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Does discrimination breed grievances—and do grievances breed violence? New evidence from an analysis of religious minorities in developing countries

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Abstract
Since Ted Gurr's *Why Men Rebel* it has become conventional wisdom that (relative) deprivation creates grievances and that these grievances in turn lead to intergroup violence. Recently, studies have yielded evidence that the exclusion of ethnic groups is a substantial conflict risk. From a theoretical angle, the relationship is straightforward and is likely to unfold as a causal chain that runs from objective discrimination to (subjective) grievances and then to violence. We test this proposition with unique group-format data on 433 religious minorities in the developing world from 1990 to 2008. While religious discrimination indeed increases the likelihood of grievances, neither grievances nor discrimination are connected to violence. This finding is supported by a

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large number of robustness checks. Conceptually, discrimination and grievances can take very different shapes and opportunity plays a much bigger role than any grievance-based approach expects.

Keywords

Developing countries, discrimination, grievances, intrastate violence, relative deprivation, religious minorities

Introduction[1]

Since Ted Gurr's *Why Men Rebel* (Gurr, 1970), it seems to have become conventional wisdom—that is, deeply ingrained in the general public intuition of Western societies—that deprivation creates grievances and that these grievances in turn lead to intergroup violence. Anecdotal evidence from around the world indeed suggests that ethnic, religious and other identity groups rebel because they are marginalized. In Saddam's Iraq, Shiite Muslims rose against a secular Sunni regime. In contemporary Syria, the civil war is also about the grievances of the Sunni majority under a regime dominated by Alawites. Catholics in Northern Ireland took up arms against a Protestant majority. Ted R. Gurr (1993, 2000; Gurr and Moore, 1997) found evidence that the exclusion of ethnic groups is indeed a substantial conflict risk. More recently, a string of large-N contributions by Cederman, Wimmer and colleagues (e.g. Cederman et al., 2010; Wimmer et al., 2009; Wucherpfennig et al., 2012) have confirmed these results. There is also preliminary evidence that religious discrimination may produce similar conflict risks (Akbaba and Taydas, 2011).

From a theoretical angle, the relationship is straightforward and is expected to unfold according to the following causal chain: discrimination against religious or other identity groups will create motives for violence based on grievances, thus easing the collective action problems of organized violence, which, ceteris paribus, will lead to more violence.

We test this proposition with new group-based data on 433 religious groups in the developing world from 1990 to 2008. This focus is novel because most studies of religion and conflict focus on the country level and the few that use the group level of analysis include only a fraction of the world's religious minorities. Using religious instead of ethnic groups also creates two methodological advantages: first, the identification of religious groups leaves less room for interpretation; second, the existing tests of ethnic minorities' grievances use only politically active ethnic minorities, while our dataset includes all religious minorities. As we discuss in more detail below, these selection bias issues have resulted in significant critiques of previous studies. Our efforts to avoid these issues allow for increased confidence in our results.

The results from a range of logistic regressions, including several alternative specifications and variable operationalizations, suggest that grievances are not a major source of religious violence. While, as expected, religious discrimination indeed increases the likelihood of grievances, this relationship is far from deterministic. More importantly, neither grievances nor discrimination are connected to violence, as a large number of robustness checks show.

We conclude that the debate has to question the relationship between grievances and violence: supported by regression results as well as anecdotal evidence on minorities that are heavily marginalized, we find that opportunity plays a much bigger role than the motive-centered theory on "grievances" and "deprivations" expects. Regarding future research, a

number of challenges remain, inter alia that grievances are not all alike and probably need conceptual refinement.

The remainder of this paper proceeds as follows: we first review the literature on the link between grievances and violence, focusing on the religion–conflict link. We then develop our theoretical argument, formulating two hypotheses. In the subsequent sections we present our data and empirical strategy before discussing the results. We conclude with a number of suggestions for future research.

Literature review

Discrimination, grievances and conflict

The theoretical link between discrimination, grievances and conflict has a long history in the social sciences. The most prominent early work on this topic is Ted R. Gurr's (1970)*Why Men Rebel*, which is one of several works from around that time that put forward relative deprivation theory.[2] All of these theories argue that, when a group compares itself with some other point of comparison and finds its situation lacking, this can lead to frustration, which can in turn lead to conflict. This point of comparison can be another group, the situation in another country, the past or what the group believes it deserves, among many other things. This literature considered economic deprivation and political or other discrimination important sources of relative deprivation.

Over the subsequent two decades, this theory created a prominent research agenda that essentially failed to prove the theory. In a review of the literature, Lichbach (1989) found the studies testing the link between economic deprivation and conflict to be inconsistent, with some finding the predicted relationship, some finding no relationship, some finding the opposite relationship and others finding more complex relationships that are not consistent with the theory. He attributed these differences to different measurements for both the dependent and independent variables as well as the use of different controls, which were also measured differently from study to study. Muller (1980), focusing on survey-based literature from the 1960s and 1970s, found almost no support for a link between objective discrimination and frustration. Brush (1996) tracked 649 studies that more specifically cited and addressed Gurr (1970). He found that, while many studies agreed with the theory, almost none of them provided empirical evidence. Most empirical studies found the evidence for the theory to be lacking. Over time, critiques of the theory became far more common than studies supporting it.

In addition, many began to criticize the argument theoretically, for several reasons. The theory assumes that the absence of violence is normal and that violence is irrational rather than rational and goal seeking. Yet there have been many instances of relative deprivation where no violence has occurred. Finally, the theory uses an individual-level dynamic to explain a group-level phenomenon (Brush, 1996; Rule, 1988).

In this environment, Gurr (1993, 2000; Gurr and Moore, 1997) reformulated his theory to argue that discrimination or objective differentials between groups lead to group-level grievances that begin a process that can cause conflict. This new formulation incorporated theoretical arguments from others, most prominently Charles Tilly (1978). It also avoided most of the theoretical and methodological problems that had become apparent in the studies that tested relative deprivation theory. In particular—and unlike most relative deprivation formulations, which focused on grievances at the individual level—the studies by Gurr and colleagues focused on collective grievances at the group level. They used the

Minorities at Risk (MAR) dataset, which included over 300 politically active ethnic minorities, and found significant evidence to support the revised theory.

However, even in this formulation methodological issues arose. The MAR's focus only on politically active minorities was criticized as "selection bias" because it included no null cases—cases of politically inactive ethnic minorities (Fearon and Laitin, 1997; Hug, 2003). This critique applies to most other studies of ethnic conflict, such as Cederman et al. (2010), Wimmer et al. (2009) and Wucherpfennig et al. (2012), which use the same criteria to choose politically active ethnic minorities for study. That said, this critique is likely to be exaggerated in that, at worst, it means that significant relationships may have lower levels of statistical significance than they would if the null cases were included. Nevertheless, this critique has gained wide acceptance and has undermined the degree of confidence in existing studies (Birnir et al., 2012; Hug, 2003). Accordingly, testing the link between discrimination, grievances, and conflict using all possible cases can help determine whether this selection bias issue has in fact influenced the outcomes of previous studies, as well as the relationship that exists when all cases and not a selection of cases are used.

It is important to note that, while Gurr's (1993, 2000) model uses both violence, as measured by his "rebellion" variable, and protest, most subsequent studies using both the MAR and other data have focused on violence. This focus on violence is consistent with Gurr's ethnic-based models of conflict. Gurr (1988, 1993, 2000) does not view protest as a step on the way to violent conflict but rather as another manifestation of conflict. Structural factors such as regime type and repression, among others, determine whether conflict will manifest in non-violent political activities such as protest or in violent conflict. The few MAR-based studies that use protest as a dependent variable focus on ethnoreligious conflict and find either no link or a negative link between religious discrimination and grievances on the one hand and protest on the other (Akbaba and Taydas, 2011; Fox, 1997, 2002, 2004). Finally, the non-MAR-based studies of ethnic conflict do not include protest in their statistical models (e.g. Cederman et al., 2010; Wimmer et al., 2009; Wucherpfennig et al., 2012). Given all of this, this study's focus on violent conflict is appropriate.

Thus, this study, in the tradition of these previous studies, applies Gurr's (1993, 2000) model to the question of whether group-level discrimination and grievances lead to violent conflict among religious minorities. As we argue below, the tests performed here apply to a valid population for testing this relationship that has not been tested before and that, in addition, has several advantages over the populations used in previous tests. Thus, the study makes an important contribution to the literature on the topic.

Religious vs ethnic minorities

Previous tests of the collective grievances–conflict hypothesis have all focused on ethnic minorities (e.g. Cederman et al., 2010; Fox, 2004; Gurr, 1993, 2000; Gurr and Moore, 1997; Wimmer et al., 2009; Wucherpfennig et al., 2012). We argue that religious minorities constitute an equally valid and perhaps superior universe of cases with which to test this hypothesis. Ethnic and religious minorities overlap but are not identical. It is possible to be an ethnic minority but belong to the same religion as the majority in a state, as is the case for the Kurds in several Middle Eastern countries and the Basques in France and Spain. It is also possible to be a religious minority without being considered an ethnic minority, as is the case for Mormons in the United States and Christian Arabs in several Middle Eastern states. Thus, looking at either ethnic or religious minorities alone will not cover all possible

minorities in a state, and there is no a priori reason why religious minorities constitute a less valid configuration for testing the grievances–conflict hypothesis than ethnic minorities.

Arguably, testing religious minorities has at least two advantages. First, there is some dispute over what constitutes an ethnic minority. When asked to list ethnic minorities, different scholars arrive at different lists because the definition leaves much room for interpretation (Gurr, 1993; Horowitz, 1985). In contrast, identifying religious minorities is less problematic. Second, as noted above, the existing tests using ethnic minorities use only politically active ethnic minorities. Data that include all ethnic minorities, whether active or not, do not exist. In contrast, the data used here include all religious minorities that meet a minimum population cutoff within the state; hence, this study arguably tests a more complete universe of cases.

Religion and conflict

A small number of studies have examined the impact of religion on ethnic conflict using the MAR data. Fox (1997, 2002, 2004) and Akbaba and Taydas (2011) expanded Gurr's (1993, 2000) arguments and variables to also apply to religious discrimination and grievances, arguing that religious discrimination and grievances would have similar influence and dynamics in the context of ethnic conflict to the other types of discrimination and grievances examined by Gurr.[3] While all of these studies found a strong link between religious discrimination and grievances, the results for the link between grievances and conflict were mixed. The studies found either a null (Fox, 1997, 2002, 2004) or negative (Akbaba and Tydas, 2011) relationship between religious grievances and protest. Fox (2002, 2004) found that religious grievances were linked to rebellion only when mediated by demands for autonomy. Akbaba and Taydas (2011) found a more direct relationship between religious grievances and political violence. However the "selection bias" issue was even more present in these studies than in the general analyses of MAR data. This is because the subset of ethnic minorities who also happen to be religious minorities is not representative of all religious minorities, many of whom are not considered to be ethnic minorities by MAR criteria but are nevertheless politically active.

There are many additional studies of religion and domestic conflict, but all of them use the state as the unit of analysis. The clear majority of quantitative studies of religious conflict focus solely on religious identity, that is, where groups belonging to different religions are more violent or whether interreligious conflicts are more violent than intrareligious conflict, or they focus on religious diversity, that is, they create a single demographic variable to measure the extent of religious diversity in a state. Most of them find religious identity or diversity to influence the extent of conflict (De Soysa and Nordås, 2007; Ellingsen, 2005; Gartzke and Gleditsch, 2006; Olzak, 2011; Reynal-Querol, 2002; Rummel, 1997; Sambanis, 2001; Toft, 2007; Vanhanen, 1999), but there are some studies that disagree with this finding (Collier and Hoeffler, 2002; Fearon and Laitin, 2003; Lacina, 2006; Pearce, 2005; Sørli et al., 2005). A few go beyond this question to look at the religious content of conflict. Svensson (2007), Svensson and Harding (2011) and Toft (2007) account for whether participants in a conflict make religious demands and find that these demands make conflicts more intractable.

Finally, a number of studies have examined the influence of religion on domestic conflict through the prism of Huntington's (1993, 1996) clash of civilizations theory. In this theory, he posited that post-Cold War conflict would primarily be between different "civilizations"

that were mostly religiously homogeneous. However, all the studies that have used multivariate analysis to test this proposition have found no link between Huntington's concept of civilization and conflict (Ellingsen, 2000; Fox, 2004; Gurr, 1994; Henderson and Singer, 2000; Roeder, 2003; Sambanis, 2001; Sørli et al., 2005).

Overall, no study of religion and conflict, or for that matter no study of ethnic conflict, has examined the causes of conflict by looking at all minorities. All previous studies have either investigated conflict at the country level or excluded the majority of relevant minorities because they were not politically active. In contrast, this study examines all religious minorities (that meet a minimum population cutoff of 0.25%).

Disentangling the causal chain: discrimination, grievances, violence

As outlined in the literature review, different approaches have been used to try to explain why and how religion and/or discrimination may lead to violence. Our theoretical framework uses the notion of collective action as a starting point (see, e.g. Kalyvas and Kocher, 2007; Lichbach, 1998; Olson, 1965). If we model rebellion as a specific form of collective action, any group or political leader has to overcome particular problems in order to effectively mobilize people for the violent action of rebellion. In order to achieve this goal, both the motive and the opportunity for rebellion have to exist (see e.g. Collier and Hoeffler, 2004). Similarly to the case in a crime story, as Collier and Hoeffler argue, there must be a willingness to engage in violent collective action; additionally, such action also has to be feasible—that is, the opportunity to engage in conflict has to exist as well.

Gurr's (1993, 2000) concept of discrimination includes restrictions on the activities or institutions of minorities. For example, the MAR variable for political discrimination includes restrictions on activities such as expression, movement, and voting. It also includes restrictions on political organizations. The MAR cultural discrimination variable similarly includes restrictions on activities such as speaking, publishing, or teaching in a minority language, the celebration of ethnic holidays, and wearing ethnic dress as well as restrictions on organizations that "promote the group's cultural interests".[4] Accordingly, as we discuss in more detail below in the data section, we define religious discrimination as restrictions placed on a religious minority's religious practices and religious institutions.

Discrimination against religious groups by the state can cause violent collective action in many forms. Obviously, discrimination provides a strong motive, in the form of grievances, for the rank and file of religious groups. These grievances increase people's readiness to rise against the state as the source of discrimination. From the perspective of a political leader, discrimination and, perhaps, previously existing grievances[5] constitute an opportunity to organize a rebellion. Opportunity, not just from the perspective of leaders, further stems from the fact that the discrimination targets a religious identity group. Group ties will be strengthened and the common identity can be used even more effectively for mobilization. We expect an overarching causal chain that starts with discrimination against religious groups, which in turn produces substantial grievances, which group leaders can then capitalize on to organize violent collective action.[6]

We would like to stress that discrimination and grievances are not identical; rather, they are distinct. Discrimination is the objective state of marginalization or deprivation or activities by governments intended to restrict minority activities. Grievances, according to our understanding, are the subjective and explicit perception of being discriminated against (or

being subjectively marginalized or otherwise deprived). While, as outlined above, Gurr (1993, 2000) stresses this distinction, a large part of the literature tends either to unconsciously collapse these two notions or to look at one or the other. Cederman, Wimmer and colleagues, for instance, look at objective discrimination and other forms of exclusion from the perspective of power only (e.g. Wimmer et al., 2009). