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# *Explaining Variation in Governments' Response to Dissent: The Effect of Fragmentation of Self-Determination Movements*

**Abstract**

The extensive literature seeking to explain cross-national variation in political repression has provided with many and relevant explanans. Yet, it appears that unexplored dimensions remain. Specifically, the literature has overlooked how variation in governments' response may depend on variation in the internal organization of challenging movements. Focus the attention on self-determination disputes, this project investigates whether variation in regimes' responses to self-determination movements is affected by one particular factor, i.e., the degree of fragmentation of the movements. I argue that higher degrees of fragmentation within self-determination movements provoke incentives for state-repression. The theoretical argument I propose suggests that the fragmented nature of the challenging movements decrease the ability of the regime to negotiate, due to more severe grievance of the 'neglected' groups in case the government only partially accommodates the requests of an internally divided movement. Assessing this question has important policy implications, as it would help to better understand the mechanisms driving the dissent- repression spiral that often leads to an escalation of political violence. This, ideally, facilitates Political Institutions and International Organizations in improving Mediation and Conflict Resolution programs.

## Introduction

What does determine the variation in the use of repression across countries? There is a great diversity in the ways governments respond to dissent and in the implications this variation might have on how conflicts unfold. Regimes' response varies ranging from peaceful accommodations to various forms of repression. The vast current research on state repression has provided with relevant insights. Nonetheless, the literature has overlooked how the response of regimes might depend also on the internal structure of challenging movements, which varies significantly. Within the existing research there is a common inclination to treat challenging movements as homogeneous actors. Challenging movements, however, are often less cohesive than we expect. For instance, the ongoing conflicts in Syria, Iraq, and Libya reflect the wider fragmentation of Middle Eastern movements. In Syria, the opposition has fragmented repeatedly. In Libya, infighting among the different factions has divided the country into rival camps. These examples are not exceptional. In a recent book[1], Kathleen

[1] Inside the Politics of Self-Determination, Oxford University Press, 2014.

Gallagher Cunningham records that since the 1960s just 37% percent of self-determination movements remained cohesive over time, with one clear leader during the majority of the interaction with the host states. Ethnic groups such as 'Kurds' or 'Kashmiris' comprise a multitude of different organizations, often with different preferences and competing each other.

Focusing the attention on the internal structure of self-determination movements, the central research question of this project is: Is the response of regimes to self-determination movements affected by the degree of internal fragmentation of the movements? Analyzing this issue is of paramount importance because it means investigating structural causes of violence. This enhances our understanding of the mechanisms driving the dissent- repression spiral, facilitating policy makers and international organizations to improve mediation and conflict resolution programs. The proposed analysis will be both qualitative and quantitative. For the qualitative analysis, I will consider several case studies. For the quantitative investigation I will perform a Cross- Sectional Time-Series regression analyses. I will also use formal models to better explain the mechanism I present.

**Variation to Be Explained and Motivation**

This research focuses on self-determination disputes and intends to investigate whether the variation in regimes' responses to self-determination movements depends on the degree of fragmentation of the movements. The dependent variable of this research is (the use of) state repression as governments' response to self-determination movements.[2]

Assessing the impact of fragmentation of challenging movements on government response to dissent has great implications, for both scholarly and policy reasons. In analyzing repression, intrastate armed conflicts, and political violence, both policymakers and scholars, seeking to understand the dynamics of violence between the state and its challengers, have tended to assume the two actors as unitary blocks (Smith and Stam 2003; Lake 2003; Fearon 2004; Hegre 2004). However, the assumption of two-sided conflict between unitary actors does not meet the reality of complex struggles involving numerous actors (Bapat 2005; Bakke, Cunnigham, and Seymour, 2012). An analysis seeking to explain the dissent-repression nexus needs to account for the complexity that arises when the actors in dispute come to fragment. In practical terms, investigating whether higher degrees of fragmentation of the challengers lead the regime to undertake repressive actions, deepens our understanding of the mechanisms shaping the dissent-repression gyre, which often causes escalation of violence. Importantly, this can help policy makers and national and international organizations to development ad hoc conflict resolution and mediation programs, both in pre-conflict, intra-state conflict, and post-conflict scenarios. It can also facilitate the development of early warning mechanisms to predict, and ideally prevent, escalation of political violence and civil conflicts onset. Besides, this analysis contributes to and extends the existing literature on the relation between repression and dissent.

[2] More details on conceptualization and operationalization of the variables are given below in the Research Design section.

## Literature Review: Findings and Lacunae

The relation between repression and dissent is essential within the repression scholarship. The extensive literature seeking to explain cross-national variation in political repression has been increasingly expanded. Repression is found to be positively correlated with several variables related to both external and internal factors. Greater repression, for instance, is explained in countries with lower per capita income, larger population size, and undergoing intra- or inter-state conflicts (Davenport and Armstrong, 2004; Poe and Tate, 1994; Poe et al., 1999). In an early quantitative study, Henderson (1991: 132) found that the extent of societal inequality, democracy, and the economic growth rate all provide explanatory power with regards to the use of repression by the government. Further research focusing on contextual factors has scrutinized at length the effect of regime types on the likelihood of government repression. Several studies in the Comparative Politics literature have extensively shown a linear negative correlation between the level of democracy and political repression (Ziegenhagen 1986; Mitchell and McCormick 1988; Henderson 1991; Poe and Tate 1994). However, some scholars started to question and test for the linearity of this relation. A large part of these studies emphasizes the role of threats as key explanatory variable. Hence, the difference in levels of repressiveness between democracies and autocracies has been explained by the divergent threat perceptions of the two regime types (Carey, 2006, 2010; Davenport, 2004; Davenport & Armstrong, 2004; Fein, 1995; Henderson, 1991; Mesquita, Downs, Smith, & Cherif, 2005; Regan & Henderson, 2002; Zanger, 2000). According to the scholarship, democracies are less likely to experience anti-government threats and to perceive dissent as threatening to the regime's survival (Davenport, 1995: 703). Further attention has been given also to the effect of dissent upon repression, which has been found empirically positive (Carey, 2006; Davenport, 2007a; Ginkel & Smith, 1999; Shadmehr, 2014). Leading current research seeking to explain the response of autocratic regimes to challengers in armed conflict scenario demonstrates that this is significantly affected by variation in the relative capabilities of the disputants (Goertz and Diehl 1992; Bartkus 1999; Huth 1996; Toft 2003) and on the value of the stakes, especially those related to territory concessions (Holsti 1991; Vanzo 1999; Walter 2003).

Yet, despite the many and viable findings, the literature examining the dissent–repression nexus is far from being conclusive. A considerable gap is identifiable from the, implicit or explicit, inclination to treat opposition and dissent as homogeneous entities[3]. However, challenging movements are not monolithic blocks, and changes in actors and internal structures become important determinants in shaping the way dissent-repression interaction actually unfolds. Governments can face simultaneously

[3] It also should be noted that the limited assumption of unitary actors in part has been made for parsimony. Indeed, this persisted inclination within the literature is also due to the lack of data on the internal structures and complexity of the actors. With more recent and rich sources for collecting data, today it is possible to go beyond this restricted assumption and investigate the characteristics of the actors involved in disputes.

a multitude of different political threats[4]. In deciding the rationally optimal response, regimes need to consider the different dimensions and attributes of distinct types of challengers. Some are armed and violent, and militarily threating. Other are non-violent, but not necessarily less able to politically challenge. Some are more cohesive than others. Hence, a major lacuna: that the existing literature has overlooked how the response of governments might depend also on the degree of fragmentation, of the challengers, which varies significantly from case to case.

