

RELATIVE DEPRIVATION, THE CONSTRUCTION OF IDENTITY, AND REBELLIOUS  
COLLECTIVE ACTION: AN APPLICATION OF INTEGRATED THREAT THEORY

by

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(Under the Direction of Jeffrey Berejikian)

ABSTRACT

This paper attempts to better understand the role that relative deprivation (RD) plays in violent collective action by reconsidering the function that identity has in minority-group mobilization. I use integrated threat theory (ITT) to show that past attempts at understanding this linkage have been incomplete because they fail to appreciate the importance of cultural discrimination. The importance of state-level behavior has also been undervalued in this respect and should be considered to be as important as the “framing” efforts of minority-group elites for violent behavior and the construction of identity. Results from a test of the Minorities at Risk (MAR) dataset provide supportive evidence for these propositions.

INDEX WORDS: Relative Deprivation, Identity, Collective Action, Rebellion, Constructivism, Framing, Decision Making

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## CHAPTER 1

### INTRODUCTION AND LITERATURE REVIEW

#### Introduction

This paper re-examines the role of grievances in minority-group rebellion by integrating social psychological theories of relative deprivation (RD) and identity<sup>1</sup> into current theories of intrastate conflict. Currently, the importance of relative deprivation as a mobilizing factor is either downplayed or seen as contingent on the ability of an organization to mobilize its members around a common cause. The influence of relative group differences can be clearly seen in international relations' theory of realism (see Grieco, 1988; Powell, 1991, & Waltz, 1979), social psychology's theory of realistic group conflict (LeVine & Campbell, 1972; Sherif, 1966), evolutionary psychology (Ross, 2001), and prospect theory (see Kahneman & Tversky, 1982). Therefore, I argue that calls for RD's dismissal as an explanatory variable are ill-advised.

The mobilization approach could be improved upon by borrowing more heavily from social psychology to better understand the role that identity plays in mobilizing people around RD. In addition, the success of micro-mobilization attempts (i.e., by minority-group elites) needs to be seen as contingent on macro-level variables (e.g., state-level behavior). Specifically, by better understanding the role that identity plays in mobilizing people in response to RD, we can re-evaluate the importance of different types of state discrimination against minority groups for collective action (see Fearon & Laitin, 2000).

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<sup>1</sup> The term "identity" has been used widely and is oftentimes poorly defined (see Brubaker & Cooper, 2000). I use identity in the sense of Tajfel and Turner's (1979) social identity theory in that it is meant to capture one's subjective sense of attachment to a social group.

I use integrated threat theory (ITT) to unify our understanding of RD and identity and to demonstrate the importance that cultural discrimination (e.g., against religions, languages, etc.) has for collective action. Due to the critical role that identity plays in mobilizing people around RD and the idea that cultural discrimination increases identity salience, I argue that we must consider these three variables interactively in order to better understand the role of RD in rebellion. Previous scholarship has both failed to take seriously the importance of cultural discrimination and to conceptualize the nature of RD and collective action in this manner. In addition, I argue that though ITT is used primarily to predict individual attitudes, it can also be used to predict collective behavior by generating assumptions about the role that identity plays in collective action. I claim that identity strength acts as a type of preference re-ordering mechanism and/or as a type of enforcement mechanism. Thus, high levels of cultural discrimination and identity strength can turn RD from a marginal explanatory variable into a powerful predictor of collective violence.

In sum, certain structural conditions (e.g., discriminatory policies) that are beyond the direct control of the minority group's micro-mobilization efforts can have important effects on the likelihood of rebellion because of their effects on the construction of RD and identity. By using ITT we can better understand the role that RD plays in rebellion and couch micro-mobilization efforts in a broader understanding of constructivism and identity formation.

#### Traditional collective action research

The position that RD should be marginalized as an explanatory variable stems largely from research on resource mobilization, political process, or collective action/rational choice theories. Most resource mobilization theories hold that the abilities and strengths of an organization take precedence over RD in determining its potential for collective action

(McCarthy and Zald, 1973, 1977).<sup>2</sup> Political process theories hold that conditions of weakness or openness in the dominant group or state can encourage collective action (Gamson, 1990; McAdam, 1999; Tarrow, 1998; Tilly, 1978). The collective action school of thought has been largely integrated with rational choice reasons for participating in collective action. Olson's (1965) work laid the foundation for this theoretical orientation and Lichbach's (1995) work applied significant portions of it to political rebellion. These theories hold that it is irrational for an individual to participate in the procurement of a public good unless specific conditions like selective incentives or enforcement mechanisms are put in place (Olson, 1965).<sup>3</sup> In fact, Lichbach (1995) pushes this point further and claims that relative deprivation is neither a necessary nor sufficient precondition for collective action.<sup>4</sup> Collier and Hoeffler (2005) have similarly proposed that the propensity to rebel is based on the chances of success, not the desire to rectify grievances. Collier and Hoeffler (2005) refer to the importance of "greed" in rebellion as opposed to grievance. In other words, one conclusion that could be drawn from these theories is that materially endowed, well-organized groups should rebel if they perceive their chances of being successful to be high enough. Grievances should rarely, if ever, factor into their decision making calculus.<sup>5</sup>

There is significant support for various empirical implications of these theories. Studies of civil war at the state level have shown there to be significant relationships between measures of state strength, stability, population, and even its percentage of mountainous terrain on the

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<sup>2</sup> Some resource mobilization theorists (see McAdam, 1996) do incorporate the framing of grievance into their models. I treat the idea of framing separately below.

<sup>3</sup> The expectancy-value theory of collective action in social psychology shares various commonalities with these approaches as well (see Klandermans, 1997).

<sup>4</sup> Lichbach (1990) uses game theoretic models to show that, at best, relative deprivation can force actors to choose between what he calls "Samson's choice" – accepting an inferior position or attacking the dominant group and dramatically decreasing everyone's well-being.

<sup>5</sup> This is merely a summary of these theories and fails to capture their full scope. For a good review with an eye towards unification, see Lichbach (1998)

likelihood of rebellion (Fearon & Laitin, 2003). Gurr (2000) shows that organizational capacity is an important determinant of rebellion at the minority-group level as well. These issues all deal with aspects of the resource mobilization, political process, or collective action/rational choice literatures and show little support for any type of grievance-violence link. Large-n studies at the minority-group level by Gurr (2000) and Jenne, Saideman, & Lowe (2007) show only limited empirical evidence for the importance of RD on collective action. As Gurney and Tierney (1982, abstract) state:

The general conclusion reached is that while the relative deprivation perspective was an advance over earlier approaches which viewed social movements as resulting from the expression of irrational impulses, the relative deprivation perspective is itself affected by too many serious conceptual, theoretical, and empirical weaknesses to be useful in accounting for the emergence and development of social movements.

However, many scholars have questioned the veracity and explanatory power of these claims in addition to their dominance in the study of conflict. Such criticisms have come from various disciplines but tend to center on the general themes that the meaning of reality is often socially constructed, or framed, and that the importance and dynamics of identity have been under-appreciated in the above mentioned literatures.

### Framing

Sociologists have tended to make these calls in terms of either decrying the lack of attention given to framing processes or the systems of cultural meaning that infuse social

movements. Generally, they label their approach as the “new social movements” paradigm or focus on the importance of how social movement organizations “frame” issues to promote collective action. While these approaches take identity and RD more seriously than traditional research they are still bound to the micro-level of analysis. Though they are more attuned to issues of identity and the construction of meaning, their inability to account for actions taken at the state level devalues them for our purposes.

Scholars who focus on the framing of social movements (Benford and Snow, 2000; Chong & Druckman, 2007; Druckman, 2004; McAdam, 1996; Snow, Rochford, Worden, and Benford, 1986) have attempted to better understand how the link between context and action can be aided by effectively generating collective action frames. As Benford and Snow (2000) say of framing: “[It] denotes an active, processual phenomenon that implies agency and contention at the level of reality construction” (p.614). These types of studies typically focus on the “core” tasks of effective framing mechanisms – diagnostic framing, prognostic framing, and motivational framing (Benford and Snow, 2000). Generally, the idea is that movement leaders can construct the meaning of reality in such a way that collective action seems appealing and justified.

Moore and Jagers (1990) explicitly make the argument that the study of rebellion should be marked by a synthetic approach that unifies schools of thought. They theorize that Gurr’s model of RD (1970), Tilly’s model of mobilization (1978), and Skocpol’s argument about state strength (1979) can be unified under the banner of framing. Namely, their

model suggests two hypotheses which have not been suggested in the literature.

First, appeals must psychologically connect individuals with a larger category of

people experiencing similar types and/or levels of deprivation before they can take advantage of their collective strength. Second, the model suggests that the translation of individual into fraternalistic deprivation is a necessary condition for armed revolt (p.35).

They further argue that by combining this approach with an understanding of Skocpol's structural analysis we can understand when appeals are most likely to be made (when the state is weak), and to work (when they appeal to identity and fraternal RD).<sup>6</sup> In both their theory and the study of framing more generally, the social movement organization or minority group takes precedence. Their construction of identity and framing is clearly at the micro-level of analysis. I argue that this micro-level of analysis does not portray the complete picture of the relationship between RD and identity construction. Namely, while micro-level appeals are certainly important, broader patterns of identity construction may also be important and may in fact limit or enhance the potency of framing and micro-appeals. It is to these broad constructivist trends at higher levels of analysis (e.g., state behavior) that we must turn if we are to more fully understand how and why RD, identity, and micro-mobilization efforts lead to collective action.

### Constructivism

To more fully understand how state behavior can influence minority groups' construction of reality, we must turn to literature in political science. These approaches to understanding political behavior can be couched generally under the umbrella of constructivism which, at its

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<sup>6</sup> Lindström and Moore (1995) test an implication of this model and find, using 3SLS, that RD matters only to the degree an organization can harness it. They consider organizational cohesion and identity to be critical to this harnessing effect. However, as we see in models two and three in table two, neither the interaction between discrimination and identity nor between discrimination and organizational strength are statistically significant. Given that these models were run using an ordered logistic regression and Lindström and Moore (1995) used 3SLS, the models may not be directly comparable. However, it is notable that an *implication* of their theory seems to lack substantive support. I argue that one reason for this inconsistency could be their level of analysis.

core, says that actors' preferences are socially constructed and not simply interchangeable (Farrell, 2002; Wendt, 1992). Issues like norms and identities often take center stage in constructivist studies at both the international and intrastate levels. Constructivism allows us to transcend the group-level of analysis and question the construction of identity in terms of state actions towards the minority group. By integrating this position with social psychological research on identity we arrive at the conclusion that cultural discrimination has powerful effects for the transformation of RD into collective action.

Numerous scholars have considered the role that identities play in intrastate conflict. However, most of the quantitative attempts to integrate identity into models of rebellion have not achieved our goal of generating a more holistic approach to understanding how and when RD matters. Most of the quantitative work on the role of identity in conflict looks at ethnic or linguistic fractionalization as a cause of conflict (Fearon & Laitin, 2003), or attempts to discern whether ethnic versus non-ethnic civil wars are similar in onset, duration, and termination (Kaufman, 1996; Reynal-Querol, 2002; Sambanis, 2001; Tir, 2005a; Tir, 2005b). These types of studies, however, do not delve into the microfoundations of identity, nor do they commonly consider how identities are constructed or what that construction means for the likelihood of conflict in the presence of RD.

To address these concerns, Fearon and Laitin (2000) analyze a series of qualitative case studies (Brass, 1997; Deng, 1995; Kapferer, 1988; McGarry and O'Leary, 1995; Prunier, 1995; Woodward, 1995) and directly examine the role that the construction of identity plays in political violence. They conclude their study by saying that the construction of conflictual identities can happen because of elite manipulation, "on the ground" formation by non-elites, or because of broader discursive functions that have yet to be fully understood. They note that each of these

approaches still leaves interesting puzzles unanswered (e.g., why people follow, if they are duped by leaders) but that these forces are not necessarily in conflict. Rather, they conclude:

Implicit in our presentation is an assumption that the rigid divide in methodological debates between culturalist and rationalist accounts can be bridged. The strategic theories linking individuals (whether elites or masses) to ethnic violence and the discursive theories linking discourses to violent behaviors are all constructivist in the sense that they posit the content and boundaries of ethnic groups as produced and reproduced by specific social processes. The specification of what these processes are, the delineation of the precise mechanisms by which they lead to ethnically based violence, and the testing of these specifications with a sample of cases exhibiting both high and low violence remain challenges to rationalist and culturalist constructivists alike.<sup>7</sup> (p.874)

Kaufman's (2001, 2006a, 2006b) work on the "symbolic politics trap" provides additional evidence for the impact that appeals to identity-based issues can have on collective action and extreme violence. Kaufman's theory focuses primarily on the appeals that leaders make to followers but he notes that such appeals can be a function of broader discourses that leaders operate within. Hence, along with Fearon and Laitin, Kaufman's theory allows for constructivism to happen at different levels of analysis. I argue that the discursive level of analysis is understudied regarding the role of RD on collective behavior. Specifically, certain types of discourses may lead state officials to advocate different types of discrimination against,

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<sup>7</sup> See also Brubaker and Laitin (1998) for a critique on the problems with the casual use of the phrase "ethnic conflict" to describe all types of intrastate violence.

and treatment of, minority groups. These behaviors can then imbue otherwise similar realities with varying degrees of meaning, and in the case of RD, capacities to motivate collective action. They could also enhance or mollify micro-mobilization attempts as advanced by the framing paradigm in the sense that the efforts of minority-group elites are nested in a broader pattern of meanings and values that are, at least in part, affected by state behavior.

