect on riots is less clear, with EF negative (though statistically insignificant) in two of the three models.

It is harder to draw consistent inferences from the institutional variable estimates. On the effects of proportional representation electoral rules, only in the FEVD estimation for riots (Model 6) is PR negative and significant. This result is consistent with past findings that proportional electoral rules are associated with lower levels of political violence, although the lack of any clear relationship between PR and political deaths is rather surprising. The estimates of parliamentarism's effects paint a similarly muddled picture. Only two of the estimates are significant, one (Model 2) for political deaths and one (Model 4) for riots. Furthermore, they have the opposite signs: parliamentary regimes experience fewer political deaths but more riots, all else equal. Federalism appears to have the same contradictory relationship with political deaths and riots: the FEVD estimates show deaths (Model 3) to be less common in federal regimes, but riots (Model 6) to be more common.

	DV = Political Deaths			DV = Riots		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Re	Neg binomial	FEVD	Re	Neg binomial	FEVD
Logpop	0.106***	2.689***	0.348***	0.343***	0.108	-1.438***
	(0.0224)	(0.623)	(0.0270)	(0.0646)	(0.205)	(0.148)
logGDP_UN	-0.0529*	-0.144	-0.00833	-0.133	-0.463***	-0.0794
	(0.0289)	(0.325)	(0.0279)	(0.0831)	(0.174)	(0.0815)
Polity2	-0.00688	-0.0459	-0.0214***	0.00218	-0.0318	-0.0682***
	(0.00663)	(0.0384)	(0.00644)	(0.0192)	(0.0381)	(0.0196)
Lagged DV	0.789***	0.294***	0.608***	0.534***	0.0986***	0.409***
	(0.0161)	(0.0319)	(0.0197)	(0.0185)	(0.0102)	(0.0204)
PR	0.00595	-0.175	0.0205	0.0262	-0.0999	-0.0985**
	(0.0141)	(0.141)	(0.0136)	(0.0411)	(0.109)	(0.0414)
EF	0.104*	4.038**	0.296***	0.4768***	-0.358	-0.212
	(0.0602)	(1.826)	(0.0592)	(0.175)	(0.430)	(0.179)
Parliamentarism	0.00828	-1.159**	0.0283	0.239***	-0.154	0.0726
	(0.0274)	(0.478)	(0.0262)	(0.0800)	(0.184)	(0.0793)
Federalism	-0.0476	-1.955	-0.229***	-0.0203	0.414	1.315***
	(0.0316)	(1.002)	0.0327	(0.0922)	(0.258)	(0.135)
Eta			1.00***			1.00***
			(0.0673)			(0.0748)
Constant	-0.165	-9.077***	-1.173***	-0.864	0.246	6.732***
	(0.139)	(3.094)	(0.149)	(0.405)	(1.18)	(0.693)
Observations	1490	1490	1490	1905	1905	1905
Number of CCode2	95	95		101	101	
R-squared	0.6857	.	0.729	0.378	.	0.434

Table 1. Effect of Consociationalism on Number of Political Deaths and Riots
Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Overall, the additive model gives us conflicting results, both in comparison with previous empirical work and between these two measures of political violence. Were we to stop here, however, these data appear to provide at least weak support for the consociationalist model: of the significant estimates, parliamentarism and federalism are associated with fewer political deaths (although more riots), and PR is associated with fewer riots.

5.2. The Marginal Effect of PR

We turn now to the multiplicative models, which capture the differing effect of political institutions across the range of values of ethnic fractionalization. Following recent convention, we proceed directly to analyzing the marginal effects plots for each political institution (Brambor, Clark, and Golder 2006). We report the marginal effects calculated from the FEVD estimations here; the alternative estimations and tables of coefficients can be found in the appendix.

Figure 2 shows the marginal effect of PR on the number of political deaths. The solid line represents the marginal effect and the two dashed lines represent the 95% confidence intervals. Statistical significance is indicated by *both* dashed lines falling either above or below the zero line. Thus, in Figure 2, we see that the entire solid line falls above the axis, indicating that PR increases the number of political deaths. This positive effect, however, is not statistically significant at high values of ethnic fractionalization (the horizontal axis), because around the right section of the solid line the upper confidence interval falls above the zero line while the lower falls below. As we move to the left of the plot, the marginal effect becomes positive and statistically significant. At about EF = 0.6 and lower, PR is positively associated with political violence. Note, however, that the magnitude of this effect is not large. Political deaths is a scaled variable ranging from 0 (no political deaths) in the large majority of observations to a high of 10.5 (the most political deaths) in Sri Lanka in 1989. Thus, the substantive effect of switching to PR, at its maximum, is around 1 on this scale. Figure 2 does not offer support for hypothesis 1 (H1),

which stated that PR should decrease political violence in ethnically diverse societies. In fact, we find no significant effect of PR in the most diverse societies, and somewhat surprisingly, a small but positive effect in the least diverse societies.

Figure 2. The Marginal Effect of Proportional Representation on Political Deaths across Levels of Ethnic Fractionalization

Figure 3 again shows the marginal effect of PR, this time on the number of riots. This result, too, is at odds with consociationalist theory. When ethnic fractionalization is very high, the marginal effect of PR is again positive but insignificant, though at medium-high levels, PR has a negative and insignificant effect. In contrast, PR has the opposite effect on the number of riots when ethnic fractionalization is low: PR is negatively associated with riots. So here we have the interesting finding that PR does indeed appear to reduce riots—but only in homogeneous countries! By testing for marginal effects, we have uncovered a

possible reason why previous researchers have found evidence in favor of PR: most of their cases were relatively homogeneous countries.

Figure 3. The Marginal Effect of PR on the Number of Riots across Levels of Ethnic Fractionalization

The measures for political deaths and riots paint a similar picture in ethnically-diverse societies, although there is mixed evidence of PR's effect in violence reduction in homogenous societies. Moreover, the following variables gave consistently statistically insignificant results from which we can draw no concrete conclusions: *internal, Minor, Major, and Revol.*[7] All these variables capture the worst kinds of political violence – full scale civil wars. It appears that no type of electoral rule is better in reducing these types of events. However, the effect of PR on the other dependent variables—*Guerrila, crisis*, and *conflict*—all provide evidence that political violence increases with the use of PR in ethnically-diverse

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[7] The direction of the marginal effects in all four of these models is positive, suggesting that PR may increase political violence.

societies.[8] In sum, we find no evidence whatsoever for the consociationalist claim that PR reduces violence in ethnically-fractionalized societies; indeed, the evidence leans slightly towards majoritarian electoral systems performing better in these settings. Moreover, we find mixed evidence that PR is better in homogeneous societies.

5.3 The Marginal Effect of Parliamentarism

Turning next to the effect of parliamentarism on political violence, we again see somewhat different results between political deaths and riots. The effect of parliamentarism on political deaths is positive and statistically significant at high levels of ethnic fractionalization (Figure 4).[9] However, with riots as the dependent variable, presidentialism has a negative and significant effect. Moreover, the effect is substantively large; at the highest level of ethnic fractionalization, presidentialism reduces the number of riots by 2 per year.

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[8] For the most part, these represent lower-scale conflicts, especially the *crisis* variable. However, what keeps us from making this stark conclusion is that the *conflict* variable's weighting makes it unclear what magnitude of political violence is being captured.

[9] With a more generous definition of democracy (polity>=0) we see a similar, but statistically insignificant effect.

Figure 4. The Marginal Effect of Parliamentarism on the Number of Political Deaths across Levels of Ethnic Fractionalization

In Figure 5, the solid line falling above the axis across all levels of ethnic fractionalization again indicates that parliamentarism leads to more riots, precisely the opposite of what consociationalist theory predicts. However, this effect is not statistically significant at the highest levels of ethnic fractionalization. The effect is still positive and significant at medium-high levels of ethnic fractionalization, so would seem to be harmful in countries such as Belgium (0.508), Burkina Faso (0.667), Fiji (0.547), Ghana (0.611), Guatemala (0.486), Indonesia (0.623), Latvia (0.541), Malaysia (0.635), Mali (0.681), Pakistan (0.511), and Senegal (0.655). Moreover, parliamentarism leads to more riots in the most homogenous countries.

Figure 5. The Marginal Effect of Parliamentarism on the Number of Riots across Levels of Ethnic Fractionalization

The other variables (internal, Minor, Guerrila, Crisis, and Conflict) all consistently show the same positive and significant marginal effect of parliamentarism on political violence.[10] Thus, we seem to have much stronger evidence against consociationalist theory in the case of parliamentarism.

5.4. The Marginal Effect of Federalism

Next, we turn to the effect of federalism on political violence. Neither Powell nor Krain test this political institution's effect, and others who do have found very mixed results (e.g. Brancati 2006). We find highly mixed results for ethnic fractionalization. In Figure 6, the marginal effect of federalism on political deaths is positive and significant at high levels of ethnic fractionalization. In Figure 7, the marginal effect of federalism on riots is negative and significant at high levels of

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[10] Only *Major* and *Revol* gave statistically insignificant effects for presidentialism, though the effect was similarly positive.

fractionalization. Federalism also has a significant effect on political violence in both figures at low levels of ethnic fractionalization, though again the effects take on the opposite sign.

Figures 6 and 7. The Marginal Effect of Federalism on Political Deaths and Riots, respectively, across levels of ethnic fractionalization

The other measures of violence provide mixed results as well. For *internal* and *Minor*, federalism is associated with less likelihood of civil war and battle deaths at high levels of EF. For *Major*, *Revol*, *Guerrila*, and *Crisis*, the effect is not significant, although the direction is the same. But for *Conflict*, the effect of federalism on conflict is positive, significant, and increasing as EF rises. One possible explanation for the mixed results on federalism is that they depend on the geographic distribution of ethnic groups. Federalism might appease ethnic groups that live in their own region by awarding groups some degree of local autonomy. However, where many ethnic groups are dispersed around the country, federalism likely has no effect. This proposition could be easily tested in future studies using

some measure of ethno-geographic segregation as an additional modifying variable. Additional avenues to explore include further distinctions among various types of federalism, both fiscal and functional (Hooghe and Marks 2003), as well as the intriguing possibility that presidentialism may also make the emergence of regional parties less likely (Brancati 2006, Golder 2006, Hicken and Stoll 2008).

5.5. The Marginal Effect of Consociationalism.

Lastly, we present our results for the test of hypothesis 4, using the composite consociationalism variable. This test is arguably the best assessment of the core consociationalist argument, which is that the effects of the recommended institutions should be most visible in combination with one another. There are only four[11] countries in our dataset that employ PR, parliamentarism, and strong federalism together, for a total of 102 observations: Belgium, Spain, Austria, and South Africa. If we take a more expansive definition of federalism, the number grows to seven: the Netherlands, Portugal, and Italy are also included. As a third alternative, we use an additive index of consociationalism, which ranges from 0 if it has none of the consociational institutions to 3 if it has all three.

The two main dependent variables, political deaths and riots, give exactly opposite support for: consociationalism increases political deaths at high levels of ethnic fractionalization, but decreases riots. None of the results using the other dependent variables are statistically significant and give varying directions of the

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[11] Germany would also qualify, but missing data on ethnic fractionalization prevent its inclusion in any of the analyses.

marginal effects. However, for the composite *conflict* index, the marginal effect of consociationalism is positive and highly significant at high levels of ethnic fractionalization. This seems to accord with the results for *riots*, though we can draw only weak conclusions from this analysis.

Finally, we analyze all countries with just PR and parliamentarism in combination, because the consociationalist predictions are most concrete for these two features. Here we see that consociationalism has a positive effect on both political deaths and riots at high levels of ethnic fractionalization, though this relationship is not statistically significant. At medium-high levels of ethnic fractionalization, consociationalism has a positive and significant effect on both political deaths and riots.

Figures 8 and 9. The Marginal Effect of PR+Parliamentarism on Political Deaths and Riots, respectively, across levels of ethnic fractionalization

We can thus conclude that, federalism aside, consociational institutions are associated with more political violence in highly divided societies. Including

federalism in the analysis, the results are inconclusive, though they also do not rule out majoritarian institutions as appropriate for divided societies.

6. Conclusion

The results presented in the previous section provide little support for consociationalist theory. To summarize, we have four key findings. First, PR is generally associated with *higher* levels of violence, in contrast to what most other studies have found. Second, presidentialism is associated with *lower* levels of political violence, again in contrast to previous studies. Third, the results on federalism are inconclusive, and suggest that federalism in isolation has inconsistent effects on political violence. Lastly, the combination of consociationalist institutions is associated with *higher* levels of political violence. Overall, then, these results provide no support for Lijphart's central institutional recommendations.

A secondary finding is that the marginal effect of institutions on political violence is zero in ethically homogenous societies. This result is understandable given the emphasis scholars have placed on institutional design in societies with the *most* serious ethnic divisions. However, empirically it is far from expected since past quantitative studies relied mostly on observations from homogenous societies, and did not distinguish between levels of ethnic homogeneity in their models.

We draw three main conclusions from these results. First and foremost, however convincing power-sharing and group autonomy might sound in the abstract,

there is little empirical evidence that the consociationalist package of institutions is able to deliver better performance *in the societies that are most at risk*. We do not attempt here to provide a full alternative to the consociationalist project. Indeed, from our perspective, consociationalist theory has the advantage of a clear set of guiding principles and an explicit link between these and institutional recommendations. Our objection here is primarily an empirical one: the central recommendations of consociationalism do not appear to be supported by real-world observations. At a minimum, taking presidentialism and majoritarian electoral systems completely off the menu of options for constitution-writers, as Lijphart advocates, appears unjustified to us. Indeed, our results suggest that in the most divided societies—the "sickest patients"—these institutions perform *better* on average at reducing violence and maintaining political stability than the alternatives.

The Indonesian example is suggestive on this point. Since it gained independence, Indonesia has had regionalized ethnic conflicts in Aceh and Western Papua. As the country underwent a rapid and volatile transition to democracy in 1998, the Aceh conflict in particular appeared set to worsen. Rather than spiraling into a full-out civil war, however, political violence in Aceh has subsided: in 2005 the central government signed a peace treaty with separatists there, and the regular attacks on military patrols and human rights abuses have all but ceased. Importantly, the efforts of the newly-elected president Susilo Bambang Yudhoyono and his administration played a crucial role in the peace process in Aceh (Liddle

and Mujani 2006). The presidency was also instrumental in attempts to quell separatism in Western Papua, although the situation there remains unresolved. In 2001, then-president Abdurrahman Wahid used his executive powers to permit the name of the province to be changed from Irian Jaya to Papua, to allow the Papuan Morning Star flag to be flown, and even to help fund a Papua Congress in mid 2000 (which turned out to be a pro-independence mass meeting) (Chauvel 2006). The situation has since deteriorated, but overall the level of politically-related violence in Indonesia has declined noticeably over the last decade, and the presidency under Yudhoyono has consistently been a force for religious and ethnic moderation in Indonesian politics (Mujani and Liddle 2010).

Our findings also point to the continuing need to consider social context in devising institutional recommendations. Future work needs to allow for the possibility that the modifying effects of institutions may be quite different for some social cleavage structures than others. We all would also benefit greatly from more refined measures of "divided society." In this analysis we followed convention by using ELF as a proxy for social diversity. Arguably, however, the severity of social divisions is not well-captured by the measures of ELF in use. For instance, consider the comparison between two relatively heterogeneous countries in our dataset, Guyana and India. Guyana features a single major ethnic division between Guyanese of East Indian (53%) and Afro-Guyanese (40%) descent, and these divisions are reinforced by race and religion as well as economic status. By contrast, India's social structure is astoundingly complex, with racial, linguistic, and religious

differences cross-cut in many instances by caste, education, and occupation. Most scholars would expect ethnic divisions to be more problematic for political stability in the long run in Guyana than in India (e.g. Milne 1981; Chandra 2005). Yet by Fearon's ELF score, India at .81 is a more severely "divided society" than is Guyana at .62. Thus, one continuing challenge is to describe more accurately which societies are truly "divided", and to investigate further the causal links between social divisions and political violence and instability.

Third, there is a clear need for additional work on how the effects of individual institutions themselves might be conditional. For instance, we have not investigated the possibility that presidentialism and PR in combination might have negative consequences in relatively homogeneous societies, but may actually be beneficial in highly fragmented societies such as Indonesia's. Our one partial attempt was to test whether the presence of the consociational package of PR, parliamentarism, and federalism had salutary effects on political violence. It did not. But we did not attempt to model the interactive effects of other institutional packages. We leave these challenges for future work.

Appendix

References

Alesina, A., A. Devleeschauwer, W. Easterly, S. Kurlat, and R. Wacziarg. 2003. "Fractionalization." *Journal of Economic Growth* 8 (2):155-194.

Barry, Brian. 1975. "The Consociational Model and Its Dangers." *European Journal of Political Research* 3(4): 393-412.

Brambor, Thomas, William Roberts Clark, and Matt Golder. 2006. "Understanding Interaction Models: Improving Empirical Analysis." *Political Analysis* 14(1):63-82.

Brancati, Dawn. 2006. "Decentralization: Fueling the Fire or Dampening the Flames of Ethnic Conflict and Secessionism?" *International Organization* 60(3): 651-685.

------. 2007. "The Origins and Strengths of Regional Parties." *British Journal of Political Science* 38: 135-159.

Bunce, Valerie. 1999. *Subversive Institutions: The Design and Destruction of Socialism and the State.* Cambridge: Cambridge University Press.

Chandra, Kanchan. 2001. "Ethnic Bargains, Group Instability, and Social Choice Theory." *Politics and Society* 29(3): 337-362.

------. 2004. *Why Ethnic Parties Succeed: Patronage and Ethnic Headcounts in India.* Cambridge: Cambridge University Press.

------. 2005. "Ethnic Parties and Democratic Stability." *Perspectives on Politics* 3(2): 235-252.

Chandra, Kanchan, and Cilanne Boulet. 2005. "Ethnic Cleavage Structures, Permanent Exclusion, and Democratic Stability." Presented at the Conference on Alien Rule and Its Discontents, University of Washington at Seattle, June 3-4.

Chauvel, Richard. 2006. "Australia, Indonesia, and the Papuan Crises." *Australian Policy Forum* 6-14A. Available at: http://www.nautilus.org/~rmit/forum-reports/0614a-chauvel.html. Accessed June 10, 2010.

Cheibub, Jose, and Fernando Limongi. 2002. "Democratic Institutions and Regime Survival: Parliamentary and Presidential Democracies Reconsidered." *Annual Review of Poltiical Science* 5: 151-179.

Chhibber, Pradeep, and Ken Kollman. 2004. *The Formation of National Party Systems: Federalism and Party Competition in Canada, Great Britain, India, and the United States.* Princeton: Princeton University Press.

Clark, William Roberts, Matt Golder, and Sonia Nadenichek Golder. 2009. *Principles of Comparative Politics.* Washington, DC: CQ Press.

Cohen, Frank. 1997. "Proportional versus Majoritarian Ethnic Conflict Management in Democracies." *Comparative Political Studies* 30(5): 607-630.

Cox, Gary. 1990. "Centripetal and Centrifugal Incentives in Electoral Systems." *American Journal of Political Science* 34(4): 903-935.

------. 1999. "Electoral Rules and Electoral Coordination." *Annual Review of Political Science* 2: 145-161.

Daadler, Hans. 1974. "The Consociational Democracy Theme." *World Politics* 26(4): 604-21.

Duverger, Maurice. 1954 [1959]. *Political Parties: Their Organization and Activity in the Modern State.* New York: John Wiley and Sons.

Easterly, William, and Ross Levine. 1997. "Africa's Growth Tragedy: Policies and Ethnic Divisions." *Quarterly Journal of Economics* 112(4): 1203-1250.

Fearon, James. 2003. "Ethnic and Cultural Diversity by Country." *Journal of Economic Growth* 8(2): 195-222.

Golder, Matt. 2006. "Presidential Coattails and Legislative Fragmentation." *American Journal of Political Science* 50(1): 34-48.

Hardgrave, Robert L. 1993. "India: The Dilemmas of Diversity." *Journal of Democracy* 4: 54-68.

Hanf, Theodore. 1980. "Education and Consociational Conflict Regulation in Plural Societies," in F. van Zyl Slabbert and Jeff Opland, eds., *South Africa: Dilemmas of Evolutionary Change.* Grahamstown: Institute of Social and Economic Research, Rhodes University.

-------. 1983. "Lessons Which Are Never Learnt: Minority Rule in Comparative Perspective." In Heribert Adam, ed., *South Africa: The Limits of Reform Politics.* Leiden: Brill.

Hechter, M., and Daniel Okamoto. 2001. "Political Consequences of Minority Group Formation." *Annual Review of Political Science* 4: 189-215.

Hicken, Allen. 2009. *Building Party Systems in Developing Democracies.* Cambridge: Cambridge University Press.

Hooghe, Liesbet, and Gary Marks. 2003. "Unraveling the Central State, But How?: Types of Multi-level Governance." *American Political Science Review* 97(2): 233-243.

Horowitz, Donald L. 1985. *Ethnic Groups in Conflict.* Berkeley: University of California Press.

------. 1991. *A Democratic South Africa?: Constitutional Engineering in a Divided Society.* Berkeley: University of California Press.

------. 1993. "Democracy in Divided Societies." *Journal of Democracy* 4: 18-38.

------. 2002. "Constitutional Design: Proposals versus Processes," in Andrew Reynolds and Scott Mainwaring, eds., *The Architecture of Democracy: Constitutional Design, Conflict Management and Democracy.* Oxford: Oxford University Press.

-------. 2004. "The Alternative Vote and Interethnic Moderation: A Reply to Fraenkel and Grofman." *Public Choice* 121(3-4): 507-516.

Huntington, Samuel. 1968. *Political Order in Changing Societies.* New Haven: Yale University Press.

Jarstad, Anna. 2001. *Changing the Game: Consociational Theory and Ethnic Quotas in Cyprus and New Zealand.* Uppsala: Department of Peace and Conflict, Uppsala University.

Jones, Mark P. 1995. *Electoral Laws and the Survival of Presidential Democracies.* South Bend: University of Notre Dame Press.

Krain, Matthew. 1998. "Contemporary Democracies Revisited: Democracy, Political Violence, and Events Count Models." *Comparative Political Studies* 31(2): 139-164.

Kymlicka, William. 1998. *Finding Our Way: Rethinking Ethnocultural Relations in Canada.* Oxford: Oxford University Press.

Laitin, David and Daniel Posner. 2001. "The Implications of Constructivisim for Constructing Ethnic Fractionalization Indices," *APSA-CP 12* (Winter).

Lane, Jan-Erik, and Swame Ersson. 1994. *Comparative Politics: An Introduction and New Approach.* Cambridge: Polity Press.

Leff, Carol Skalnik. 1999. "Democratization and Disintegration in Multinational States: The Breakup of the Communist Federations." *World Politics* 51(2): 205-235.

Liddle, R. William, and Saiful Mujani. 2006. "Indonesia in 2005: A New Multiparty Presidential Democracy." *Asian Survey* 46(1): 132-139.

Lijphart, Arend. 1968. *The Politics of Accommodation: Pluralism and Democracy in the Netherlands.* Berkeley: University of California Press.

------. 1969. "Consociational Democracy." *World Politics* 21(2): 207-25.

------. 1977. *Democracy in Plural Societies: A Comparative Exploration.* New Haven: Yale University Press.

------. 1981. "Consociational Theory: Problems and Prospects." *Comparative Politics* 13(3): 355-60.

------. 1984. *Democracies: Patterns of Majoritarian and Consensus Government in Twenty-One Countries.* New Haven: Yale University Press.

------. 1985. *Power-Sharing in South Africa.* Berkeley: University of California Press.

------. 1991. "Constitutional Choices for New Democracies." *Journal of Democracy* 2: 72-84.

------. 1997. "Unequal Participation: Democracies' Unresolved Dilemma." *American Political Science Review* 91: 1-14.

------. 2004. "Constitutional Design for Divided Societies." *Journal of Democracy* 15(2): 96-109.

------. 2008. *Thinking about Democracy: Power-Sharing and Majority Rule in Theory and Practice.* New York: Routledge.

Mainwaring, Scott. 1993. "Presidentialism, Multipartism, and Democracy: The Difficult Combination." *Comparative Political Studies* 26(2): 198-228.

Mietzner, Michael. 2010. "Indonesia in 2009: Electoral Contestation and Economic Resilience." *Asian Survey* 50(1): 185-194.

Milne, R.S. 1981. *Politics in Ethnically Bipolar States: Guyana, Malaysia, Fiji.* Vancouver, BC: University of British Columbia Press.

Mujani, Saiful, and R. William Liddle. 2010. "Indonesia: Personalities, Parties, and Voters." *Journal of Democracy* 21(2): 35-49.

Neto, Octavio Amorim, and Gary Cox. 1997. "Electoral Institutions, Cleavage Structures, and the Number of Parties." *American Journal of Political Science* 41(1): 149-74.

Norris, Pippa. 2008. *Driving Democracy: Do Power-Sharing Institutions Work?* Cambridge: Cambridge University Press.

O'Leary, Brendan, and John McGarry. 2004. *The Northern Ireland Conflict: Consociational Engagements.* Oxford: Oxford University Press.

Plumper, Thomas, and Vera E. Troeger. 2007. "Efficient Estimation of Time-Invariant and Rarely Changing Variables in Finite Sample Panel Analyses with Fixed Unit Effects." *Political Analysis* 15(2): 124-139.

Powell, G. Bingham. 1982. *Contemporary Democracies: Participation, Stability, and Violence.* Cambridge: Harvard University Press.

Rabushka, Alvin, and Kenneth Shepsle. 1972. *Politics in Plural Societies: A Theory of Democratic Instability.* Columbus, OH: Longman.

Rae, Douglas, and Michael Taylor. 1970. *The Analysis of Political Cleavages.* New Haven: Yale University Press.

Reilly, Benjamin. 2001. *Democracy in Divided Societies: Electoral Engineering for Conflict Management.* Cambridge: Cambridge University Press.

------. 2002. "Electoral Systems for Divided Societies." *Journal of Democracy* 13(2): 156-170.

Reynal-Querol, Marta. 2002. "Ethnicity, Political Systems, and Civil Wars." *Journal of Conflict Resolution* 46(1): 29-54.

Reynolds, Andrew, and Benjamin Reilly. 1999. *Electoral Systems in Divided Societies.* Washington, DC: National Academy Press.

Roeder, Philip. 1991. "Soviet Federalism and Ethnic Mobilization." *World Politics* 43(2); 196-232.

Saideman, Stephen, David J. Lanoue, Michael Campenni and Samuel Stanton. 2002. "Democratization, Political Institutions, and Ethnic Conflict: A Pooled Time-Series Analysis." *Comparative Political Studies* 35(1): 103-129.

Sartori, Giovanni. 1976. *Parties and Party Systems: A Framework for Analysis.* Cambridge: Cambridge University Press.

Selway, Joel Sawat. 2007. "Cross-cutting Cleavages: Theory and Measurement of Social Structure." Unpublished manuscript.

------. 2009. *Constitutions, Cross-cutting Cleavages, and Coordination: The Provision of Public Goods in Developing Countries.* Ph.D. dissertation, University of Michigan.

Shugart, Matthew, and John Carey. 1992. *Presidents and Assemblies.* Cambridge: Cambridge University Press.

Snyder, Jack. 2000. *From Voting to Violence: Democratization and Nationalist Conflict.* New York: W. W. Norton.

Taylor, Michael, and Douglas Rae. 1969. "An Analysis of Crosscutting between Political Cleavages." *Comparative Politics* 1(4): 534-547.

Tsebelis, George. 2002. *Veto Players: How Political Institutions Work.* Cambridge: Cambridge University Press.

Watts, Ronald L. 1999. *Comparing Federal Systems.* Kingston, ON: Queens University, Institute of Intergovernmental Relations.

Woodward, Susan L. 1999. "Bosnia and Herzegovina," in Barbara F. Walter and Jack Snyder, eds., *Civil Wars, Insecurity and Intervention.* New York: Columbia University Press.