**Contribution to the Literature: A New Theoretical Argument**

To fill the aforementioned gap in the literature, I intend to address the analysis on dissent- repression nexus developing a theoretical argument derived from insights of the growing body of literature that concentrates its effort in analyzing the effect of socio-political fragmentation on civil conflicts dynamics. Theoretical and empirical recent studies of civil conflicts and conflict resolution, suggest that accounting for complexity is fundamental, and variation in the characteristics of actors appears as crucial (Bakke, Cunningham, and Seymour, 2012; Findley and Rudloff, 2012). This growing research body empirically demonstrates that when challenging movements come to fragment in different groups, the level of violence dramatically increases. Higher levels of fragmentation are positively associated to higher level of both violent infighting among the different challenging groups and violence against the regime (Cunningham and Seymour, 2012). Moreover, higher levels of fragmentation of the challenging movements are empirically found to increase the violence both against rival ethnic civilians as instrument of retaliation (Cunningham and Seymour, 2012) and against co-ethnics, both to punish those supporting competing factions and as an instrument of deterrence (Humphreys and Weinstein 2006; Kalyvas 2006; Weinstein 2007).

The research project I propose fits squarely with - and bridges together - both the vast literature on repression- dissent nexus and the growing literature investigating the effects of fragmentation of challenging groups on conflict dynamics and conflict resolution. It will contribute to the former literature putting the attention on fragmentation of challengers as key explanatory variable for the variation in the use of state repression as response to self-determination movements. While it will contribute to the latter by focusing on another sever and important outcome of fragmentation, i.e., the decision by governments to either offer concessions or repression in response to the challengers.

Furthermore, assessing the effect of fragmentation within opposition movements is not necessary limited to investigate repression-dissent relations or civil conflict onset and dynamics. Both in the fields of sociology and political anthropology scholars have long scrutinized the role of factionalism and inter-and-intra-group conflict in social change and the organizational structure.[5] Moreover, political scientists acknowledge that cohesion (or lack thereof) importantly affects dynamics of

[4] For instance, many states face multiple, different challenges over self-determination, e.g., Indonesia, along with the East Timor (that gain independence) faces three other challenging movements over self-determination: the Papuans, the Aceh, and the Dayaks.

[5] On social change, see Siegal and Biels 1960, Bujra 1973, Brumfiel and Fox 2003. Others put specific attention on organizational structures of gangs, e.g., Yablonsky 1959, Fagan 1989, Jankowski 1991.

political parties[6], social movements[7], labor politics,[8] and ruling parties especially in authoritarian states.[9] In these sense, variation in the level of fragmentation has consequences for any socio-political movement that acts in the pursuit of a collective interest on behalf of a particular group.

Hence, though the focus of this analysis will be narrowed on self-determination movements, its potential usefulness would be larger in scope, embracing various literatures of social sciences and contributing to deepen our understanding of individual and collective behaviors.

## Hypothesis - Expected Outcome

My main hypothesis is that higher degrees of fragmentation within self-determination movements increase the government's incentive to pursue repression when dealing with dissent. The rationale for this hypothesis is that a higher degree of fragmentation would make negotiation more difficult ex ante due to more severe grievance of the 'neglected' groups in case the government only partially accommodates the requests of an internally divided movement. This would lead to a set of constrains on the state's ability to negotiate concessions in a way that can sufficiently satisfy all the actors involved and increase the government's incentives to pursue an iron fist response in the first place.

Though the focus of this analysis will be on internally divided self-determination movements, the proposed argument can be applied to any fragmented opposition movement.

## Causal Mechanism

### Costly Concessions: Internally Divided SD Movements, Grievance, and 'Strategic Repression'

A large share of the literature on bargaining models, in both inter- and intra-state conflicts, has extensively stressed the role of two main sources of constraints on the settlement of disputes: information and commitment problems.[10] While both these types of friction play a crucial role in bargaining and conflict resolution processes, much less attention has been given to another potential source of constraint: the ability of the different groups[11] within an opposition movement to coordinate[12] their interests for the collective good and its consequent effects on state behavior. Failing to analyze this aspect means missing a considerable part of the story. Within internally divided movements competition among the different groups and their inability to overcome the personal interests and expectations towards a coherent set of demands is likely to decrease the incentives of the

[6] Almond 1958, Zariski 1960, Duverger 1963, Filippov, Ordeshook, and Shvetsova 2004.
[7] Zald and McCarthy 1980, Benford 1993.
[8] Olson 1982, Ahlquist 2010.
[9] Shih 2009, Sakwa 2011.
[10] For instance, according to this literature, information problems are likely to be particularly severe in intrastate disputes. Especially in a context with multiple factions, such as Cambodia's in 1970s, Afghanistan in the 1980s, Congo in the 2000s, or the current situations in Syria, information problems are likely to decrease the chance to locate a common bargaining (Cunningham, 2006).
[11] In the literature on fragmentation, the terms 'faction', (sub-)groups, or 'organization' have been used by different authors to represent a same concept. Here, I use the term 'groups'. I conceptualize them as separate organizations within the broader movement that recognize no higher command authority within the movement and independently present distinct requests to the government.
[12] Importantly, here 'coordination' is not referring to a coordination game as defined in game theory.

government to make concessions and settle disputes in a peaceful way.

Many explanations of ethnic violence have focused on the role of grievance as mechanism leading to conflict (Hechter, 1975; Gurr, 1993). Grievance clearly matters as it provides strong motivation for people to take action against the state.[13] Still, few explanations take into consideration the role of the state in mitigating grievance and the effect of opposition fragmentation on the state's ability to do so (Cunningham and Weidmann, 2010).

Within fragmented movements characterized by different groups claiming to represent the overall movement, state concessions can easily generate grievance if the state is unable to satisfy all groups. This claim can seem counterintuitive. Specifically, one could argue that although the government is willing to concede to only one (or a few) group(s), the overall movement benefits to some extent. Thought this argument is valid in theory, in real world terms this is less obvious. For example, in the Israeli-Palestinian case, Pearlman (2012) has shown how peace settlements acceptable to some Palestinian factions[14] have been unacceptable to other factions, which ultimately turned to violence to derail the peace accord because of how it would impact their own interests. Another case is the fragmented Bodo movement in India during the 1990s-2000s, when some factions repeatedly derailed the agreements between the government and the rest of the movement (George, 1994; Chaklader, 2004). These cases show that groups within a fragmented self-determination movement may have an incentive to escalate the conflict even though the government makes partial concessions that arguably improve the status quo of the whole movement. There can be several reasons for this: the groups' struggle for legitimacy and representativeness within the movement, differences in the perceived costs and benefits of state concessions among the groups, inter-group competition about the relative status within the movement (Rabushka and Shepsle, 1972; Cunningham, 2011; Pearlman, 2012, 2013). If the government decides to accommodate only a part of the movement, all these factors can increase the grievance of the "neglected" groups and their likelihood to radicalize and escalate the conflict, although the government's concessions improve the status quo of the overall movement. In this sense, fragmentation would constrain the state's use of concessions, limiting the possibility of resolving a dispute involving numerous actors in a peaceful way. The overall effect of this mechanism is to decrease the ability of states to use concessions and accommodative policies. The degree to which this mechanism will operate depends on the extent to which the movement is internally divided. In such case, the regime may find rationally optimal to preemptively repress the movement because it anticipates that even if it proposes some concessions, there will be challenging parties that are dissatisfied with the solution and willing to escalate. Hence, I expect that when states face internally divided self-determination movements, repression will be more frequent.

[13] However, grievance alone cannot be a sufficient explanation of escalation of violence. Other scholars put the attention on the role of opportunity to engage in violence. Factors such as rough terrain (Gurr, 1970, 2000; Gurr and Moore, 1997), resources (Le Billon, 2001; Ross, 2003; Collier and Hoeffler, 2004), geographic concentration (Toft, 2003; Weidmann, 2009), or political instability (Fearon and Laitin, 2003) can explain why grievances translate into violence in some places but not others.

[14] In my analysis, I refer to them as 'groups' within a self-determination movement.

To improve the consistency of my theoretical argument and get a better understanding of the logic, I developed two (simple) formal bargaining models. You can find a detailed explanation of these models in the appendix. Specifically, I present two hypothetical scenarios (a unitary movement and a fragmented movement) to show when and how fragmentation affects the interaction between repression and dissent.

## Research Design and Data

### Dependent Variable

For the purpose of this analysis repression conceptually refers to both civil liberties repression and personal integrity repression. Civil liberties repression is concerned with governmental infringement on First Amendment-type rights, i.e. state behavior and/or policy that limits or restricts, for instance, civil freedoms of participation, expression, association, travel, or assembly (Davenport, 2007a: 2). I will use The Freedom House Civil Liberties scale from the annual Freedom in the World report to operationalize this concept (FreedomHouse, 2015a, 2015b). The measurement scale ranges from 1 to 7; each country and territory is assigned two numerical ratings for political rights and civil liberties, where 1 representing the freest, and 7 the highest level of restrictions.

Personal integrity repression includes: political imprisonment, extrajudicial killing, torture and other physical abuses, and disappearances (Wood and Gibney, 2010: 369). I will use data from Human Rights Protection Scores Project (Fariss, 2014). This project relies on publicly data from the CIRI, PTS, and Uppsala Data Projects. I also use data at the sub-national level, e.g., NSF Sub-National Analysis of Repression Project (Fariss, 2014), and event-based data, e.g., ICEWS and the European Media Monitor (EMM).

### Independent Variable

My analysis will focus on self-determination movements.[15] Seminal definitions of social movements (e.g., Tarrow, 1998) were based on ideas of consensus, unity, coherent actions, common purposes, and solidarity. However, a large part of the literature has acknowledged substantial variation within movements (Tilly, 2004). In particular, vast empirical research (McLauchlin and Pearlman, 2012; Bakke, Cunningham, and Seymour, 2012; Pearlman, 2013; Krause 2013) has shown that within self-determination movements, there is substantial disagreement and variation over interests and the means to achieve them, as well as competition for leadership and influence among the groups constituting the movement. This evidence suggests that within a movement there can be multiple actors with different utility functions with respect to the outcomes of a possible agreement with the

[15] I define a self-determination movement in terms of shared identity and sense of common fate (e.g., Bakke et al., 2012; Cunningham 2011, 2012, 2013; Seymour et at., 2015). This includes movements made of organizations mobilizing on the basis of ethnic, tribal, clan, linguistic, or national identities, as well as movements acting in the name of ideological identities (Cunningham et al., 2012).

government. I use this type of movement's fragmentation as key independent variable in my analysis of government's repression/concession to self-determination movements.

Building on previous research (Bakke et al., 2012), I conceptualize fragmentation in two ways: (1) the number of separate groups within a movement,[16] i.e., the number of those organizations within the broader movement that recognize no higher command authority and present distinct requests to the government independently; and (2) the concentration of strength across groups within the same movement. These proxies are appropriate for my analysis for three main reasons. Firstly, my theoretical argument is based on the fact that within an opposition movement there are different and distinguishable actors that present separate demands to the government and obtain different utilities from government's concessions. As mentioned above, the rationale behind this argument is that the existence of multiple organizations within the same movement would suggest underlying disagreements over collective interests and/or the means to achieve them (Bakke et al., 2012). Hence, the number of groups within a self-determination movement is a natural proxy for this concept; the higher is the number of groups within the movement, the more fragmented is the movement.

Secondly, as my model shows, the state's response also depends on the groups' strength.[17] For now, my model assumes that all groups have the same strength, but it can be easily extended to the case in which groups have different strengths. In this case, if some groups are much more powerful than the others, this could mean that for the government, the number of "true" opponents is actually smaller than the total number of groups within the movement. That is, there would be an "effective number" of challenging groups that depends on the concentration of strength across groups. To capture this "effective" number of groups, I plan to use the inverse of the Herfindahl index for the concentration of strength within the movement as defined by:

$$N_{eff} = 1/HHI = 1/\left(\sum_{i=1}^{N} s_i^2\right)$$

where $N$ is the number of groups, and $s_i$ is group $i$'s share of the whole movement's strength. To measure the "strength" of each group, I will follow a common approach in the literature on conflict dynamics (Cunningham, Gleditsch, and Salehyan, 2009; Wood, 2010; Krause, 2013) and use the number of group members, or the number of fighters/troops in case of violent-rebel groups.[18]

To construct these variables, I will collect data from the NSA dataset and UCDP[19] database on non-

[16] In the literature on fragmentation, the terms 'faction' or 'organization' have been used interchangeably to represent this concept. In this paper I used both the term 'groups' and 'organizations' to refer to this concept.

[17] The optimal response of the government to the groups' demands, depend on its probability of winning an open conflict against the groups in case of escalation, which is obviously a function of the groups' strength.

[18] In the analysis, I will account for both violent and non-violent groups (see above definition). I expect that when violent groups are present, the state repression will be more frequent and more severe. This is because the likelihood that neglected groups would escalate the conflict (leading the government to choose a preemptive repression rather than partial accommodation) is arguably even greater if the groups are violent. To account for the presence of violent militias, I will use a dummy equal to 0 if no violent factions are present in the movement in a given year, and equal to 1 otherwise (Cunningham, 2011).

[19] www.ucdp.uu.se. All of the UCDP's datasets, and their respective codebooks, can be downloaded from: http://www.pcr.uu.se/research/UCDP/data_and_publications/datasets.htm.

state actors (Clayton, 2012); regarding non-violent organizations, I will also use the CIDCM (Maschall and Gurr, 2003) and MAR[20] projects datasets.

Finally, these proxies I propose to measure fragmentation are appropriate because they are commonly used in the literature on the effect of fragmentation on civil war onset and dynamics (Cunningham, 2011, 2012, 2013; Bakke et al., 2012; Seymour et al., 2015), which allows me to compare my results with the leading empirical work in that field.

**Descriptive statistics**

| **Variables** | **Min** | **1stQ** | **Median** | **Mean** | **3rdQ** | **Max** | **Std.dev.** |
|---|---|---|---|---|---|---|---|
| PTS Ind**.** | 1.00 | 1.00 | 2.00 | 2.51 | 3.00 | 5.00 | 1.20 |
| CIRI Ind | 0 | 2.00 | 4.00 | 3.86 | 6.00 | 8.00 | 2.52 |
| Factions | 1.00 | 1.00 | 2.00 | 3.33 | 4.00 | 39.00 | 3.25 |

The figures below serve as 'motivating graphs' for this research project.

Figure 1 shows the mean of repression index over time from 1976 to 2016. The variable is labeled as *PTS*; the data are drawn from the Political Terror Scale Dataset (2017).

Figure 2, shows the trend in the time series (1981-2011) of the repression index (mean) with data from the CIRI dataset (2014). The variable is labeled *PHYSINT*.

Figure 3 shows the trend in the time series (1960-2005) of the proxy for the degree of fragmentation (mean) as conceptualized in the previous section.

Observing the graphs, it seems that the variables move together over time. Importantly the variable *PHYSINT* is measured according to a scale that range from 0 to 8, where 0 is the highest level of repression; while the variable *PTS* is measured with a scale from 1 to 5, where 5 is the highest level of repression.

[20] This project is part of the Center for International Development and Conflict Management's (CIDCM): www.cidcm.umd.edu/mar. See, e.g., the variable PROT*: http://www.cidcm.umd.edu/mar/data.asp.

Figure 1

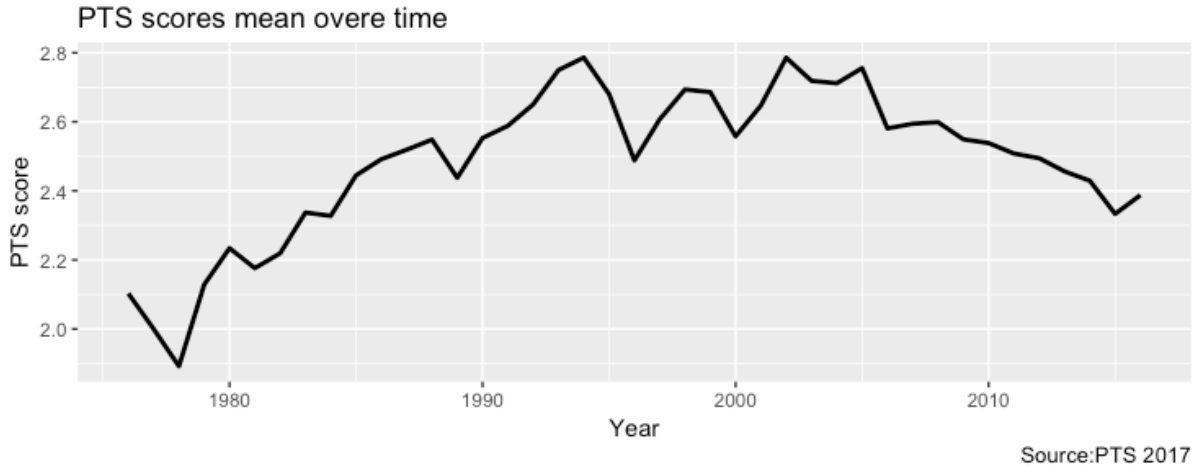



Figure 2

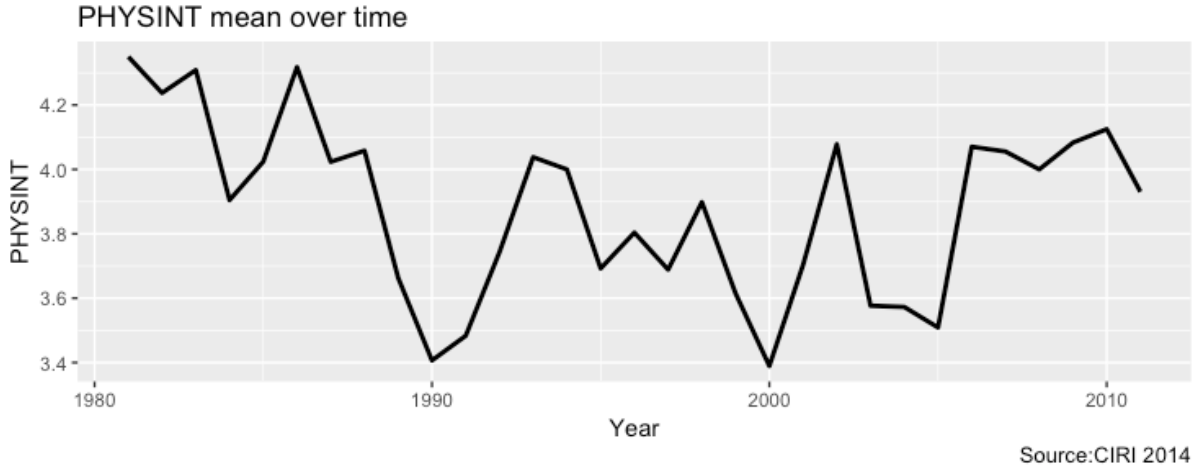
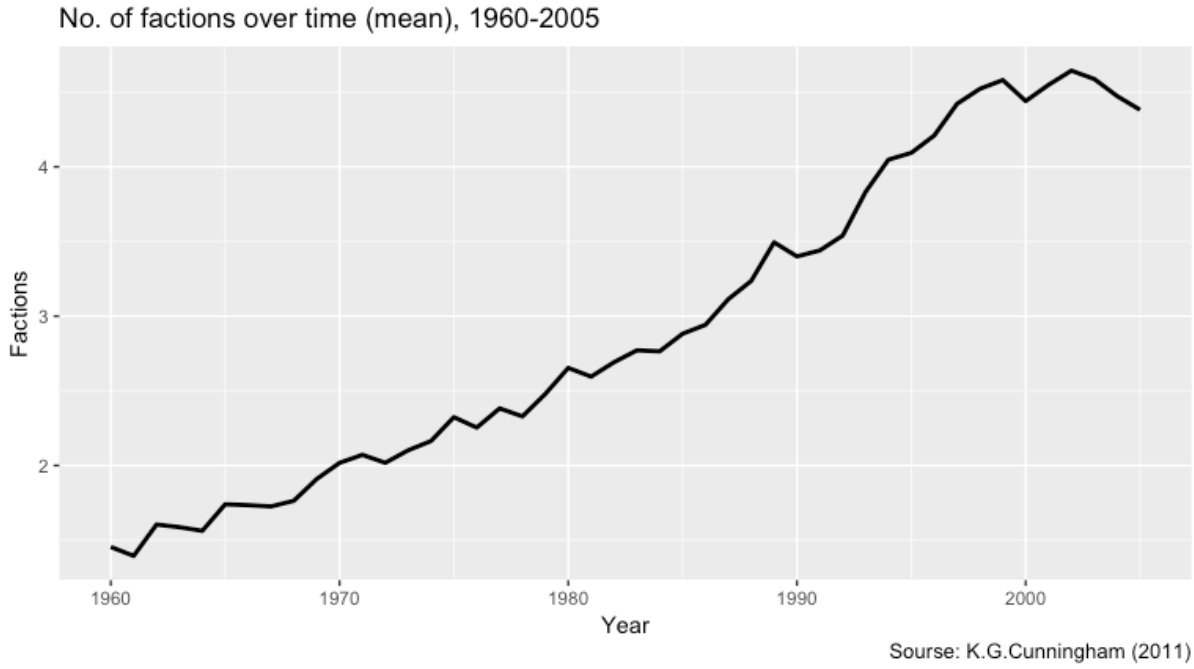



Figure 3



The boxplots below display the within-country distribution over time of the three variables. To make the boxplot clearer and easier to read, only a few countries have been selected. The aim is to show the cross section heterogeneity of the variables of interest.

Figure 4 and 5 show the distribution over time within country respectively of the variable *PTS_S* and *PHYSINT*. Figure 6 displays the within-country distribution over time for the variable *Factions* (i.e., number of factions).

Figure 4

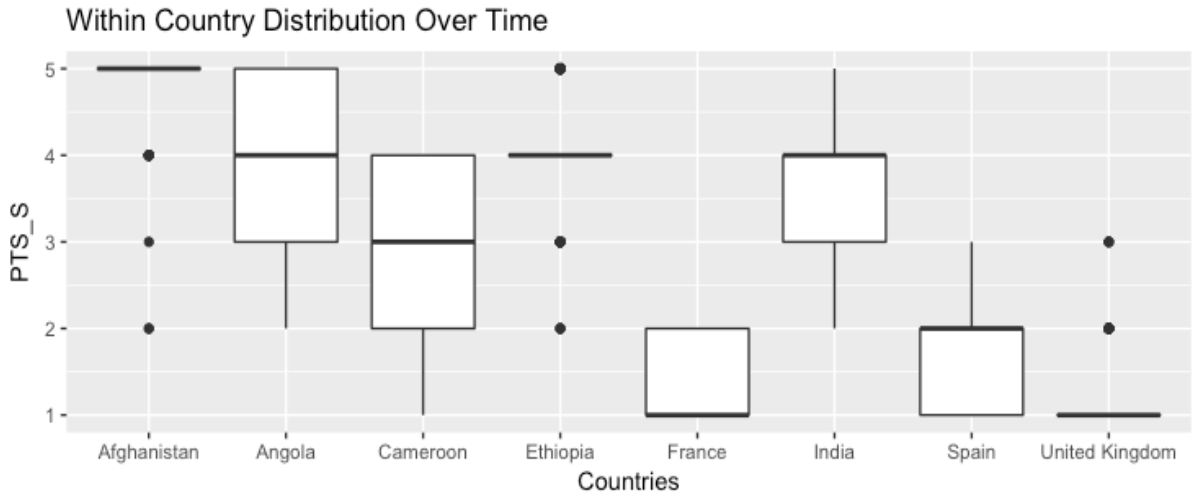



Figure 5

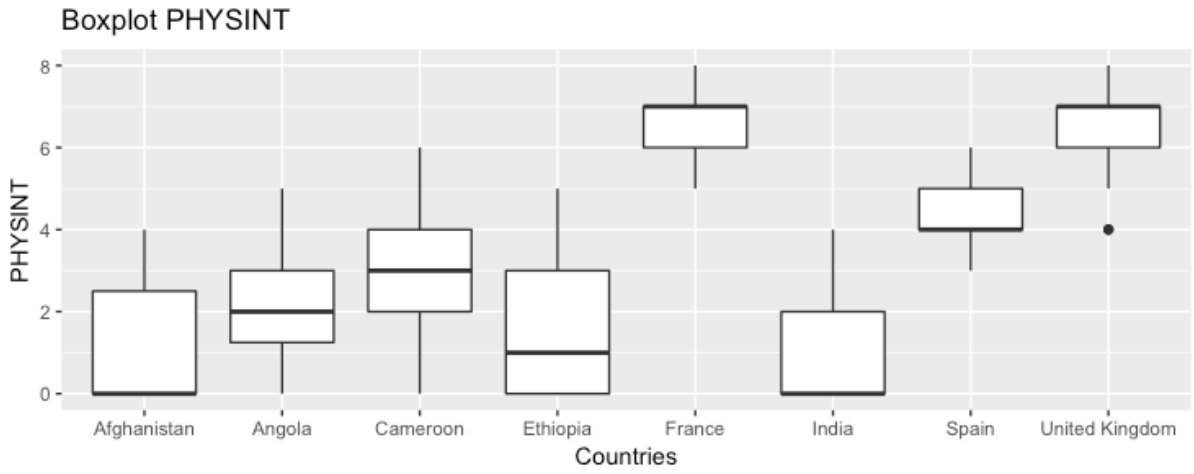
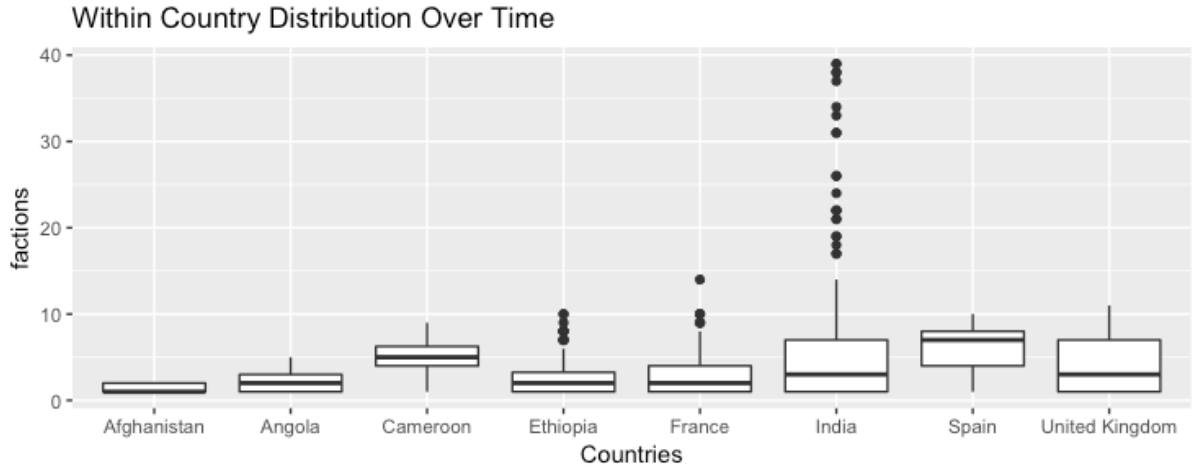


Figure 6




**Controls Variables**

The analysis will include a number of controls variable. I intend to employ a series of dummy variables, which would distinguish for sub-type of regimes: e.g., if the regime is authoritarian, I want to distinguish whether it is military, one-party based, monarchy or personalist (Geddes, 1999; Geddes et al., 2012) system. I will account for ethnic fractionalization index. Data will be drawn from several datasets: GeoEPR dataset, and Ethnic Composition Data (PRIO). Another dataset could be the GREG project, whose main advantage is disaggregating ethnicity spatially[21]. I want also to control for wealth and population size (Gleditsch 2002b), as research has commonly demonstrated the effect of these variables on human rights (Poe, Tate, and Keith 1999). I will thus account for total population size (logged) and for (logged) GDP, GNP, and the Gini coefficient to measure the economic inequality within the country. Another control variable will be the urban population in its percentage. I also consider contextual variable such as neighborhood instability and foreign pressure. For neighborhood instability I mean for instance whether an insurgency or a civil conflict occurs in one or more neighboring countries. Data on insurgency or civil war occurrence will be drawn from the Uppsala Conflict Data Program/Peace Research Institute Oslo (UCDP/PRIO) Armed Conflict Data set). I will define "neighbors" those within 950 km of the target state.[22] Foreign pressure could be operationalized using world-level dataset with data from the Integrated Crisis Early Warning System (ICEWS) and newspaper articles from Europe Media Monitor (EMM). I could ideally use also other sources like journals and newspaper articles, such as: New York Times, Foreign Affairs, Stratfor, and Foreign Policy, and other online sources.

[21] Weidmann N.B., RØD J.K.,and Cederman L-E, 2010.
[22] Gleditsch and Ward 2001.

## Testing the Hypothesis

My main hypothesis is that higher degrees of fragmentation within self-determination movements are correlated with higher levels of state repression. In other words, I expect that in presence of fragmented self-determination movements, state repression is more frequent than when the movements are more cohesive. In order to empirically test my hypothesis, I will run a wide series of panel data regressions.

In this paper, I present the results of a preliminary quantitative analysis. The dataset used has been constructed with data drawn from the CIRI (version 2014), PTS (version 2017), and the K.G. Cunningham's dataset (2011)[23].

Table 1 reports four models- two ordinary least squares regression models and two ordered logistic regressions- with respectively *PTS* and *PHYSINT* as dependent variables. The two variables are proxies for repression; the data are drawn respectively from the Political Terror Scale dataset and the CIRI dataset. For these preliminary analyses, I intentionally decided to use linear regression model, despite the dependent variable is discrete, because it makes easier to infer and it also allows for direct interpretation of the coefficients both in terms of sign and magnitude. The two ordinary least squares regression models are with robust standard errors both for heteroscedasticity and serial correlation (autocorrelation).

The ordered logit models have been employed because they treat the dependent variable as ordered outcome. This gives appropriate quantitative means to test the prediction that: the higher the degrees of fragmentation within the SD movement, the more likely is the state to use repression. However, I acknowledge that logistic models do not allow interpretation of magnitude.

The results below show that the coefficient on the main independent variable is significant. According to model1, everything equal, per each unit increases in the degree of fragmentation of SD movements in a year, state repression increases respectively by 0.051. Model 2 suggests that, everything equal, per each unit increases in the degree of fragmentation of SD movements in a year, the government respect for the physical integrity rights decreases by 0.088. Importantly, as already mentioned, the variable "PHYSINT" is measured differently from the proxy PTS. The CIRI project scale, indeed, measures the repression index with a scale ranging from 0 to 8, where 0 means no government respect for physical integrity rights and 8 represents full government respect. The coefficients of these two models are statistically significant at the 1% level. Also the two ordered logit models show that the coefficient on the main independent variable is statistically significant.

[23] However, as already mentioned in the previous section, I will further expand the dataset using the Human Rights Project (Fariss, 2014).

Table 1: The first two models are ordinary least squares regression models, with robust standard errors. The first model has the PTS (Political Terror Scale) index of repression as dependent variable. This variable is measured with a scale form 1 to 5, where 5 is the highest level of repression. The second model uses the Physical Integrity Rights Index (CIRI) as dependent variable. The variable is measured with a scale from 0 to 8, where 0 is the highest level of repression. The last two models are ordered logistic regressions. Standard errors in parentheses.

| | *Dependent variable:* | | | |
|---|---|---|---|---|
| | PTS | PHYSINT | PTS | PHYSINT |
| | *OLS* | *OLS* | *ordered logistic* | *ordered logistic* |
| | (1) | (2) | (3) | (4) |
| factions | 0.051*** | −0.088*** | 0.102*** | −0.135*** |
| | (0.0159) | (0.0243) | (0.013) | (0.017) |
| democracy | −0.695*** | 0.822*** | −1.288*** | 0.772*** |
| | (0.173) | (0.291) | (0.124) | (0.130) |
| instab | 0.127 | −0.210 | 0.229 | −0.234 |
| | (0.126) | (0.281) | (0.154) | (0.167) |
| loggdppc | −0.335*** | 0.800*** | −0.639*** | 0.819*** |
| | (0.093) | (0.196) | (0.061) | (0.073) |
| logpop | 0.146*** | −0.481*** | 0.262*** | −0.470*** |
| | (0.045) | (0.067) | (0.032) | (0.035) |
| milexpc | −0.0003 | 0.0004 | −0.001** | 0.001** |
| | (0.0005) | (0.001) | (0.0003) | (0.0003) |
| elf | 0.089 | −0.124 | 0.110 | 0.017 |
| | (0.363) | (0.725) | (0.217) | (0.235) |
| kin | 0.177 | −0.460** | 0.392*** | −0.459*** |
| | (0.132) | (0.206) | (0.101) | (0.107) |
| violentmilitant | 0.409** | −0.665* | 0.813*** | −0.645*** |
| | (0.197) | (0.342) | (0.131) | (0.131) |
| prevconcessions | 0.326** | −0.475* | 0.636*** | −0.408*** |
| | (0.131) | (0.261) | (0.098) | (0.108) |
| prevcivwaronset | 0.104 | −0.348** | 0.233*** | −0.429*** |
| | (0.082) | (0.159) | (0.056) | (0.059) |
| Constant | 3.555*** | 3.307*** | | |
| | (0.321) | (0.702) | | |
| Observations | 1,898 | 1,541 | 1,898 | 1,541 |
| Adjusted $R^2$ | 0.475 | 0.542 | | |
| *Note:* | | | *p<0.1; **p<0.05; ***p<0.01 | |

While these preliminary analyses seem to provide quantitative evidence in support of the main hypothesis I put forward, there is an acknowledged concern about endogeneity issue. Further specifications of the models are necessary.

**Assessing endogeneity issues:**

In particular, two types of endogeneity issues need to be addressed: omitted variable bias and reverse causality.

To effectively address reverse causality issues[24], I plan to use instrumental variables (IV) methods. The idea is to find a variable that is correlated with movement fragmentation but is not correlated with the error term in the explanatory regression for state repression. An example here could be an external shock to the GDP of a foreign country that offers external support to the self-determination movement; such a shock could have an impact on the movement's fragmentation and is arguably uncorrelated with the error in the equation for the government's response to the movement. If a good instrument is found, the analysis will allow for a greater level of robustness and consistency. Another technique that I plan to explore in my future quantitative work is a Diff-in-Diff regression. Specifically, building on my model, I will try to identify characteristics of the movement or of its requests that make the effect of fragmentation on government repression stronger and are uncorrelated with movement fragmentation. For example, one may argue that when the movement's requests are of a more private nature, my causal mechanism will be stronger because the neglected groups would have an even stronger incentive to escalate the conflict,[25] and in turn the government would have a stronger incentive to preemptively repress the movement instead of even partially accommodating its requests. Hence, the idea would be to include in my regressions an interaction term between movement fragmentation and the nature of its requests to capture this differential effect.

Moreover, in the first stages of my quantitative work, endogeneity will be addressed also using other techniques. Firstly, one could argue that government repression and fragmentation are both outcomes of a third variable. In particular, a higher level of fragmentation may reflect a weak state, which is unlikely to repress. To account for this type of endogeneity concern, my regressions will include controls that can proxy for state's weakness and fragility.[26] Specifically, for each state-year, I will include the Brookings Institution index of state weakness and the state fragility index from the Center for Systemic Peace (e.g., Marshall and Goldstone, 2007; Rice and Patrick, 2008; Besley and Persson,

[24] In particular, one may argue that the use of repression by the government may lead to the emergence of new groups or the splintering of old ones and hence to an increase in their number. That is, it is government repression that causes higher level of movement fragmentation, and not vice versa.

[25] This is because if the requests of the different groups are about goods that are not easily sharable, the grievance of the neglected group should be stronger than when the requests are about common goods.

[26] Obviously, the right-hand side of my regressions will include other controls (e.g., regime type, log(GDP), neighbor instability, etc.) that are described in detail on pages 14-15 of this document.

2010).

Furthermore, there may still be unobserved heterogeneity across states that affects both repression and fragmentation. In order to control for these unobserved constant factors, I will also include state fixed effects in my regressions. Note that in the sample I consider, there are many state-years in which the government faces multiple self-determination movements with different degrees of fragmentation (e.g., India 1984). By estimating a fixed effect model, this variation in the data I am basically using within-state variation in movements' fragmentation, so that I am effectively controlling for all state-level characteristics that are fixed over time.

Yet, the aforementioned methods may still be subject to reverse causality issues. Along with IV and DID as explained above, a first step to address this issue will be to follow the literature on the effect of fragmentation on civil war onset (e.g., Seymour et al., 2015; Cunningham, 2013, 2012, 2011) and lag my proxy for movement fragmentation, as well as all the other variables on the right-hand side of my regressions, by one or more years. Despite this is not a sufficiently effective technique[27], it should partly address the reverse causality issue since it is highly unlikely that government repression in a given year can affect past levels of movement fragmentation. Secondly, I can recode the number of factions (groups within the movements) to exclude factions that split off of existing factions in a year when repression was used (Cunningham, 2011, 2012). Then, I rerun the models and check whether the size, the direction, and the significance of the coefficients on the adjusted measures of the variable of factions are similar to those of the previous models. Potentially, this method of recoding can suffer from omitted variable bias; in other words, the risk is that, recoding the independent variable, I miss in the regressions factors that drive both the independent and the dependent variable, causing my x-variable to be endogenous. Yet, as mentioned above, including appropriate controls in my regressions and using fixed effects models should mitigate this problem. [28]

Thirdly, along with the large-N quantitative investigation that aims to display generalizable dynamics, I will also perform a detailed qualitative analysis of case studies (e.g., McLauchlin and Pearlman, 2012) This will allow me to look at the data within-year, so that if in a given state-year there is a higher level of both government repression and movement fragmentation, I can stablish which one occurred earlier and can be interpreted as a cause for the increase in the other variable.

[27] I acknowledge that lagged independent variables do not avoid or fully solve the problems of endogeneity of reverse (simultaneous) causality (Bellemare, Masaki, and Pepinsky, 2017). To effectively address endogeneity issues, IV remains the preferable solution, so long as a relevant instrument for X is found.

[28] I acknowledge that this technique can also lead to measurement bias of my independent variable.

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## Appendix

### *Formal Bargaining Model:*
### *The Effect of Within Fragmentation in Self-Determination (SD) Movements on State Behavior.*

Here below, two hypothetical scenarios (a unitary movement and a fragmented movement) to show when and how fragmentation affects the interaction between repression and dissent.[29] The equilibrium concept is the Nash equilibrium, and the games are solved by backwards induction.

1) First case:

Assume there are two relevant actors in a society: the government and the opposition. The opposition is in disagreement with the government about certain issues and makes some demands. In real-world terms, the opposition could be a self-determination group, a party, or an ethnic group, and the disagreement could be about territorial autonomy, independence, the outcome of an election, or political and civil rights. The government also cares about staying in office for the associated rents. Here, I assume that the opposition is a unitary organization that makes two demands.[30] I also assume that the opposition's protest starts as non-violent. The interaction between government and opposition will be modeled as a simple extensive game with complete information.

After the opposition's protests, the government has to decide whether to accommodate or repress the protesters. Here accommodation means offering a credible policy compromise (i.e., concession) that meets the requests of the oppositions. Specifically, the government can accommodate either both demands or only one. For simplicity, each demand has a value $p$, which is the same for the government and the opposition. If the government accommodates both demands, it receives utility $-2p$, and the opposition gets $2p$. If the government accommodates only one demand, it receives utility $-p$, and the opposition gets $p$. Alternatively, the government can decide to repress at the cost $c_r > 0$, which reduces the opposition's final payoff by $r > 0$, representing the opposition's disutility of being repressed. After the government's move, the opposition can respond. Regardless of the government's choice, the opposition can either escalate or acquiesce. Here escalation means open conflict with the government, in which case the government wins with probability $\pi$ and the opposition with probability $1 - \pi$ (where $\pi \in [0, 1]$). For the opposition, escalation has a fixed cost $c_{esc} > 0$, representing the costs of collective action and mobilization of a wide support network; for the government, escalation has a fixed cost $w > 0$, representing the costs to mobilize the military and police apparatus necessary to fight against the opposition, as well as reputation cost at both the national and the international level. If the opposition wins, it gains the benefit associated with

[29] The first model I present here is based on Pierskalla (2009). What is crucially different in my model is that I allow for the opposition to make multiple demands.

[30] The assumption of two demands is made only for simplicity. The same argument goes through even if the opposition makes more than two demands.

overthrowing the government $B_o$; if the government wins, it gains the benefit $B_g$ for remaining in office. Hence, there are four possible scenarios after a decision to protest: (Repress, Escalate), (Repress, Acquiesce), (Accommodate, Escalate), and (Accommodate, Acquiesce).

Before proceeding with the description of the scenarios and the optimal decisions of the players, let me make the following assumptions on the model's parameters. Both the government and the opposition value being in office more than making a policy compromise, i.e., $B_g > p$ and $B_o > p$. Also, I assume that for the opposition, the utility of having at least one demand satisfied is greater than the expected value of escalation, i.e., $p > (1 - \pi) B_o - c_{esc}$; otherwise, the opposition would have no incentive to protest in the first place, but rather it would directly escalate the conflict with the government. Note that this assumption is likely to hold in the data if either the value of the concession demanded by the movement is very high or the movement's probability of winning an open conflict against the government is low. Hence, this assumption is suitable for the struggle of self-determination movements, which usually ask the state for very costly concessions (such as independence or autonomy) but typically represent only a minority of the overall state's population. Moreover, for the opposition, the expected value of escalation is assumed to be positive, so that the opposition may have an incentive to escalate (depending on the government's move).[31] Finally, I assume that for the government, repressing the opposition at first instance is less costly than facing an open conflict ($c_r < w$). This is because for the government, an open conflict is costlier both in material terms, since it requires a larger involvement of the military apparatus, and in reputational terms, nationally and internationally, since the extension of the violence is larger and involves a wider share of civilians.

Now suppose that the government chooses to repress. If the opposition acquiesces, it gets zero concessions and pays the cost of having been repressed $r$. If it escalates, on the other hand, it faces the costs of escalation $c_{esc}$ (along with the cost $r$ of having been previously repressed) but wins the open conflict with probability $1 - \pi$, in which case it gains the benefit associated with overthrowing the government $B_o$. Hence, if the government represses, the opposition would find optimal to escalate. [32]

Now suppose the government accommodates both demands. In this case, the opposition obviously prefers to acquiesce because its demands are fully satisfied (i.e., its payoff equals $2p$). On the contrary, if the opposition escalates the conflict despite of the government's willingness to completely cooperate, it incurs the costs of escalation $c_{esc}$ and only wins the conflict with probability $1 - \pi$. Hence, since (by assumption) the certain gain from having both demands satisfied exceeds the risky

[31] That is, $((1 - \pi)/2)B_o - c_{esc} > 0$. Otherwise, it would never be optimal for the opposition to escalate, i.e., escalation would be a non-credible threat. In this case, it is easy to see that the opposition will always find optimal to acquiesce, and the government would repress or accommodate depending on whether $c_{esc} < p$ or vice versa.

[32] The first case represents a classical escalation scenario (Pierskalla, 2009). After people protest against the government, the government reacts with repression, and the opposition with the population support overcome the collective action problem. Several quantitative studies (Muller and Opp, 1986; Rasler 1996) and experiments (Dickson 2007) have shown the possibility of this scenario.

payoff from escalating, the opposition finds optimal to acquiesce. This is a realistic outcome because in real-world terms, if in response to popular protests, the ruling elite implements a credible policy compromise that fully satisfies all the demands of the opposition, it is unlikely that the opposition is either willing or able to overcome the collective action problem and gain the general population support necessary to escalate the conflict.

Finally, the government can also decide to accommodate only one of the two demands of the opposition. This option reasonably seems the closer to reality; states usually do not accommodate all the demands made, as they want to maximize their payoff with the minimum cost. If the government accommodates only one demand, again two cases are possible. If the opposition decides to escalate the conflict despite the concession offered by the government, it incurs the costs for escalation $c_{esc}$ but gets a payoff $B_o > p$ if it overthrows the government. This move is a risk for the opposition; although the government does not accommodate both demands, it is partially satisfying the opposition's requests. Indeed, if the opposition acquiesces, it gets $p$ (the concession offered by the government). Hence, if $p > (1-\pi)B_o - c_{esc}$ as I assume, the opposition finds still optimal to acquiesce and accept the government's concession.

After a protest, the government has to choose between total accommodation, partial accommodation, and repression, anticipating the optimal response of the movement. Note that for the government, accommodating only one request always dominates accommodating both requests because in both cases the opposition finds optimal to acquiesce. The question is whether the government prefers to partially accommodate the movement, leading to a peaceful agreement, or repress it, leading to an open conflict. If the cost of one concession is smaller than the expected cost of an open conflict post-repression, the government will choose to partially satisfy the movement's demands; otherwise, it will choose to repress the movement in the first place. Hence, to summarize: if $p < c_r + w + (1-\pi)B_g$, the equilibrium is (accommodate 1 demand, acquiesce); if $p > c_r + w + (1-\pi)B_g$, the equilibrium is (repress, escalate).

2) Second case: Allowing for fragmentation

Now assume that there are three players: the government and two opposition groups (within the same movement). Each group makes one demand of value $p$.[33] For simplicity, the two groups are assumed to have the same strength. As in the previous case, the model begins with the protest made (simultaneously) by the two groups, and the protest starts as non-violent.

The government has to choose whether accommodate the two groups or repress them. The government can either accommodate both groups, accommodate only one group and not the other, or

[33] I make this assumption so that the total number and value of the demands made to the government is the same as in the previous model, and the two models can be easily compared.

repress both.[34] If the government accommodates both groups, it receives utility $-2p$, and each group gets $p$. If the government accommodates only one group, it receives utility $-p$, and the accommodated group receives $p$, while the neglected group receives $\alpha p$, where $\alpha$ measures the grievance of the neglected group. When $\alpha = 0$, the grievance is highest, and the neglected group's utility from the concession made to the other group is zero. When $\alpha = 1$, there is no grievance and both groups enjoy equal utility $p$ from the partial concession made by the government.[35] Alternatively, the government can repress the whole movement, paying a cost for repression $c_r > 0$. After the government's move, the two groups can respond independently of one another. As in the previous model, regardless of the government choice, the two groups can either escalate the conflict or acquiesce. However, in this game, the combination of the possible moves is complicated by the fact that the two groups move independently of each another; thus, while one group might decide to acquiesce, the other might decide to escalate. As in the previous model, escalation leads to an open conflict between the government and the group(s) that decides to escalate. In case of escalation, each group has probability $(1 - \pi)/2$ to win the conflict with the government, so that if both groups escalate, the government has probability $1 - 2 * (1 - \pi)/2 = \pi$ to stay in office, as in the previous model when it faces the unitary movement. On the other hand, if only one group escalates, the government stays in office with probability $1 - (1 - \pi)/2 = (1 + \pi)/2 > \pi$, which is greater than the probability of winning against both opposition groups.[36] Importantly, as in the previous model, I assume that for the opposition groups, the expected value of escalation is positive. The other assumptions on the parameters are as in the first model.

What is crucial in this model is that here the government can decide to accommodate only one of the two groups, which is critically different from accommodating only one demand of a single actor. If the government accommodates one demand to a single group, it still partially satisfies the group. But, if the government accommodates the demand of only one group, it dissatisfies the other, which in turn is likely to increase its grievance and hence its incentive to escalate.

If the government accommodates or represses both groups, the optimal response of the opposition groups is the same as that of the unitary opposition in the previous model. The government knows that if it accommodates both groups, it is optimal for both of them to acquiesce, with each group obtaining $p$. In this case, the government has disutility $-2p$. On the other hand, if the government represses,

[34] There are other potential cases. For instance, the government can repress one group and accommodate the other. However, I do not explicitly consider this case because the repressed group's optimal response would be the same as that of a neglected group. In fact, my interest is to explain that if the government accommodates only one (or few) group out of many, the grievance of the neglected group(s) increases, so that the neglected group has an incentive to escalate. Thus, it is reasonable to expect that if the government also repress the 'neglected' group, the group's grievance and incentive to escalate would be even stronger.

[35] Alternatively, the parameter α can be interpreted as a measure of the sharability of the demands made by each group. That is, if the groups demand from the government a "private" good that is not easily sharable, α should be very small or zero; in contrast, if they demand a more "public" good, α should be closer to 1. Also, α can be interpreted as a measure of similarity of the demands: when α is small the demands are quite different.

[36] Here I am implicitly assuming that if both groups decide to escalate, the sum of their strengths equals that of the unitary opposition movement in the previous model, so that the results of the two models can be compared.

both groups will escalate at the cost $c_{esc}$, with each group having disutility $-r$ from being repressed and obtaining the benefit $B_o$ from overthrowing the government with probability $(1 - \pi)/2$. In this case, the government pays both the cost of repression $(c_r > 0)$ and the cost of an open conflict $(w > 0)$ but wins the conflict against the two groups with probability $\pi$.

The most interesting scenario is if the government accommodates only one group but not the other. In this case, the accommodated group will acquiesce, receiving utility $p$. The neglected group, on the other hand, will find optimal to escalate if $\alpha p < \frac{(1-\pi)}{2} B_o - c_{esc}$, i.e., if the utility from the concession made to the other group is smaller than the expected payoff from escalation, which is assumed to be positive.[37] This would be the case, for example, if the requests made by the groups are about private goods or the grievance of the neglected group is strong (i.e., $\alpha$ is small).

To find the equilibria in this model, it is convenient to start from the conditions of the equilibria in the previous model. If $p > c_r + w + (1- \pi)B_g$, Model 1 has the equilibrium (repress, escalate). The same is true in Model 2. In fact, if the cost of accommodating only one group is greater than the expected cost of an open conflict post-repression with both groups, the government will find optimal to preemptively repress regardless of grievance of the neglected group (i.e., of whether the neglected group escalates or acquiesces). First, of course, accommodating both groups is dominated by repression. Now suppose the government accommodates only one group. If grievance is small, the neglected group also acquiesces, and the government gets $B_g - p$, which is smaller than $-c_r - w + \pi B_g$. On the other hand, if grievance is high (i.e., $\alpha$ is small), the neglected group escalates, and the government gets $-p - w + \frac{1+\pi}{2} B_g$, which is still smaller than $-c_r - w + \pi B_g \; if \; p > c_r + w + (1- \pi)B_g$. Now let us consider the case $p < c_r + w + (1- \pi)B_g$, for which Model 1 has equilibrium (accommodate 1 demand, acquiesce). In this case, the grievance of the neglected groups becomes relevant. In fact, if grievance is low (i.e., $\alpha p > \frac{1-\pi}{2} B_o - c_{esc}$), the neglected group optimally decides to acquiesce, and it is easy to see that the government finds optimal to accommodate only one group, so that the equilibrium is similar to that in the previous model: (accommodate 1 demand, acquiesce, acquiesce). However, if grievance is high, (i.e., $\alpha p < \frac{1-\pi}{2} B_o - c_{esc}$), the neglected group optimally decides to escalate. In this case, since the government's fixed cost of escalation is greater than the cost of repression, accommodating only one demand cannot be optimal. Rather, if the cost of accommodating all the requests of the movement is greater than the expected cost of an open conflict with both groups post-repression, the government will find optimal to preemptively repress the movement. If the cost of concessions is small, on the contrary, the government will accommodate both groups. Hence, to summarize: if $p > c_r + w + (1- \pi)B_g$, both models make the same prediction: the government will repress in the first place, and the opposition(s) will escalate. On the

[37] For an explanation of the rationale of this assumption please see footnote n. 17.

other hand, if $p < c_r + w + (1-\pi)B_g$, Model 1 predicts that the government will always partially accommodate the request of a unitary movement, whereas Model 2 predicts that the government will decide to preemptively repress a fragmented movement with high levels of grievance or, in the unlikely case that the total cost of concessions is sufficiently small, accommodate all groups in the self-determination movement. In Model 2, partial accommodation by the government is an equilibrium outcome only if grievance is low. That is, in Model 2, preemptive repression is an equilibrium outcome for a larger set of parameters than in Model 1.[38]

What this model wants to highlights is that: when the government has constraints in accommodating the demands of many groups[39] in a way that sufficiently satisfies all the actors involved, it has to choose between accommodation and repression anticipating the risk that if it accommodates only one (or few) group, those neglected finds optimal to escalate. What is crucially different in Model 2 with respect to Model 1 is the role of opposition's fragmentation and the consequent constrains to the government's ability to settle the dispute. When the government faces internally divided opposition movements, coming to deal with only one (or a few) group(s) is likely to increase the grievance of those neglected and, consequently, escalation. For this reason, I expect that when governments face internally divided movements, the use of repression will be more frequent than when the opposition movements are cohesive.

[38] This statement is similar to a comparative statics result. Unfortunately, since my model is not general enough to have a variable number of groups N, I cannot make comparative statics in the standard way.

[39] Constraints that are even more severe if the demands conflict each other.