However, none of these constructivist theories explicitly links RD with identity and is thus of little use for our specific purpose. Aspinall's (2007) study, however attempts to do just that. Aspinall uses a case study approach to demonstrate that, at least in Banda Aceh, grievances only led to political violence after they were intertwined with Achinese identity conceptions. Even though this approach is very case specific, it does give us reason to "to think of grievances about natural resource exploitation not so much as pristine starting points of conflict, divorced from the wider systems of meaning in which they are embedded, but rather as arenas in which wider contestations over identity and belonging are played out" (p.968-969). These systems of meaning were in part conditioned by how the state handled Achinese identity in the past *and* how Achinese elites framed their appeals in terms of this past.

Specifically, the Achinese were once praised and given elevated status in the Indonesian government and had more recently seen this treatment decrease and even reverse. It was because of this state-level behavior that Achinese elites were then able to frame Achinese identity and RD in such a way that promoted violence. Aspinall observes that in other provinces with similar resource issues, the reason that conflict "did not occur is at least partly attributable to the fact that the two provinces did not experience the same degree of institutionalization and celebration of local ethnic identity as occurred in Aceh" (p.966). Elites in these provinces did not have the same identity base as those in Aceh and were thus not able to frame grievances in a way that

could generate violence. Aspinall's piece is a clear example of the importance of conceiving of the construction of identity and grievance as *at least* a two-level process that includes actions of the state *and* how minority group elites and organizations frame those actions.

In sum, both micro-level framing and macro-level constructivism speak to the power of identity and its ability to mobilize people in response to RD. Framing theories focus on the ability of political elites to generate a shared sense of grievance and efficacy that is often rooted in a strong sense of group identity. Constructivist theories coincide with this approach but also note that micro-level appeals are nested within higher levels of identity construction that depend on discourses and the behavior of the state towards the minority group. However, both of these theories draw little direct logic from social psychology despite the fact that social psychological theories have invested far more effort in the study of the behavioral bases that underlie identity and intergroup relations. Simply saying that state-level behavior can have direct effects on the mobilization of RD via identity is insufficient for theory building in this respect. Social psychology can give us the leverage necessary to elucidate this link and better understand the role that state discrimination plays in fomenting minority rebellion. In so doing we can take on Fearon and Laitin's (2000) "challenge" to specify at least some of the "precise mechanisms" that can lead to the violent construction of identity (p. 874).

## CHAPTER 2

### SOCIAL PSYCHOLOGICAL RESEARCH ON COLLECTIVE ACTION

The social psychological literature contains ample research on all of the issues listed above and provides us with the theoretical leverage necessary to resolve, at least in part, the debate about the role of RD in collective action. Though there has yet to be a unified theory of the importance of RD, social psychologists generally agree that a sense of collective RD and identity strength is necessary, if not sufficient, for mobilization and support of collective action. Hence, identity plays a key role in mobilizing RD just as it does in political science and sociological theories. However, I argue that given the importance of identity, these theories need to consider the role that threats to identity can play in mobilization. Specifically, threats that are not directed against a group's political or economic well-being, but rather at their language, culture, or way of life should increase the salience and cohesiveness of identities and thus increase the likelihood of collective action. These "symbolic" issues have been largely neglected in the political science and sociological literatures on violent collective action. We find support for this idea in integrated threat theory (ITT) and are able to use it to resolve, at least in part, the question of how state-level behavior, and the types of grievances it induces, can influence the mobilization of RD at the minority group level.

Runciman (1966) was the first to theorize that there are at least two kinds of relative deprivation – egoistic and fraternalistic. Put simply, if an individual feels deprived compared to another individual, he or she will have feelings of egoistic deprivation. However, if the individual feels that his or her in-group is discriminated against as a whole in comparison to an out-group, the person will feel fraternally deprived. Crosby (1976, 1984) defines relative

deprivation as being the difference between what people want and what they have; hence, people can experience this difference at group, individual, or both levels.

This distinction between egoistic (personal) and fraternalistic (collective) RD is critical for the study of behavior and intergroup relations. In fact, egoistic RD is linked to individual level action and personal stress – not to collective action and social change (Dubé & Guimond, 1986; Hafer & Olson, 1993; Walker & Mann, 1987). However, measures of collective RD are strongly related to support of, or participation in, collective action.<sup>8</sup> Smith and Ortiz (2002) provide meta-analytic evidence to support the theory that collective RD promotes collective action more strongly than does egoistic RD. They continue to say that “...the pessimistic reviewers of the RD literature appear to be premature. RD is a powerful concept if it is measured correctly” (p.111).

As Abrams and de Moura (2002) note, “It turns out that psychological attachment to the group is also a strong motivator [of collective action]” (p199). Petta and Walker (1992) and Abrams and de Moura (2002) make the point more explicitly by saying that theories of collective RD implicitly assume that individuals are able to differentiate between relevant social groups, identify with at least one of them, and consider internalized identities to be important to them. That is to say, collective RD *assumes* that these preconditions are in place; we must turn to theories of social identity to better understand how they actually work.

The foundations of social identity theory (SIT) and social categorization theory (SCT) lie in the dramatic impact that artificially constructed groups (i.e., “minimal groups”) can have on human behavior (see Tajfel & Turner, 1979, 1986). Tajfel’s minimal groups paradigm showed that resource scarcity was not necessary for intergroup conflict; rather, identities themselves

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<sup>8</sup> Guimond & Dubé-Simard (1983) also found that collective RD predicted nationalistic attitudes in Francophone Canada.

could encourage conflict (Tajfel, 1970). Specifically, dividing people into meaningless groups and asking them to interact with other similarly constructed groups led to these minimal groups becoming catalysts for intergroup conflict. Others continued this line of research with social categorization theory (SCT) (Turner, et al., 1987). SIT and SCT both hold that people perceive their social worlds in terms of categories into which they place themselves and others. In doing so, it can account for differences in individual and collective behavior that would otherwise go unexplained (Brewer & Silver, 2000; Haslam, 2000; Hogg & Abrams, 1988). As Abrams and de Moura (2002) state “it offers some insight into why individuals will act as a group, for the interest of the group and in order to achieve a group goal – even when the personal costs may be very high” (p.199).

Tajfel (1978) and Tajfel and Turner’s (1979) most important proposition to consider for our purposes is that in-group identification dramatically impacts participation in, or support of, collective action. Low in-group identification more often than not leads to support for strategies of individual mobility while high in-group identification often leads to support for strategies of collective mobilization in response to grievance (see Abrams & de Moura, 2002; Ellemers, Spears, & Doosje, 1997; Haslam, 2000; Kelly & Breinlinger, 1996; Mummendey, et al., 1999b; Simon et al., 1998;). Kawakami and Dion (1993, 1995) directly tested this identity-RDT link and find that, as SCT would predict, an individual’s salient identity (e.g., group or personal) is very important in determining what type of action he or she pursues. Specifically, they find that salient group identities lead to collective action. Mummendey, et al. (1999a) find further support for a similar integration of SIT and RDT theories. Hence, a strong sense of group identity seems

to be vital for collective action and is likely directly related to the transformation of egoistic RD into collective RD.<sup>9</sup>

However, Jost (2004) finds that even after over five decades of research into relative deprivation, social psychologists have yet to produce a model that fully integrates all of their findings. It seems that other scholars can take some solace in their ambiguous findings on the topic as well. Though there is much evidence to support various aspects of research on relative deprivation (e.g., the impact that group identity has on collective action), no one has yet put forth a model that maintains theoretical parsimony and predictive power. More importantly, I argue that these theories neglect the impact of identity-based discrimination against particular languages, religions, etc. Given the centrality of these issues to identity (see Sears, et al., 1979; Sears & Henry, 2005; Tajfel & Turner, 1986), I argue that we must find a theory that incorporates as many of the above findings as possible and takes the impact of cultural discrimination seriously.

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<sup>9</sup> Social identity theory is also key to understanding other factors such as legitimacy that affect collective action in response to RD as well (see Ellemers, 2007).

## CHAPTER 3

### INTEGRATED THREAT THEORY

In this section I present integrated threat theory (ITT) (Corenblum & Stephan, 2001; Stephan, Diaz-Loving, & Duran, 2000; Stephan & Stephan, 2000; Stephan, et al. 2002) and show that it holds great potential for resolving the debate surrounding the role of RD in collective action. First, I summarize the theory. Then I generate auxiliary assumptions that are necessary to test ITT's implications for collective action. Finally, I present two hypotheses on the role of RD in collective action that use ITT as their core theoretical framework.

#### Summary

Stephan et al. (2002) put forth ITT as a comprehensive approach to understanding how individual attitudes change given various social situations. Their work encompasses many of the large schools of thought in social psychology – social identity theory, realistic group conflict theory, and symbolic politics, to name a few. Additionally, integrated threat theory is ideal to use when referencing minority groups because it was developed with the intent to explain minority attitudes towards majority groups in contrast to most other research which focuses on majority group attitudes towards minorities. In this sense, it is ideal for resolving the twin concerns about the importance of cultural discrimination and using the state as our level of analysis.<sup>10</sup>

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<sup>10</sup> I do not contend that ITT provides the only theoretical umbrella that could be of use in synthesizing the debate on relative deprivation. However, it does provide us with at least a partial theoretical umbrella that provides a more comprehensive understanding of some variables claimed to be relevant by scholars than does any other theory. In addition, micro-mobilization theories could certainly benefit by borrowing from ITT as well. However, only considering ITT's implications at the minority-group level does not take advantage of its ability to help resolve the levels of analysis problem mentioned above.

ITT's emphasis on symbolic threats is critical. These threats can be anything that challenges an individual's worldview but that does not necessarily endanger their material well-being. Sears, Hensler, and Speer (1979) proposed an idea similar to this and used it to explain the attitudes of White people who were not directly involved in America's busing conflict. Sears posited that their attitudes were similar to those of Whites who were directly involved because the symbolic threats to their identities were powerful motivations even though they lacked substantive, material threats (see also Kinder & Sears, 1981; Sears & Henry, 2005). Adorno et al. put it clearly by saying that in the presence of symbolic threats "the feeling of difference is transformed into a sense of threat and an attitude of hostility" (as cited in Stephan et al., 2002, p.143). Given the centrality of identity to the impact of RD on collective action, I argue that such symbolic threats should be key components of any theory we are to use, and that previous scholars have poorly conceptualized this relationship.

Integrated threat theory's core is that realistic threats, symbolic threats, and intergroup anxiety all increase negative racial attitudes. Stephan et al. (2002) define realistic threats as being feelings that the out-group holds a dominant position and is able to hurt members of the in-group. One item in this index variable is "Whites have too many positions of power and responsibility in this country" (p.1245). Again, symbolic threats are threats against a group's way of life, value systems, or world views brought on by differences between the in- and out-group. Finally, intergroup anxiety is less important for our purposes here but asks participants if they would feel awkward or anxious when interacting with out-group members.

Stephan et al. (2002) tested the idea that these core threat types could moderate a wider range of other threats and group inequalities. Specifically, they considered the interaction between negative stereotypes, negative contact, in-group identification, perceived intergroup

conflict, and status differentials each with the three threat types listed above. Negative stereotypes are measured by assessing the degree to which participants held negative perceptions of out-group members and negative contact measured the frequency that participants experienced a range of negative behaviors because of the out-group. In-group identification used a standard social psychological set of questions to assess how much participants' identities matter to their self-images. Perceived intergroup conflict was captured by measuring responses to questions like "Relations between Blacks and Whites have always been characterized by conflict" (p.1246). Finally, perceived status differences were measured by responses to statements like "There is a great difference between the status of Blacks and Whites in this society" (p.1246). The results of their analysis are as follows:

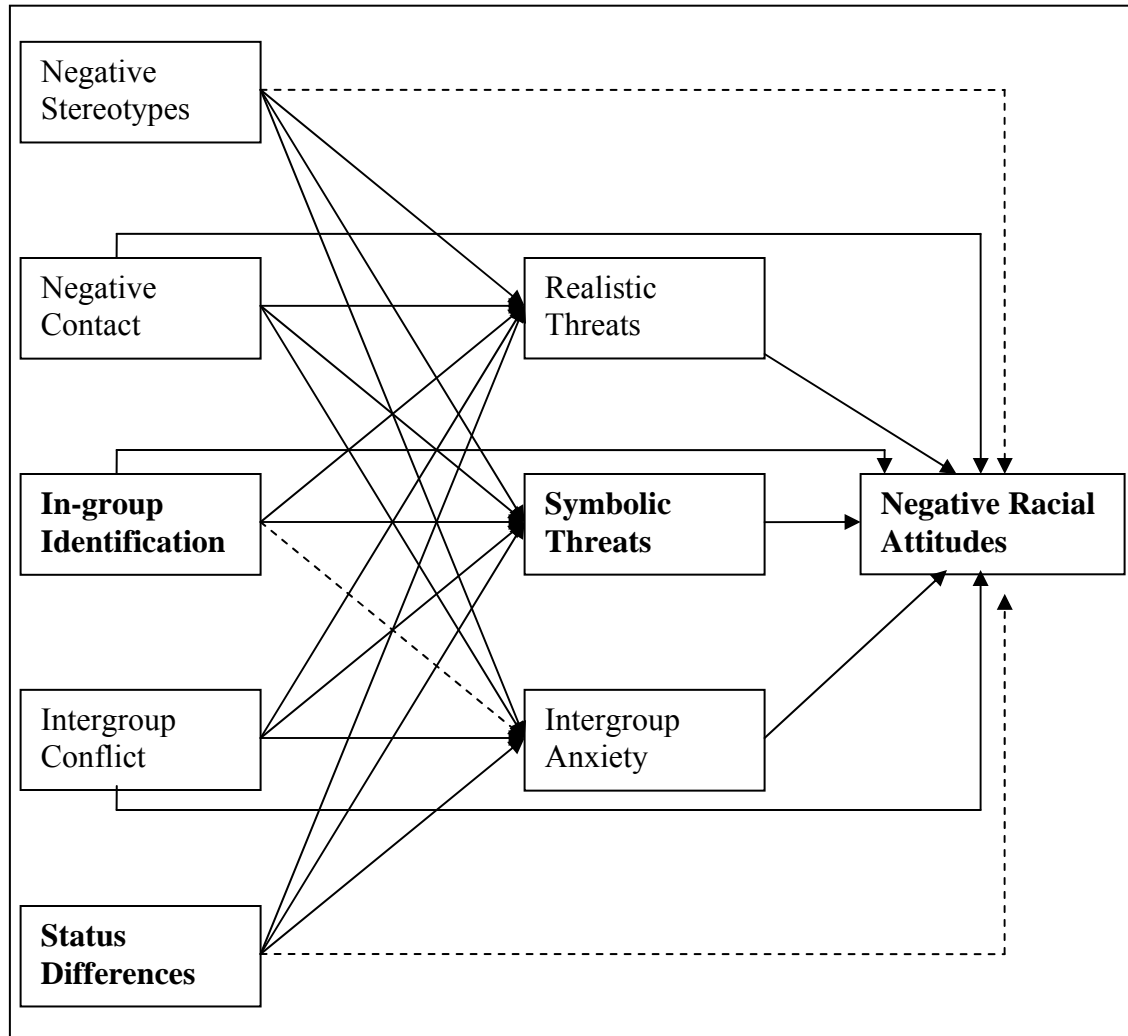


Figure 1: Stephan et al.'s (2002) integrated threat model with antecedent variables

This path diagram is a simplified reproduction of the one that Stephan et al. present in their article (2002) (bold text mine). The dashed lines represent nonsignificant path coefficients and the solid ones are significant,  $p < .05$ . All significant lines have positive path coefficients, meaning that realistic threats, symbolic threats, and intergroup anxiety amplify the impact of almost all of the five antecedent variables on negative racial attitudes.

We can use components of the model to test for a better way of conceptualizing grievances rather than simply throwing them into a model with controls. Namely, I argue that we can capture each of the bold faced variables above – status differences, in-group identity, and

symbolic threats – in an accurate and valid manner, and more importantly, in a way that is theoretically interesting for our debate between traditional and constructivist understandings of ethnic conflict. Even though we cannot account for the entire model, we may be able to gain a better understanding of minority group rebellion by incorporating parts of the model into our theory.<sup>11</sup> As seen below, the simplified model would look like this:

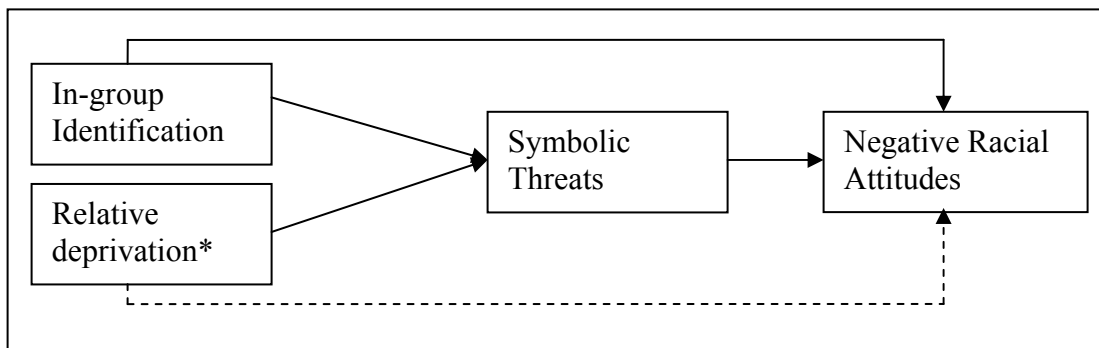


Figure 2: Simplified ITT model

\* I argue that status differences are a key component of relative deprivation and that we can use the terms interchangeably here.

Given the interactive nature of these relationships, it would be possible to consider the effect of any one variable conditional on the others. In fact, the model implies a three-way interaction between in-group identification, relative deprivation, and symbolic threats. If we take status differences to be a central part of relative deprivation, then one reason for RD’s insignificance regarding collective action could be that we have failed to conceptualize it accurately. Rather than being a straight line from RD to attitudes, ITT shows that both in-group identification and symbolic threats interact with RD to affect attitudes. ITT is thus able to take into account the well-supported finding that in-group identification moderates the impact of relative deprivation *and* allows us to consider the impact of symbolic politics as well. In

<sup>11</sup> As Jost (2004) notes, much of social psychology aims to parse finer and finer distinctions and can be guilty of failing to search for broad similarities. Hence, our insensitivity to such nuance here may be justifiable in that we are at least taking a somewhat integrated theory and applying it to a large number of real-world cases.

addition, it is specifically designed to consider how majority-group behavior affects minority-group attitudes.

### Application

Thus, ITT can answer both of our concerns – the desire for a behaviorally accurate model and our concern about levels of analysis. Its behavioral base is clear given its development and relationship with dominant schools of thought in social psychology. In addition, the fact that it considers the role of dominant-group behavior on minority-group attitudes corresponds to our concerns about state-level versus minority group-level constructivism. While it does not engage the debate of discursive constructivism as delineated by Fearon and Laitin (2000), it does test the impact of a possible outcome of a particular discourse – whether or not a state considers it wise or necessary to repress a minority group’s culture.<sup>12</sup> In this sense we can use ITT to better understand the impact of state behavior on the likelihood of minority-group rebellion and provide at least one way of responding to our behavioral and levels of analysis concerns.

However, it is important to note that ITT cannot be directly applied to collective action, given that it has been used primarily to predict attitudes, and not behavior.<sup>13,14</sup> By moving from a model of individual attitude formation to one of collective action we are committing the reverse ecological fallacy. That is, we are inferring characteristics of group behavior from characteristics of individual attitude. Drawing from the literature on collective action, we know that rebellion attempts to provide a collective good – regime change, autonomy, etc. Given that

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<sup>12</sup> Even if the decision to repress a group’s culture does not come from a specific discourse, the point is that state-level behavior must be considered in addition to the framing attempts of minority-group elites.

<sup>13</sup> Indeed, this critique applies to much of the research on relative deprivation (see Wright & Tropp, 2002). Though this is not entirely the case, there certainly is a bias towards attitudinal research for the obvious reason that people actually engaging in risky collective action may not be open to sharing information with researchers. The quantitative research that has been done on actual behavior seems to support most of the findings that speak specifically to attitudes (see Simon et al., 1998).

<sup>14</sup> Tausch et al. (2007) use portions of ITT to examine how status differences affect intergroup contact in Northern Ireland.

the outcome of rebellion is a public good and can thus not be entirely restricted, it is rational for an individual to shirk and avoid the costs associated with participating in the rebellion, regardless of his or her attitudes.

I argue that this critique is not as problematic as it first appears. We know from Stephan et al.'s (2002) research that symbolic threats strengthen the relationship between identity strength and attitudes. We also know from other social psychological research that identity strength amplifies the relationship between RD and collective action (see Abrams & de Moura, 2002). I argue that we can assume the impact of identity strength and RD on *collective action* is also strengthened by symbolic threats just as it is in the *attitudinal* domain. The reason that symbolic threats magnify the impact of identity strength is because of the nature of such threats. They deal with threats towards an individual's way of life, values, and worldviews – all of which are key components of an identity.

Further, I argue that identity strength increases the likelihood of collective action in two ways. First, identity strength re-frames the collective action problem from the individual to the group level. That is to say, a strong identifier may consider the group's interest to be more important than his or her individual self-interest. While it makes little sense for an individual to fight for a public good, it does make sense to take risks to defend one's identity, if one's identity is wedded deeply enough to one's self image and worldview, and if that worldview is under attack. That is to say, strong identities and symbolic threats may re-order preferences such that people find it unappealing to shirk, even though doing so is individually rational.

Second, I claim that the degree to which an individual identifies with a particular group also serves as a kind of enforcement mechanism – though not in the traditional sense. To the degree that an individual identifies with a group, he or she will avoid shirking because doing so

would be, in some sense, tantamount to leaving the group. Given the importance of identities and the emotions evoked in betraying them, individuals with a strong sense of group identity will be more likely to act collectively than those with a weaker sense of group identity.<sup>15</sup> Again, symbolic threats to an identity magnify this relationship.

In sum, ITT provides empirical evidence that symbolic threats and identity strength interact to enhance the impact of RD on *attitudes*. This effect is due to the nature of symbolic threats and the fact that they threaten issues that are central to social identities. We also have a logic that allows us to extend this attitudinal model to the domain of collective action by claiming that identity strength re-orders preferences and/or acts as an enforcement mechanism. In addition, the social psychological literature is clear about the positive effect that identity strength has on collective action. We can further assume that, as in the attitudinal model, symbolic threats enhance the effects of identity strength and RD on collective action. The theoretical leap inherent in using an attitudinal model to predict collective action is thus not as large as initially thought and can be bridged by generating reasonable assumptions about the role of identity in collective action. I argue that since ITT accounts for identity strength as one of its antecedent variables, we can use it to predict collective action in response to RD without falling victim to the reverse ecological fallacy.

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<sup>15</sup> Note that this logic does not assume the presence of traditional organizational variables nor the presence of social costs incurred from not participating. Rather, the enforcing effect of an identity stems from an individual's internal reactions to betraying it.

CHAPTER 4  
HYPOTHESES

In this section I break ITT into two testable hypotheses. The first of these hypotheses is simply to measure the size and statistical significance of the interaction effect between RD and symbolic threats. I further argue that this interactive relationship must be considered separately in high and low identity groups to account for the role of identity strength. To test this hypothesis I compare the coefficient of the interaction term in a model run in the high identity group with one run in the low identity group.

Similar levels of RD will have greater, positive effects on the likelihood of rebellion in the presence of higher levels of symbolic threats than in the presence of lower levels of symbolic threats (see figure #2). High levels of RD and high symbolic threats will lead to the highest probability of rebellion occurring or intensifying. Low symbolic threats should blunt the impact of every level of RD whereas high symbolic threats should amplify the impact of RD at every level.

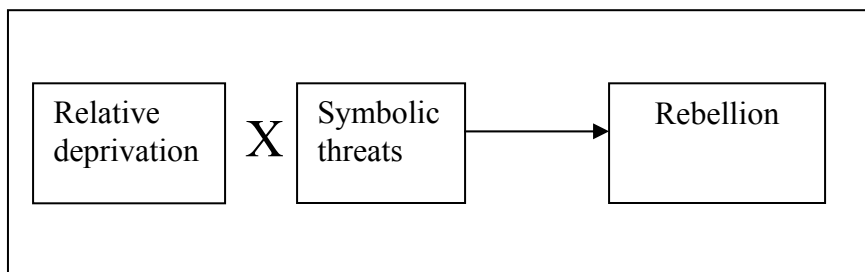


Figure 3: Relative deprivation and symbolic threats interaction

Hence,

H1: The impact of relative deprivation on the likelihood of rebellion occurring or intensifying is conditional on the presence and severity of symbolic threats.

Again based on figure two, we can say that the importance of RD is conditional on the level of symbolic threats *and* on whether the group members in question have stronger or weaker identities. Higher levels of group identity should lead to symbolic threats further amplifying the effect of RD on rebellion. At lower levels of group identity, symbolic threats will amplify the effect of RD less.<sup>16</sup>

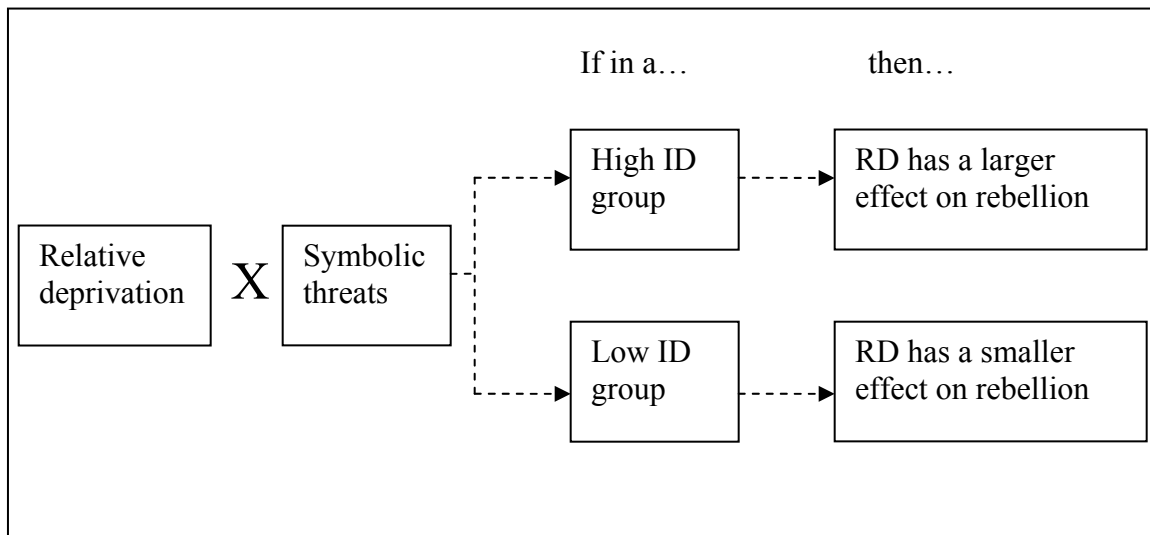


Figure 4: Relative deprivation, symbolic threats, and identity strength interaction\*

\* Dashed arrows are used so as not to imply that relative deprivation or symbolic threats cause group identity.

Thus,

H2: The interactive relationship between RD and symbolic threats will be stronger in high identity groups than in low identity groups.

<sup>16</sup> Of course, groups themselves do not have “high” or “low” levels of identification. Implicit in my operationalization is the assumption that group members in more distinct groups will, on average, have higher levels of identification with the in-group than those in less distinct groups. Some degree of anthropomorphizing is unavoidable given that our unit of analysis is the minority group and data about individuals are unavailable in MAR.

## CHAPTER 5

### DATA, VARIABLES, AND METHODOLOGY

#### Data

Data for this study come from the Minorities at Risk (MAR) project.<sup>17</sup> MAR is ideal for our purposes because its unit of analysis is the minority group-year as opposed to state-level datasets that seek to understand the occurrence of civil war. Given that states can have different policies of discrimination against different minority groups, it is imperative that we focus on the actions of particular groups. However, MAR has been criticized for its selection bias (Fearon & Laitin, 1999). The selection bias inherent in MAR is due largely to the fact that it only contains groups which are either active in terms of previous or current protest or rebellion or which are “at risk” due to state behavior against them.<sup>18</sup> Thus, MAR is probably unsuitable to use for making large scale generalizations about when groups will rebel as opposed to remain docile. Jenne, Saideman, and Lowe (2007) argue that it can be reliably used to determine when already active minority groups change the type or severity of their tactics. Hence, interpretation of our results will have to be made with these facts in mind. Though MAR is not perfect, it does provide the data we need to test hypotheses that must be considered at the minority-group level. In addition to MAR, I draw from Fearon and Laitin’s (2003) study of civil war for numerous other variables.<sup>19</sup> Finally, I take the number of military personnel in a given state from the

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<sup>17</sup> See <http://www.cidcm.umd.edu/mar/>

<sup>18</sup> Groups must have a size of over 100,000 (or 1% of the country’s total population) and exist in a state whose population exceeds 500,000. In addition, a group is only included if it “collectively suffers, or benefits from, systematic discriminatory treatment vis-à-vis other groups in a society; and/or collectively mobilizes in defense or promotion of its self-defined interests” (Minorities at Risk Phase IV Dataset Users Manual, p.5).

<sup>19</sup> These are: state population, GDP/capita, anocracy, instability, Oil, noncontiguous states, democracy, religious fractionalization, and ethnic fractionalization.

National Material Capabilities dataset, version 3.02 (Singer, Bremer, & Stuckey, 1972; Singer, 1987).

### Variables

In order to fully capture the model presented by ITT, a three-way interaction would be required. The interaction between in-group identification and symbolic threats and between RD and symbolic threats is clearly visible in figure two. However, implied in this interaction is also an interaction of in-group identification and a three-way interaction of all variables at once. Three-way interactions are very challenging to interpret in linear models and even harder to capture in non-linear models as will be used here. Hence, I present two identical models but in different subsets of the data. Each model will contain the interaction between RD and symbolic threats, but one will be run in the top half of the identity category and the other in the bottom half (see figure four). By comparing the two subset models we can account for the interaction of symbolic threats and RD across different levels of identity strength.

As for the variables of interest, I operationalize them as follows. For RD I use the economic differences, political differences, and political restrictions measures from MAR. Each of these sets of issues has measures of various types of economic or political discrimination that together have a Cronbach's alpha of .91. In order to capture the average level of status difference and RD present between the dominant and subordinate groups I take the mean of all the above variables.<sup>20</sup> As for symbolic threats, I use MAR's measure of cultural discrimination in the same way. I take the mean value of cultural discrimination based on MAR's eight

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<sup>20</sup> Though summing these variables would be another way to capture the concept, doing so leads to a large number of cases being dropped due to the fact that having one missing value in any of the 22 index variables leads to a missing summary variable. Meaning these variables avoids this pitfall. In addition, most of the cases that are retained by using this method had only a small number of missing data points out of the 22 index variables. I do not use MAR's summary variables for these concepts because indexing summary variables compounds measurement error and could lead to inaccurate conclusions.

variables ( $\alpha=.71$ ). There is no direct measure of identity strength in the MAR data.

However, there is a measure of the degree of minority-group distinctiveness which is based on a group's customs, beliefs, ethnicity, and language. The more distinct a group's members are on these dimensions compared to dominant-group members, the higher their score on this variable. I argue that this measure is a feasible proxy for identity strength and salience (see Kawakami & Dion, 1993, 1995). As noted in H1, the interaction effect of symbolic threats and RD is simply the product of the two variables described above.

However, these variables do not provide a complete picture of the conditions that facilitate or hinder collective action. To fairly test our hypotheses we must include relevant controls. In terms of state strength and political opportunities, relevant controls include measures<sup>21</sup> of population, GDP/capita, anocracy (Polity score between 5 and -5), instability (Polity score change of 3 or greater in past three years), number of military personnel in the state's army, whether the state is non-contiguous and whether or not it draws a significant portion of its income from fuel extraction (see Fearon & Laitin, 2003).

In terms resource mobilization capacity I include dummies for how particular groups are concentrated compared to the baseline category of being "widely dispersed". These dummies are concentrated in one region, majority in one region with others dispersed, and primarily urban or minority in one region. Further, I include Fearon and Laitin's (2003) measure of percent mountainous terrain in a given country and dummies for whether or not a group has kin groups in power in other countries or kin groups in countries that share borders with theirs (MAR).

For measures of a group's capability to enforce collective action I include dummies for whether or not a group was engaged in either intercommunal conflict with another group or intracommunal conflict within the group and a measure of whether or not the group was engaged

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<sup>21</sup> I use lagged variables in some cases to reduce concerns about endogeneity. These variables are marked in table 2.

in protest activity (MAR). In addition, I combine two measures of organizational capacity that are present in MAR but coded during different time periods. The first, coded from 1990-1995, is coded from 0-7 with “1” being a weak organization with little firm control over any one faction and “7” being a well-organized and hierarchical organization. The second variable is coded from 1996-2000 on a 1-5 scale. It is not directly comparable to the cohesion variable measured above but serves our purposes nonetheless. At “1”, groups are represented by umbrella organizations that advocate peaceful action and at “5”, groups are represented by strong organizations that advocate military action. I transform each of these variables by multiplying them by 7 or 5 respectively and then combine them into one variable that covers the entire 1990-2000 time period. This measure is far from perfect but is the only group-level variable that can come close to capturing the concept of an organization being capable of enforcing rules on its followers.

In terms of objective grievances I include a measure of democracy (MAR, dummy for Polity>6) and MAR’s lost autonomy variable that takes into account the recency and severity of past group setbacks in terms of independence and self-determination. I also include MAR’s composite variables for migratory and ecological stressors that a particular group is subject to. Finally, I include Fearon and Laitin’s (2003) measures of ethnic and religious fractionalization to test the hypotheses that diversity leads to conflict.<sup>22</sup>

Table 1: Descriptive statistics

Variable	Mean	SD	Min	Max
Symbolic threats	.26	.42	0	3
RD	.82	.59	0	2
Repression			0	1
Population (log)	8.97	1.56	5.49	14.03
GDP/cap (log)	7.57	1.86	4.54	9.93

<sup>22</sup> I exclude cases of advantaged minorities in order to focus only on minority groups that the state discriminates against.

Anocracy			0	1
Instability			0	1
Military pers. (log)	4.54	1.72	.69	8.32
Oil			0	1
Noncontiguous state			0	1
Regional concentration			0	1
Majority in one region, others dispersed			0	1
Urban or minority in one region			0	1
% Mountainous terrain (log)	2.55	1.20	0	4.56
Kindred in power	2.64	1.03	1	4
Kindred across border	2.99	1.51	1	5
Intercommunal conflict			0	1
Intracommunal conflict			0	1
Protest behavior	1.42	1.35	0	5
Organizational cohesion	16.52	10.06	0	35
Democracy			0	1
Lost autonomy	1.05	1.05	0	7
Migratory stressors	.727	1.17	0	6
Ecological stressors	1.12	1.73	0	9
Religious fractionalization	.41	.21	0	.78
Ethnic fractionalization	.53	.27	.004	.93
Group distinctiveness (Identity strength)	5.71	2.64	0	11

## Methodology

The model used is an ordered logistic regression. The unit of analysis is the minority group-year and the data were in panel form.<sup>23</sup> All models utilized clustered standard errors to account for error inflation within panels and year dummies were added to account for serial correlation. These year dummies are omitted from the presentation of results. In MAR,

<sup>23</sup> I provide justification for pooling in the discussion of the results.

rebellion is an eight category variable. However, after running the model with eight categories it became apparent that the confidence intervals around the cutpoints overlapped a great deal. Hence, I break rebellion down into three categories: none (apx 75% of all cases), medium (apx. 12%) and high (apx. 12%).

Model one does not include any interaction effect. Model two shows the interaction between organizational cohesion and RD and model three shows the interaction between identity strength and RD. Model four shows the interaction of symbolic threats and RD and is a test of H1. Model five shows the same interaction in a subset of high identity cases and model six shows the interaction in a subset of low identity cases and is a test of H2. “High” identity is defined by being above the median score on the group distinctiveness variable and “low” identity is defined by being below the median.

CHAPTER 6

RESULTS

Table 2: Ordered logistic regression results with year dummies and clustered standard errors

	Model 1	Model 2	Model 3	Model 4	Model 5 high ID	Model 6 low ID
DistinctXRD	--	--	.006 (.21)	--	--	--
OrgcohesionXRD	--	.03 (.03)	--	--	--	--
SymbolicXRD	--	--	--	2.47* (1.44)	7.47** (1.91)	-6.77 (4.54)
Symbolic threats <sup>a</sup>	.49 (.47)	.51 (.48)	.49 (.48)	-2.00 (1.61)	-5.92** (2.03)	5.33 (4.44)
RD <sup>a</sup>	.19 (.49)	-.39 (.84)	.16 (1.27)	-.32 (.61)	-2.17* (1.20)	.78 (.99)
Repression <sup>a, b</sup>	1.91** (.72)	1.89** (.71)	1.91** (.72)	1.90** (.68)	2.02** (.79)	2.97** (1.05)
Population <sup>a, c</sup>	-.23 (.24)	-.24 (.24)	-.23 (.24)	-.24 (.24)	.15 (.34)	-1.93** (.76)
GDP/cap <sup>a, c</sup>	-.82** (.30)	-.84** (.30)	-.82** (.32)	-.92** (.32)	-.66 (.53)	-1.45** (.54)
Anocracy <sup>a, b</sup>	-.47 (.47)	-.41 (.47)	-.46 (.48)	-.50 (.47)	-.40 (.76)	-2.34** (.95)
Instability <sup>a, b</sup>	-.32 (.42)	-.33 (.43)	-.32 (.42)	-.31 (.41)	-.40 (.54)	-.17 (.83)
Military pers. <sup>a, c</sup>	.22 (.26)	.23 (.25)	.22 (.26)	.26 (.26)	-.009 (.35)	1.27** (.59)
Oil <sup>b</sup>	-.89 (.61)	-.89 (.61)	-.88 (.64)	-.86 (.61)	-1.77** (.77)	-2.31* (1.39)
Noncontiguous state <sup>a, b</sup>	1.90** (.60)	1.90** (.61)	1.90** (.59)	1.92** (.60)	1.26 (.87)	5.32** (1.42)
Regional concentration <sup>a, b, d</sup>	1.27 (.96)	1.29 (.97)	1.27 (.97)	1.18 (.98)	2.06 (1.91)	3.00 (1.98)
Majority in one region, others dispersed <sup>a, b, d</sup>	1.60 (1.06)	1.62 (1.07)	1.60 (1.09)	1.58 (1.06)	1.80 (1.94)	6.80** (3.16)
Urban or minority in one region <sup>a, b, d</sup>	.74 (1.09)	.72 (1.10)	.74 (1.15)	.87 (1.10)	.68 (1.90)	2.52 (1.78)
% Mountainous terrain <sup>c</sup>	.03 (.16)	.02 (.16)	.03 (.16)	.02 (.16)	.05 (.20)	.34 (.31)

Kindred in power <sup>a</sup>	-.38**	-.39**	-.38**	-.37**	-.56**	.19
	(.18)	(.18)	(.18)	(.18)	(.24)	(.38)
Kindred across border <sup>a</sup>	-.11	-.12	-.11	-.13	-.39*	-.45*
	(.14)	(.14)	(.14)	(.14)	(.22)	(.27)
Intercommunal conflict <sup>a, b</sup>	-.20	-.19	-.20	-.15	.23	-.02
	(.35)	(.35)	(.35)	(.36)	(.54)	(.60)
Intracommunal conflict <sup>a, b</sup>	1.16**	1.16**	1.16**	1.18**	.94	2.62*
	(.38)	(.38)	(.39)	(.38)	(.67)	(1.07)
Protest behavior <sup>a</sup>	.18*	.17	.18*	.18*	-.08	.74**
	(.11)	(.10)	(.11)	(.11)	(.17)	(.19)
Organizational cohesion <sup>a</sup>	.03*	.01	.03*	.03	.02	.04
	(.02)	(.03)	(.02)	(.02)	(.03)	(.04)
Democracy <sup>a, b</sup>	-.53	-.46	-.53	-.65	-1.15*	-2.89**
	(.42)	(.42)	(.43)	(.42)	(.63)	(1.32)
Lost autonomy	.48**	.47**	.48**	.51**	1.27**	-.72
	(.21)	(.21)	(.21)	(.21)	(.26)	(.66)
Migratory stressors <sup>a</sup>	.39**	.39**	.39**	.36**	.21	.48
	(.13)	(.14)	(.14)	(.14)	(.17)	(.46)
Ecological stressors <sup>a</sup>	.13*	.13*	.13*	.14*	.08	-.17
	(.07)	(.07)	(.07)	(.07)	(.13)	(.21)
Religious fractionalization	-.26	-.20	-.26	-.82	-4.07**	1.16
	(1.15)	(1.17)	(1.16)	(1.24)	(1.85)	(1.68)
Ethnic fractionalization	-.56	-.60	-.57	-.67	.31	.70
	(1.08)	(1.10)	(1.14)	(1.08)	(1.68)	(1.90)
Group distinctiveness (Identity strength)	-.07	-.07	-.07	-.06	-.25	-.34
	(.08)	(.08)	(.16)	(.09)	(.20)	(.36)
Cut 1	-3.36	-3.92	-5.28	-4.90	-6.4	-16.66
Cut 2	-2.12	-2.67	-4.03	-3.65	-4.63	-15.44
# Observations	649	649	649	649	380	269
Wald $\chi^2$	149.98	157.26	156.50	175.14	130.41	211.95
	(30)	(31)	(31)	(31)	(31)	(31)
Prob> $\chi^2$	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Log pseudolikelihood	-352.60	-351.95	-352.60	-349.44	-179.90	-106.48
Pseudo $r^2$	.30	.31	.30	.31	.42	.45
# clusters for adjusted standard errors	201	201	201	201	113	88

\*= p<.1; \*\*=p<.05

<sup>a</sup>= lagged; <sup>b</sup>= dummy; <sup>c</sup>= logged; <sup>d</sup>= compared to baseline category of dispersed

## Discussion

As for traditional variables used to predict rebellion, there are some interesting changes that occur in models five and six. In the high identity group we find that the logged measure of GDP/capita does not significantly decrease the likelihood of rebellion, as it does in every other model. Fearon and Laitin (2003) use this variable as a proxy measure for state strength and find it, as with the other models above, to significantly decrease the likelihood of conflict. In addition, no measure of state capacity seems to positively or negatively impact rebellion in this model. Further, having kin groups in power or in neighboring countries actually decreases the chances of rebellion. Also of interest is the finding that organizational strength has no discernible effect in any of the models that contain the interaction of symbolic threats and RD. Democracy only takes on a significant negative coefficient in models five and six and religious fractionalization decreases the likelihood of rebellion in the high identity model. In the low identity model, anocracy decreases the likelihood of rebellion and the number of military personnel under state control and a history of intragroup conflict increases it.

Robustness checks largely supported the findings regarding the interaction effect in models five and six.<sup>24</sup> Running the model with a dichotomized dependent variable yielded substantively similar results on our variables of interest. A Hausman test for the applicability of fixed versus random effects in a time-series cross-sectional logistic regression model failed to reject the null that variance between the two models was not systematic.<sup>25</sup> Given the lack of variance across time and within panel, the lack of difference between estimates obtained with

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<sup>24</sup> For further details, see Appendix.

<sup>25</sup> A fixed effects logistic regression estimation could not be obtained with the lower identity group model. This may be due to small sample size and the fact that over our time period there was little variation in the dichotomous dependent variable. In addition, there appears to be little time variance for many of our independent variables, which makes modeling fixed-effect dynamics more difficult, particularly in the presence of so few time points and so little variation in the dichotomous dependent variable over time.

fixed and random effects, and the large number of covariates in the model, pooling on the minority group level is an acceptable manner of analyzing the data. Clustering standard errors alleviates the assumption made in pooling that all panels have homogeneous standard errors as well. Removing the time dummies and including a lagged dependent variable did not alter the substantive interpretation of our variables of interest.<sup>26</sup>

Aside from the methodological considerations, we do find that the impact of RD on rebellion is conditional on symbolic threats and that this relationship is stronger in high identity groups than in low identity groups. However, even though the coefficient on this interaction is insignificant in the low-identity group, it is quite large and negative. In addition to this odd sign change, the coefficients on the RD and symbolic threats variables by themselves have counterintuitive signs. In the high identity model, both symbolic threats and RD, by themselves, have suppressive effects on the probability of rebellion. In the low identity group these coefficients are insignificant, but positive. Hence, we have evidence that when either RD or symbolic threats are present in high identity groups *and* the other is absent, the likelihood of rebellion decreases.<sup>27</sup> However, in groups where symbolic threats and RD are both present, they interact to increase the probability of rebellion. Even though the effects of these variables and the interaction effect in low identity groups are insignificant, it is still noteworthy that their signs invert compared to those in the high identity group. ITT would predict that in low identity

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<sup>26</sup> When run with fixed effects in OLS on the eight category dependent variable, the coefficient on the interaction term was insignificant and a Hausman test indicated the need for fixed effects in the high- and low- identity models. Even though this variable is not continuous, and may be unsuitable for OLS, these results may still be of interest. This nonsignificance is probably attributable to the fact that standard errors typically inflate in fixed effects models as compared to those in pooled or random effects models. Also, with so few time points (approximately 3 per group) and little variance within-panel across time, estimating dynamics within-panel is quite difficult. The fixed effects coefficient decreased in size compared to that obtained by the pooled and random effects models, but still approached significance at  $p < .15$  without a lagged dependent variable and  $p < .20$  with a lagged dependent variable in the high identity model. Further data gathering efforts may allow us to more effectively examine this relationship within and across time and panels and to account for differences in dichotomous versus continuous estimation techniques.

<sup>27</sup> For RD, this finding is significant at  $p < .1$

groups these issues should have less of an effect, not an opposite effect. Hence, in the case of the high-identity group we have reason to return to social psychology with partially supported findings, but also with more questions. In the case of low identity groups, we cannot speak with a high degree of certainty about our interaction effect, except to say that it is not statistically significant.

While this table of results is informative, it does not clearly show the impact of RD on the probability of various levels of rebellion occurring. In order to better see this relationship I present graphs of predicted probabilities for models five and six below. The difference between “high” and “low” symbolic threats in these graphs is that the mean value of cultural discrimination is either set at its maximum (2) or its minimum (0), respectively. The difference between “high” and “low” identity groups derives from running the model in groups either above or below the median value of the group distinctiveness measure, respectively. All other variables are held at their medians to simplify the presentation of results.

## Graphs

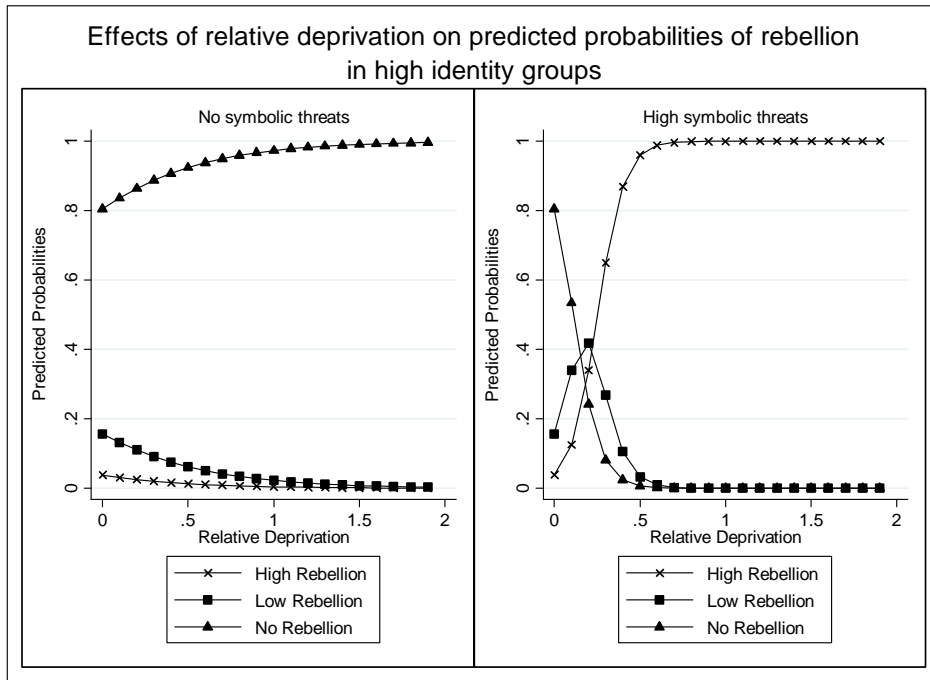


Figure 5: Graph of model five

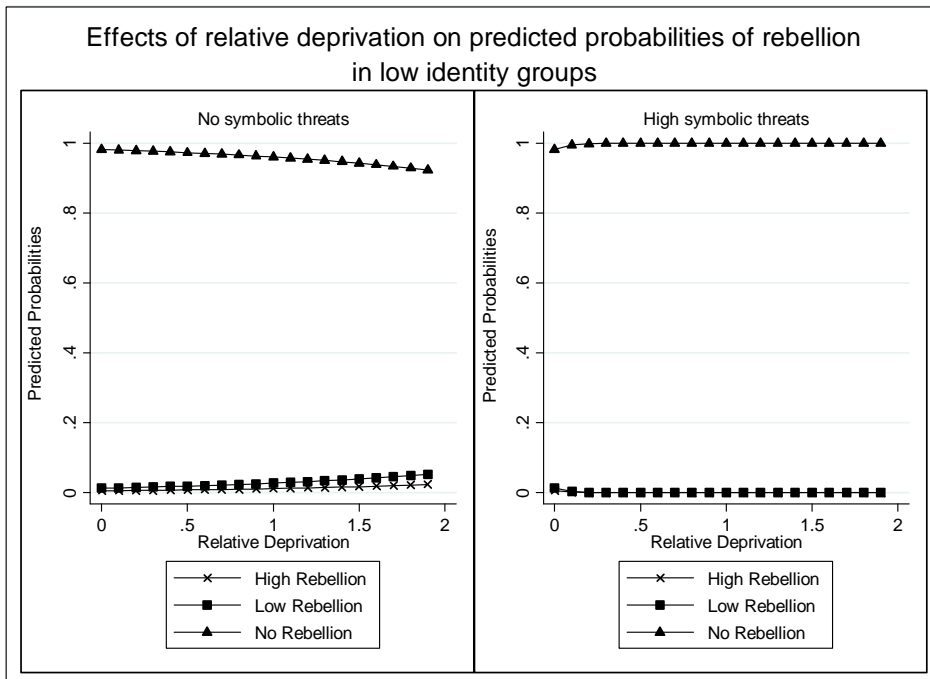


Figure 6: Graph of model six

These graphs illustrate the conditional nature of the effects of RD on rebellion. As seen in figure five, high identity groups that are subject to high levels of cultural discrimination tend to engage in higher levels of rebellion in the presence of relatively low levels of RD. In the absence of symbolic threats, RD has a slightly suppressive effect on rebellion. Figure six is notable for the absence of any significant effect due to RD. In this sense, we find support for H2 given that the interactive nature of RD and symbolic threats has a stronger impact on rebellion under conditions of high in-group identity than it does under conditions of low in-group identity. However, ITT does not predict the absence of any significant effect under conditions on low in-group identity.

## CHAPTER 7

### CONCLUSION

In sum, we find support for using ITT to better understand the role that RD plays in minority group rebellion. The difference between the effects of RD in figures five and six is clear, and the role of symbolic threats can be seen in the difference between the graphs in figure five. When group members have strong in-group identities and are symbolically discriminated against, RD dramatically increases the likelihood of both mid-level and high-level rebellion occurring. In other contexts where individuals lack identity strength or are not symbolically threatened, there is no such relationship. However, these results must be interpreted with caution given the nature of the dataset.<sup>28</sup> It is important to realize that we may not be able to generalize these results to the universe of cases given MAR's selection bias. Hence, these results must be interpreted as being supportive of some aspects of ITT's implications, but tentatively so for generalization beyond our sample. Further data collection and more refined measures will allow us to test this model in a more satisfactory and generalizable manner.

However, we still have evidence that theories about the mobilization of RD should take state-level behavior into account in addition to considering the framing conducted by minority-group elites. This micro-mobilization would seem to be contingent on the level of group identity/distinctiveness, RD, and symbolic threats present. For example, in a high identity, high symbolic threat environment, micro-mobilization around RD should be far easier for group elites than in other situations where one of these key ingredients is absent.

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<sup>28</sup> Both Gurr (2000) and Jenne, Saideman, and Lowe (2007) use MAR in their analyses.

Of course, it may also be the case that successful minority-group elites attempt to increase the salience of group identities or manufacture the perception that their group is being culturally repressed in order to generate collective action from RD. Unsuccessful group elites might neglect one of these critical components for the mobilization of RD and be unable to generate optimal mobilization.<sup>29</sup> In this sense, ITT can be used at both the micro- and the macro- levels of analysis without contradiction. By considering the degree to which identity, RD, and symbolic threats are salient at the state and group level, we can likely arrive at a better understanding of when RD leads to rebellion. Given the highly contextually dependent nature of RD's influence, this conclusion can perhaps shed light on the sometimes contradictory findings encountered by RD researchers.

Using ITT, and social psychology in general, appears to be a fruitful approach to use in enhancing our understanding of micro-mobilization and its interaction with broader structural forces. Specifically, I argue that psychological approaches to understanding framing and constructivism can be clustered around three areas: 1) affect and “hot cognitive” findings could likely be integrated with other emotions-oriented research in political science. Petersen (2002) studies the role of affect in rebellion and repression directly and Crawford (2000) and Bueno de Mesquita and McDermott (2004) advocate attempting to bridge the rational choice and non-rational choice divide in political science by focusing on the role of emotions in decision making. As seen in the above review of research on RD, the emotional component of RD is a key factor in determining group and individual level responses (see de la Rey & Raju, 1996; Grant & Brown, 1995). Second, traditional “cold cognitive” research on intergroup relations (Tajfel &

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<sup>29</sup> They could even suppress mobilization as seen in figure five.

Turner, 1979) could still be further integrated with theories of framing and constructivism.<sup>30</sup>

Finally, research from cognitive psychology (e.g., prospect theory) has yet to be fully integrated into studies of constructivism, framing, and rebellion (see Berejikian, 1992). Each of these areas could likely be investigated at multiple levels of analysis in order to better understand how these levels interact (see Fearon & Laitin, 2000).

To conclude, we have found tentative support for our hypotheses on the role of RD in rebellious collective action. And, the future of integrating social psychological research with constructivism and framing appears promising. This study has also shown, however, that such studies must take into account the multiple levels at which constructivism can take place. Discursive, individual, and elite methods of constructivism and framing have yet to be fully integrated with each other, not to mention with nuanced social psychological theories. However, pursuing such a research agenda would accomplish multiple goals. Namely, it would give scholars a holistic framework, rooted in behaviorally sound theories, in which to conduct future research on collective action. The synthetic nature of this approach could also lead to much cross-pollination between social science disciplines that study the same phenomena but, for various reasons, fail to engage in constructive dialog.

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<sup>30</sup> The articulation of “injustice frames” may be relevant for both hot cognitive and intergroup relations approaches, though could still benefit from being couched in varying levels of constructivism (see Gamson, 1992a; Gamson, 1992b; Gamson, Fireman & Rytina, 1982). For instance, certain state actions may lead to more easily articulated injustice frames at the minority group level.

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APPENDIX

Table 3: Time-series, cross-sectional logistic regression in low and high identity groups with fixed, random, and population-averaged effects

	high ID fixed	high ID random	high ID pa	low ID fixed	low ID random	low ID pa
SymbolicXRD	10.28 (36.01)	13.88** (5.23)	6.78** (2.02)	--	--	-4.83 (3.15)
Symbolic threats <sup>a</sup>	2.30 (42.63)	-9.14* (5.03)	-4.88** (2.07)	--	--	3.84 (3.17)
RD <sup>a</sup>	-2.69 (20.51)	-3.29 (2.03)	-1.18 (.87)	--	--	.57 (.87)
Repression <sup>a, b</sup>	-3.53 (2.87)	-2.18** (.93)	-.97** (.37)	--	--	1.66** (.75)
Population <sup>a, c</sup>	14.38 (17.50)	-.40 (.77)	-.21 (.33)	--	--	-1.42** (.62)
GDP/cap <sup>a, c</sup>	-16.66* (9.86)	-2.61** (1.20)	-1.31** (.43)	--	--	-1.17** (.46)
Anocracy <sup>a, b</sup>	1.62 (8.29)	-.24 (1.36)	.06 (.61)	--	--	-2.02** (.81)
Instability <sup>a, b</sup>	-1.08 (1.42)	-1.05 (.93)	-.40 (.40)	--	--	.16 (.85)
Military personnel <sup>a, c</sup>	7.86* (4.06)	.98 (.87)	.44 (.35)	--	--	.90* (.46)
Oil <sup>b</sup>	12.25 (2912)	-2.88* (1.62)	-1.20 (.79)	--	--	-2.37* (1.30)
Noncontiguous state <sup>a, b</sup>	--	2.04 (1.72)	.55 (.76)	--	--	4.83** (1.07)
Regional concentration <sup>a, b, d</sup>	--	3.32 (2.42)	1.48 (1.09)	--	--	3.34** (1.62)
Majority in one region, others dispersed <sup>a, b, d</sup>	--	3.23 (2.54)	1.32 (1.13)	--	--	6.80** (1.97)
Urban or minority in one region <sup>a, b, d</sup>	--	-.22 (3.01)	.19 (1.39)	--	--	3.72* (1.93)
% Mountainous terrain <sup>c</sup>	--	.14 (.52)	.08 (.22)	--	--	.21 (.26)
Kindred in power <sup>a</sup>	--	-1.21* (.63)	-.64** (.26)	--	--	.01 (.32)
Kindred across border <sup>a</sup>	--	-.57 (.55)	-.36 (.25)	--	--	-.35 (.32)

Intercommunal conflict <sup>a, b</sup>	-3.27 (2.54)	.22 (.97)	.11 (.40)	--	--	-.23 (.63)
Intracommunal conflict <sup>a, b</sup>	--	.32 (1.26)	.31 (.57)	--	--	2.83** (.76)
Protest behavior <sup>a</sup>	.84 (.78)	.39 (.31)	.17 (.13)	--	--	.71** (.22)
Organizational cohesion <sup>a</sup>	.12 (.27)	.08 (.05)	.03 (.02)	--	--	.05* (.03)
Democracy <sup>a, b</sup>	7.69 (13.85)	.65 (1.57)	.27 (.62)	--	--	-2.18** (1.00)
Lost autonomy	--	1.93** (.78)	.93** (.30)	--	--	-.47 (.41)
Migratory stressors <sup>a</sup>	-.06 (.69)	.16 (.34)	.04 (.15)	--	--	.62** (.27)
Ecological stressors <sup>a</sup>	-.42 (.88)	.04 (.25)	-.03 (.11)	--	--	-.21 (.22)
Religious fractionalization	--	-4.86 (3.62)	-1.89 (1.59)	--	--	-.02 (1.64)
Ethnic fractionalization	--	-.08 (2.70)	-.37 (1.20)	--	--	.85 (1.87)
Group distinctiveness (Identity strength)	--	-.47 (.52)	-.20 (.23)	--	--	-.66** (.29)
Constant	--	20.70* (12.49)	11.17** (5.05)	--	--	13.15 (6.29)
# Observations	87	380	380	--	--	269
# groups	23	113	113	--	--	88
Avg. obs/group	3.8	3.4	3.4	--	--	3.1
Wald $\chi^2$	--	21.23	51.71	--	---	49.43
LR $\chi^2$	41.24	--	--	--	--	--
Prob> $\chi^2$	0.0005	.8154	0.0041	--	--	0.0075
Log likelihood	-12.03	-106.28	--	--	--	--
lnsig2u	--	2.63 (.61)	--	--	--	--
sigma_u	--	3.73 (1.14)	--	--	--	--
rho	--	.81 (.09)	--	--	--	--
LR test rho=0	--	45.20	--	--	--	--
Prob>=chibar2	--	0.000	--	--	--	--

\*= p<.1; \*\*=p<.05

<sup>a</sup>= lagged; <sup>b</sup>= dummy; <sup>c</sup>= logged; <sup>d</sup>= compared to baseline category of dispersed  
Fixed and random effects models inestimable in low identity group.

Table 4: Hausman test for fixed versus random effects results based on the “high ID” category in table 3

	fixed effects	random effects	Difference (f-r)
SymbolicXRD	10.28	13.88	-3.60
Symbolic threats	2.30	-9.15	11.44
RD	-2.69	-3.29	.59
Repression	-3.53	-2.18	-1.36
Population	14.38	-.40	14.78
GDP/cap	-16.66	-2.61	-14.04
Anocracy	1.62	-.24	1.86
Instability	-1.08	-1.05	-.04
Military personnel	7.86	.98	6.88
Oil	12.25	-2.88	15.14
Intercommunal conflict	-3.27	.22	-3.48
Protest behavior	.84	.39	.45
Organizational cohesion	.12	.08	.04
Democracy	7.69	.65	7.04
Migratory stressors	-.06	.16	-.22
Ecological stressors	-.42	.04	-.46
$\chi^2$	6.48		
Prob> $\chi^2$	0.9529		

Table 5: Table two run with OLS regression

	Model 1	Model 2	Model 3	Model 4	Model 5 high ID	Model 6 low ID
DistinctXRD	--	--	-.10 (.11)	--	--	--
OrgcohesionXRD	--	.03* (.02)	--	--	--	--
SymbolicXRD	--	--	--	2.10** (.89)	2.92** (1.11)	.13 (1.1)
Symbolic threats <sup>a</sup>	.25 (.45)	.24 (.43)	.30 (.44)	-1.91* (.91)	-1.99 (1.33)	-1.68 (1.16)
RD <sup>a</sup>	.31 (.27)	-.30 (.45)	.85 (.67)	-.07 (.34)	-.75* (.44)	.64 (.41)
Repression <sup>a, b</sup>	.59** (.26)	.58** (.26)	.60** (.26)	.58** (.25)	.28 (.30)	.93** (.39)
Population <sup>a, c</sup>	-.21 (.14)	-.22 (.14)	-.23 (.14)	-.21 (.14)	-.06 (.15)	-.51** (.22)
GDP/cap <sup>a, c</sup>	-.42** (.15)	-.41** (.15)	-.40** (.15)	-.48** (.15)	-.32 (.19)	-.54** (.21)
Anocracy <sup>a, b</sup>	-.53 (.34)	-.48 (.33)	-.53 (.34)	-.54 (.33)	-.10 (.44)	-1.22** (.43)
Instability <sup>a, b</sup>	-.22 (.20)	-.22 (.20)	-.22 (.20)	-.26 (.20)	-.33 (.24)	.04 (.26)
Military pers. <sup>a, c</sup>	.21 (.14)	.24* (.14)	.23 (.14)	.22 (.14)	.14 (.15)	.42* (.22)
Oil <sup>b</sup>	-.21 (.26)	-.19 (.26)	-.27 (.27)	-.18 (.26)	-.70* (.42)	.09 (.29)
Noncontiguous state <sup>a, b</sup>	.83** (.30)	.83** (.31)	.84** (.30)	.86** (.31)	.48 (.41)	1.43** (.40)
Regional concentration <sup>a, b, d</sup>	.27 (.32)	.27 (.32)	.27 (.32)	.17 (.32)	.52 (.40)	.18 (.40)
Majority in one region, others dispersed <sup>a, b, d</sup>	.50 (.36)	.50 (.36)	.48 (.36)	.46 (.36)	.16 (.42)	1.67** (.55)
Urban or minority in one region <sup>a, b, d</sup>	-.001 (.31)	-.02 (.31)	-.04 (.30)	-.06 (.30)	-.02 (.34)	.19 (.36)
% Mountainous terrain <sup>c</sup>	.004 (.08)	.01 (.08)	-.002 (.08)	.02 (.08)	-.03 (.09)	.19 (.12)
Kindred in power <sup>a</sup>	-.18 (.11)	-.19* (.11)	-.19* (.11)	-.16 (.11)	-.35** (.13)	.08 (.14)
Kindred across border <sup>a</sup>	-.07 (.08)	-.07 (.08)	-.07 (.08)	-.09 (.08)	-.13 (.11)	-.12 (.10)
Intercommunal conflict <sup>a, b</sup>	-.07 (.23)	-.05 (.23)	-.08 (.23)	-.02 (.23)	.08 (.28)	-.11 (.29)
Intracommunal conflict <sup>a, b</sup>	.94** (.27)	.92** (.27)	.93** (.27)	.94** (.27)	.80** (.34)	.59** (.29)

Protest behavior <sup>a</sup>	.02 (.07)	.002 (.07)	.01 (.07)	.04 (.07)	-.07 (.08)	.19** (.09)
Organizational cohesion <sup>a</sup>	.02* (.01)	-.004 (.02)	.02** (.01)	.01 (.01)	.01 (.01)	.01 (.01)
Democracy <sup>a, b</sup>	-.57* (.33)	-.51 (.32)	-.55 (.34)	-.65** (.32)	-.69 (.42)	-1.13** (.48)
Lost autonomy	.30** (.11)	.29** (.12)	.31** (.12)	.33** (.11)	.53** (.14)	.10 (.14)
Migratory stressors <sup>a</sup>	.27** (.09)	.27** (.09)	.27** (.09)	.24** (.08)	.18** (.08)	.27 (.18)
Ecological stressors <sup>a</sup>	.09 (.06)	.08 (.06)	.09* (.06)	.08 (.05)	.003 (.06)	.10 (.10)
Religious fractionalization	-.30 (.59)	-.29 (.58)	-.33 (.59)	-.57 (.56)	-.98 (.76)	-.53 (.76)
Ethnic fractionalization	.20 (.47)	.21 (.48)	.28 (.45)	.08 (.47)	.05 (.50)	.47 (.56)
Group distinctiveness (Identity strength)	-.05 (.04)	-.05 (.04)	.009 (.07)	-.04 (.04)	-.07 (.08)	-.01 (.14)
Constant	5.02** (1.66)	5.45** (1.68)	4.78** (1.62)	5.97** (1.68)	4.70** (2.10)	6.91** (2.91)
# Observations	649	649	649	649	380	269
F-test	5.74	5.82	5.69	5.79	6.94	11.59
Prob> $\chi^2$	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
r <sup>2</sup>	.3826	.3890	.3849	.3970	.5183	.4703
# clusters for adjusted standard errors	201	201	201	201	113	88

\*= p<.1; \*\*=p<.05

<sup>a</sup>= lagged; <sup>b</sup>= dummy; <sup>c</sup>= logged; <sup>d</sup>= compared to baseline category of dispersed  
Year dummies not reported

Table 6: Time-series, cross-sectional OLS regression in low and high identity groups with fixed, random, and between effects

	high ID fixed	high ID random	high ID be	low ID fixed	low ID random	low ID be
SymbolicXRD	2.00 (1.36)	2.66** (.85)	2.66* (1.12)	-1.41 (1.88)	-1.00 (1.41)	2.34 (1.89)
Symbolic threats <sup>a</sup>	-.81 (1.46)	-1.60* (.94)	-1.26 (1.28)	-1.41 (1.68)	-1.24 (1.34)	-3.82* (2.00)
RD <sup>a</sup>	1.15 (.89)	-.35 (.39)	-.85* (.44)	7.39** (.97)	2.11** (.50)	.62 (.57)
Repression <sup>a, b</sup>	-.27 (.19)	-.27 (.17)	-1.64* (.88)	.38* (.22)	.73** (.21)	-.55 (1.28)
Population <sup>a, c</sup>	-.04 (.86)	-.16 (.16)	-.03 (.20)	1.57 (1.28)	-.11 (.26)	-.68** (.31)
GDP/cap <sup>a, c</sup>	-1.13** (.57)	-.57** (.19)	-.12** (.25)	-1.25** (.50)	-.52** (.25)	-.65* (.34)
Anocracy <sup>a, b</sup>	-.77** (.38)	-.43 (.30)	.25 (.51)	-.07 (.29)	-.26 (.25)	-3.35** (.81)
Instability <sup>a, b</sup>	-.11 (.18)	-.18 (.17)	-.52 (.50)	-.06 (.20)	-.10 (.21)	.83 (.98)
Military pers. <sup>a, c</sup>	.27 (.28)	.19 (.16)	.09 (.21)	-.38 (.27)	.23 (.20)	.47* (.26)
Oil <sup>b</sup>	.71 (.79)	-.29 (.38)	-.54 (.46)	.50 (.76)	.68 (.51)	-.42 (.64)
Noncontiguous state <sup>a, b</sup>	--	.56 (.36)	.54 (.37)	--	.70 (.64)	1.72** (.64)
Regional concentration <sup>a, b, d</sup>	--	.47 (.45)	.47 (.46)	--	.02 (.66)	-.12** (.64)
Majority in one region, others dispersed <sup>a, b, d</sup>	--	.21 (.49)	.25 (.50)	--	1.52** (.74)	1.59** (.74)
Urban or minority in one region <sup>a, b, d</sup>	--	-.12 (.48)	-.15 (.50)	--	-.31 (.80)	-.47 (.76)
% Mountainous terrain <sup>c</sup>	--	-.03 (.11)	-.04 (.11)	--	.25 (.16)	.32** (.15)
Kindred in power <sup>a</sup>	--	-.36** (.13)	-.25* (.14)	--	.17 (.23)	.35 (.21)
Kindred across border <sup>a</sup>	--	-.17 (.13)	-.14 (.13)	--	.10 (.18)	-.09 (.18)
Intercommunal conflict <sup>a, b</sup>	.24 (.21)	.12 (.18)	.19 (.32)	-.22 (.24)	-.17 (.23)	.01 (.52)
Intracommunal conflict <sup>a, b</sup>	--	.77* (.31)	.91** (.33)	--	.37 (.47)	1.07** (.47)
Protest behavior <sup>a</sup>	.14** (.06)	.08 (.06)	-.36** (.14)	.06 (.07)	.08 (.07)	.41** (.18)

Organizational cohesion <sup>a</sup>	-.03** (.01)	-.008 (.01)	.04** (.02)	.03** (.01)	.03** (.01)	-.01 (.02)
Democracy <sup>a, b</sup>	-.55 (.44)	-.55* (.32)	-.65 (.46)	.13 (.38)	-.24 (.35)	-2.54** (.73)
Lost autonomy	--	.48** (.16)	.52** (.16)	--	.20 (.23)	.13 (.23)
Migratory stressors <sup>a</sup>	.17* (.09)	.14** (.07)	.12 (.12)	.49** (.11)	.44* (.11)	-.37 (.22)
Ecological stressors <sup>a</sup>	-.11 (.07)	-.02 (.05)	-.01 (.08)	-.11 (.11)	-.07 (.10)	.14 (.16)
Religious fractionalization	--	-.53 (.74)	-1.64** (.82)	--	-1.21 (1.04)	-.78 (.95)
Ethnic fractionalization	--	.33 (.61)	.34 (.65)	--	1.20 (1.00)	.40 (.99)
Group distinctiveness (Identity strength)	--	-.04 (.10)	-.09 (.10)	--	-.11 (.17)	-.02 (.17)
Constant	8.48 (9.04)	7.39** (2.24)	3.14 (2.80)	-7.83 (13.18)	1.59 (3.10)	9.99** (4.04)
# Observations	380	380	380	269	269	269
# groups	113	113	113	88	88	88
Avg. obs/group	3.4	3.4	3.4	3.1	3.1	3.1
F test	3.20	--	5.41	8.35	--	3.26
Wald $\chi^2$	--	159.50	--	--	107.25	--
Prob> $\chi^2$ , F	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001
within $r^2$	.1693	.1307	.0164	.4473	.3166	.0108
between $r^2$	.2248	.5383	.6431	.0383	.3459	.6077
overall $r^2$	.2128	.4813	.4115	.0614	.3544	.3064
corr (u <sub>i</sub> , xb)	-0.3075	-- (0)	--	-.8910	-- (0)	--
sd(u <sub>i</sub> + avg(e <sub>i</sub> ))	--	--	1.22	--	--	1.54
sigma_u	1.64	1.08	--	3.94	1.45	--
sigma_e	.93	.93	--	.80	.80	--
rho	.76	.57	--	.96	.77	--
F test that all u <sub>i</sub> =0	5.19	--	--	7.53	--	--
Prob>F	0.0000	--	--	0.0000	--	--

\*= p<.1; \*\*=p<.05

<sup>a</sup>= lagged; <sup>b</sup>= dummy; <sup>c</sup>= logged; <sup>d</sup>= compared to baseline category of dispersed

Table 7: Hausman test for fixed versus random effects results based on the “high ID” category in table 6

	fixed effects	random effects	Difference (f-r)
SymbolicXRD	2.00	2.66	-.66
Symbolic threats	-.81	-1.60	.80
RD	1.15	-.35	1.50
Repression	-.27	-.27	.00
Population	-1.13	-.57	-.56
GDP/cap	-.77	-.43	-.34
Anocracy	-.11	-.18	.07
Instability	.27	.19	.09
Military personnel	.71	-.29	1.00
Oil	.24	.12	.12
Intercommunal conflict	.14	.09	.06
Protest behavior	-.03	-.01	-.02
Organizational cohesion	-.55	-.55	.00
Democracy	.17	.14	.03
Migratory stressors	-.11	-.02	-.08
$\chi^2$	41.52		
Prob> $\chi^2$	0.0005		

Table 8: Table two run with OLS regression and a lagged dependent variable

	Model 1	Model 2	Model 3	Model 4	Model 5 high ID	Model 6 low ID
DistinctXRD	--	--	-.08 (.06)	--	--	--
OrgcohesionXRD	--	.02* (.01)	--	--	--	--
SymbolicXRD	--	--	--	.61* (.26)	1.02* (.52)	.07 (.67)
Rebellion <sup>a</sup>	.82** (.04)	.81** (.04)	.82** (.04)	.81** (.04)	.77** (.06)	.80** (.07)
Symbolic threats <sup>a</sup>	-.07 (.16)	-.07 (.15)	-.02 (.16)	-.69* (.36)	-.85 (.53)	-.63 (.62)
RD <sup>a</sup>	.18 (.12)	-.08 (.17)	.64* (.39)	.07 (.15)	-.20 (.17)	.35 (.27)
Repression <sup>a, b</sup>	.12 (.15)	.11 (.15)	.12 (.15)	.12 (.15)	.06 (.24)	.21 (.15)
Population <sup>a, c</sup>	-.05 (.06)	-.06 (.06)	-.07 (.06)	-.05 (.06)	.06 (.08)	-.28 (.17)
GDP/cap <sup>a, c</sup>	-.10* (.06)	-.10* (.06)	-.09 (.06)	-.12* (.06)	-.07 (.09)	-.04 (.09)
Anocracy <sup>a, b</sup>	-.12 (.16)	-.10 (.16)	-.12 (.16)	-.13 (.16)	-.10 (.22)	-.31 (.25)
Instability <sup>a, b</sup>	-.06 (.11)	-.06 (.11)	-.06 (.10)	-.01 (.11)	-.11 (.14)	.05 (.19)
Military pers. <sup>a, c</sup>	.06 (.06)	.07 (.06)	.07 (.07)	.06 (.06)	-.004 (.06)	.33 (.25)
Oil <sup>b</sup>	-.02 (.11)	-.01 (.11)	-.07 (.10)	-.01 (.11)	-.34** (.15)	.05 (.19)
Noncontiguous state <sup>a, b</sup>	.28** (.13)	.29** (.13)	.29** (.13)	.30** (.13)	.30* (.17)	.33 (.25)
Regional concentration <sup>a, b, d</sup>	.13 (.11)	.13 (.11)	.14 (.11)	.11 (.11)	.28* (.16)	.14 (.19)
Majority in one region, others dispersed <sup>a, b, d</sup>	.24 (.15)	.24 (.15)	.22 (.15)	.23 (.15)	.18 (.16)	.62** (.29)
Urban or minority in one region <sup>a, b, d</sup>	.11 (.11)	.10 (.11)	.08 (.11)	.09 (.11)	.17 (.13)	.12 (.22)
% Mountainous terrain <sup>c</sup>	-.03 (.04)	-.02 (.04)	-.03 (.04)	-.02 (.04)	-.03 (.05)	.01 (.06)
Kindred in power <sup>a</sup>	-.05 (.04)	-.05 (.04)	-.06 (.04)	-.04 (.04)	-.07 (.06)	-.06 (.07)
Kindred across border <sup>a</sup>	-.01 (.03)	-.02 (.03)	-.02 (.03)	-.02 (.03)	-.06 (.05)	-.02 (.04)
Intercommunal conflict <sup>a, b</sup>	-.006 (.09)	.003 (.09)	-.02 (.09)	.008 (.09)	.02 (.11)	-.06 (.17)

Intracommunal conflict <sup>a, b</sup>	.12 (.08)	.12 (.08)	.12 (.08)	.13 (.08)	.14 (.12)	.08 (.16)
Protest behavior <sup>a</sup>	.01 (.04)	.008 (.04)	.01 (.04)	.02 (.04)	-.04 (.06)	.09 (.07)
Organizational cohesion <sup>a</sup>	.002 (.005)	-.008 (.008)	.002 (.005)	.001 (.01)	.005 (.008)	.0003 (.008)
Democracy <sup>a, b</sup>	-.13 (.16)	-.10 (.15)	-.11 (.16)	-.15 (.16)	-.07 (.23)	-.39 (.25)
Lost autonomy	.02 (.05)	.02 (.05)	.03 (.05)	.03 (.05)	.13** (.06)	-.06 (.09)
Migratory stressors <sup>a</sup>	.02 (.05)	.02 (.05)	.02 (.04)	.02 (.04)	.02 (.04)	.06 (.12)
Ecological stressors <sup>a</sup>	.03 (.03)	.02 (.03)	.03 (.03)	.02 (.03)	.01 (.03)	.03 (.04)
Religious fractionalization	-.04 (.27)	-.04 (.27)	-.07 (.27)	-.12 (.27)	-.58 (.35)	.31 (.47)
Ethnic fractionalization	.005 (.20)	.009 (.20)	.07 (.20)	-.03 (.20)	-.12 (.24)	.15 (.28)
Group distinctiveness (Identity strength)	-.006 (.02)	-.01 (.02)	.04 (.03)	-.003 (.02)	.01 (.04)	.09 (.08)
Constant	1.25* (.75)	1.45* (.75)	1.05 (.74)	1.55* (.80)	.43 (1.00)	1.78 (1.66)
# Observations	649	649	649	649	380	269
F-test	47.47	47.82	45.63	48.86	71.15	70.44
Prob> $\chi^2$	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
r <sup>2</sup>	.7671	.7682	.7687	.7683	.7928	..7732
# clusters for adjusted standard errors	201	201	201	201	113	88

\*= p<.1; \*\*=p<.05

<sup>a</sup>= lagged; <sup>b</sup>= dummy; <sup>c</sup>= logged; <sup>d</sup>= compared to baseline category of dispersed

Table 9: Time-series, cross-sectional OLS regression in low and high identity groups with fixed, random, and between effects and a lagged dependent variable

	high ID fixed	high ID random	high ID be	low ID fixed	low ID random	low ID be
SymbolicXRD	1.72 (1.25)	1.01** (.45)	.37 (.39)	-1.23 (1.54)	-.41 (1.03)	1.68 (1.25)
Rebellion <sup>a</sup>	.40** (.06)	.77** (.04)	.95** (.04)	.53** (.06)	.68** (.05)	.77** (.09)
Symbolic threats <sup>a</sup>	-.71 (1.34)	-.84* (.50)	-.47 (.44)	-.71 (1.38)	-.66 (.99)	-1.92 (1.34)
RD <sup>a</sup>	-.36 (.84)	-.20 (.19)	.01 (.16)	6.40** (.80)	1.18** (.35)	.28 (.38)
Repression <sup>a, b</sup>	-.17 (.18)	.01 (.15)	.45 (.30)	.11 (.18)	.30* (.17)	-.48 (.84)
Population <sup>a, c</sup>	-.07 (.79)	.05 (.08)	.08 (.07)	.98 (1.05)	-.11 (.19)	-.61** (.20)
GDP/cap <sup>a, c</sup>	-.63 (.52)	-.07 (.09)	-.03 (.09)	-.28 (.42)	-.02 (.18)	-.18 (.23)
Anocracy <sup>a, b</sup>	-.90** (.35)	.10 (.18)	.49** (.17)	.12 (.24)	-.11 (.20)	-1.25** (.59)
Instability <sup>a, b</sup>	-.05 (.17)	-.11 (.14)	-.16 (.17)	-.05 (.16)	-.09 (.16)	.25 (.65)
Military pers. <sup>a, c</sup>	.21 (.26)	.00006 (.08)	-.03 (.07)	-.50** (.23)	.19 (.14)	.41** (.17)
Oil <sup>b</sup>	.18 (.73)	-.35* (.19)	-.19 (.16)	.34 (.63)	.39 (.36)	-.46 (.42)
Noncontiguous state <sup>a, b</sup>	--	.30** (.15)	.20 (.13)	--	.09 (.43)	.72 (.44)
Regional concentration <sup>a, b, d</sup>	--	.29 (.19)	.17 (.16)	--	.09 (.44)	.03 (.42)
Majority in one region, others dispersed <sup>a, b, d</sup>	--	.18 (.20)	.17 (.17)	--	.79 (.50)	.69 (.50)
Urban or minority in one region <sup>a, b, d</sup>	--	.17 (.21)	.19 (.17)	--	-.03 (.54)	-.23 (.50)
% Mountainous terrain <sup>c</sup>	--	-.04 (.05)	-.03 (.04)	--	.07 (.11)	.03 (.11)
Kindred in power <sup>a</sup>	--	-.07 (.06)	.03 (.05)	--	-.05 (.15)	.07 (.14)
Kindred across border <sup>a</sup>	--	-.06 (.05)	-.04 (.05)	--	.10 (.12)	-.04 (.12)
Intercommunal conflict <sup>a, b</sup>	.10 (.20)	.02 (.11)	.08 (.11)	-.20 (.20)	-.11 (.28)	.25 (.34)
Intracommunal conflict <sup>a, b</sup>	--	.14 (.14)	.02 (.12)	--	-.06 (.32)	.34 (.32)
Protest behavior <sup>a</sup>	.08	-.04	-.07	.08	.08	.19

	(.06)	(.04)	(.05)	(.06)	(.06)	(.12)
Organizational cohesion <sup>a</sup>	-.03**	.005	.006	.005	.004	-.006
Democracy <sup>a, b</sup>	(.01)	(.006)	(.006)	(.01)	(.008)	(.01)
	-.79*	-.08	.27*	.34	-.10	-1.12**
	(.41)	(.18)	(.16)	(.32)	(.27)	(.51)
Lost autonomy	--	.12*	.02	--	-.04	-.20
		(.07)	(.06)		(.16)	(.15)
Migratory stressors <sup>a</sup>	.05	.02	.001	.38**	.23**	-.32**
	(.09)	(.04)	(.04)	(.09)	(.08)	(.15)
Ecological stressors <sup>a</sup>	-.09	.01	.02	-.06	-.03	.02
	(.06)	(.03)	(.03)	(.09)	(.07)	(.11)
Religious fractionalization	--	-.59*	-.50*	--	.13	.25
		(.33)	(.28)		(.71)	(.64)
Ethnic fractionalization	--	-.12	-.24	--	.68	.39
		(.26)	(.22)		(.67)	(.65)
Group distinctiveness (Identity strength)	--	.01	.04	--	.04	.12
		(.04)	(.03)		(.12)	(.11)
Constant	6.37	.51	-.85	-8.69	-.63	5.71**
	(8.32)	(1.08)	(.97)	(10.78)	(2.21)	(2.71)
# Observations	380	380	380	269	269	269
# groups	113	113	113	88	88	88
Avg. obs/group	3.4	3.4	3.4	3.1	3.1	3.1
F test	6.33	--	66.93	16.57	--	9.90
Wald $\chi^2$	--	1336.91	--	--	353.21	--
Prob> $\chi^2$ , F	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
within r <sup>2</sup>	.3009	.2141	.1753	.6321	.4932	.2016
between r <sup>2</sup>	.6192	.9402	.9590	.1614	.7299	.8319
overall r <sup>2</sup>	.5727	.7925	.7749	.1744	.7261	.7010
corr (u <sub>i</sub> , xb)	.0786	-- (0)	--	-.8261	-- (0)	--
sd(u <sub>i</sub> + avg(e <sub>i</sub> ))	--	--	.41	--	--	1.02
sigma_u	1.09	0.00	--	3.02	.93	--
sigma_e	.86	.86	--	.66	.66	--
rho	.62	0.00	--	.95	.66	--
F test that all u <sub>i</sub> =0	1.52	--	--	4.17	--	--
Prob>F	0.0035			0.0000		

\*= p<.1; \*\*=p<.05

<sup>a</sup>= lagged; <sup>b</sup>= dummy; <sup>c</sup>= logged; <sup>d</sup>= compared to baseline category of dispersed

Table 10: Hausman test for fixed versus random effects results based on “high ID” category in table 9

	fixed effects	random effects	Difference (f-r)
SymbolicXRD	1.72	1.01	.71
Rebellion	.40	.77	-.37
Symbolic threats	-.71	-.84	.12
RD	-.36	-.20	-.16
Repression	-.17	.01	-.18
Population	-.07	.05	-.12
GDP/cap	-.63	-.07	-.57
Anocracy	-.90	.09	-.99
Instability	-.05	-.11	.06
Military personnel	.21	.00006	.21
Oil	.18	-.35	.53
Intercommunal conflict	.10	.02	.08
Protest behavior	.08	-.04	.11
Organizational cohesion	-.03	.005	-.03
Democracy	-.79	-.08	-.71
Migratory stressors	.05	.02	.03
Ecological stressors	-.10	.01	-.11
$\chi^2$	112.02		
Prob> $\chi^2$	0.0000		

Table 11: Hausman test for fixed versus random effects results based on “low ID” category in table 9

	fixed effects	random effects	Difference (f-r)
SymbolicXRD	-1.23	-.41	-.82
Rebellion	.53	.68	-.14
Symbolic threats	-.71	-.66	-.04
RD	6.41	1.18	5.22
Repression	.11	.30	-.19
Population	.98	-.11	1.09
GDP/cap	-.28	-.02	-.26
Anocracy	.12	-.11	.23
Instability	-.05	-.09	.04
Military personnel	-.50	.10	-.60
Oil	.34	.38	-.03
Intercommunal conflict	-.20	-.11	-.08
Protest behavior	.08	.08	.00
Organizational cohesion	.005	.004	.001
Democracy	.34	-.10	.44
Migratory stressors	.38	.23	.15
Ecological stressors	-.06	-.03	-.03
$\chi^2$	124.12		
Prob> $\chi^2$	0.0000		

Table 12: Table two run with a lagged dependent variable

	Model 1	Model 2	Model 3	Model 4	Model 5 high ID	Model 6 low ID
DistinctXRD	--	--	-.09 (.18)	--	--	--
OrgcohesionXRD	--	.03 (.03)	--	--	--	--
SymbolicXRD	--	--	--	2.19 (1.38)	6.10** (1.83)	-5.05 (3.44)
Rebellion <sup>a</sup>	3.33** (.42)	3.33** (.34)	3.33 ** (.34)	3.32** (.34)	3.13** (.42)	3.77** (.92)
Symbolic threats <sup>a</sup>	-.05 (.40)	-.04 (.40)	.04 (.45)	-2.28 (1.52)	-5.26** (1.89)	3.44 (3.24)
RD <sup>a</sup>	.19 (.44)	-.30 (.71)	.70 (1.11)	-.21 (.52)	-1.87* (1.04)	1.57 (1.30)
Repression <sup>a, b</sup>	.47 (.65)	.45 (.66)	.50 (.65)	.46 (.66)	.23 (1.07)	2.24 (1.43)
Population <sup>a, c</sup>	-.23 (.21)	-.23 (.21)	-.25 (.22)	-.22 (.21)	-.02 (.31)	-2.11* (1.08)
GDP/cap <sup>a, c</sup>	-.45* (.23)	-.47** (.23)	-.43* (.24)	-.52** (.25)	-.24 (.36)	-.32 (.48)
Anocracy <sup>a, b</sup>	-.41 (.43)	-.37 (.42)	-.43 (.44)	-.40 (.44)	-.27 (.74)	-1.50 (1.54)
Instability <sup>a, b</sup>	-.15 (.52)	-.17 (.52)	-.17 (.51)	-.15 (.50)	-.24 (.59)	.39 (1.39)
Military pers. <sup>a, c</sup>	.20 (.21)	.21 (.21)	.20 (.21)	.23 (.21)	.20 (.30)	.96 (.79)
Oil <sup>b</sup>	-.68 (.50)	-.65 (.50)	-.75 (.51)	-.68 (.50)	-1.96** (.75)	-1.42 (1.55)
Noncontiguous state <sup>a, b</sup>	1.24** (.41)	1.22** (.41)	1.28** (.40)	1.32** (.41)	1.30** (.57)	3.94** (1.79)
Regional concentration <sup>a, b, d</sup>	.47 (.66)	.44 (.67)	.51 (.65)	.38 (.65)	1.27 (1.00)	3.24* (1.69)
Majority in one region, others dispersed <sup>a, b, d</sup>	.51 (.75)	.48 (.74)	.54 (.73)	.49 (.70)	1.13 (1.06)	5.49** (2.28)
Urban or minority in one region <sup>a, b, d</sup>	.54 (.67)	.52 (.67)	.54 (.67)	.55 (.65)	.63 (1.07)	2.15 (2.09)
% Mountainous terrain <sup>c</sup>	-.04 (.13)	-.04 (.13)	-.04 (.13)	-.06 (.12)	.03 (.17)	.17 (.29)
Kindred in power <sup>a</sup>	-.23* (.13)	-.23* (.13)	-.23* (.13)	-.24* (.13)	-.26 (.17)	-.23 (.56)
Kindred across border <sup>a</sup>	-.06 (.11)	-.06 (.22)	-.07 (.11)	-.08 (.11)	-.21 (.18)	-.54 (.43)
Intercommunal conflict <sup>a, b</sup>	-.10 (.36)	-.07 (.36)	-.11 (.35)	-.09 (.36)	.11 (.48)	-.50 (.84)

Intracommunal conflict <sup>a, b</sup>	.52*	.52*	.51*	.51*	.62	1.67**
	(.29)	(.29)	(.30)	(.29)	(.47)	(.65)
Protest behavior <sup>a</sup>	.14	.13	.14	.14	-.17	.60*
	(.13)	(.13)	(.13)	(.14)	(.24)	(.31)
Organizational cohesion <sup>a</sup>	.01	-.006	.01	.007	.02	.01
	(.02)	(.03)	(.02)	(.02)	(.04)	(.04)
Democracy <sup>a, b</sup>	-.35	-.29	-.36	-.45	-.76	-2.25
	(.49)	(.49)	(.50)	(.51)	(.74)	(1.86)
Lost autonomy	.06	.06	.07	.08	.60**	-.91
	(.15)	(.16)	(.15)	(.16)	(.23)	(.64)
Migratory stressors <sup>a</sup>	.07	.06	.07	.04	-.09	.32
	(.16)	(.16)	(.16)	(.16)	(.14)	(.38)
Ecological stressors <sup>a</sup>	.05	.05	.06	.06	.04	-.13
	(.08)	(.08)	(.08)	(.08)	(.12)	(.29)
Religious fractionalization	.22	.24	.17	-.21	-3.37**	3.14*
	(.83)	(.84)	(.85)	(.88)	(1.48)	(1.85)
Ethnic fractionalization	-.19	-.22	-.12	-.34	.20	-.22
	(.79)	(.79)	(.80)	(.77)	(.89)	(2.34)
Group distinctiveness (Identity strength)	.03	.03	.08	.02	-.07	.25
	(.07)	(.07)	(.12)	(.07)	(.17)	(.40)
Cut 1	-1.90	-2.31	-.89	-3.04	-.06	-11.22
Cut 2	.61	.19	1.63	-.53	2.87	-8.79
# Observations	649	649	649	649	380	269
Wald $\chi^2$	311.77	318.17	315.91	334.93	333.10	187.92
	(31)	(32)	(32)	(32)	(32)	(32)
Prob> $\chi^2$	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Log pseudolikelihood	-212.96	-212.72	-212.80	-211.56	-122.15	-63.20
Pseudo $r^2$	.5798	.5803	.5802	.5826	.6074	.6728
# clusters for adjusted standard errors	201	201	201	201	113	88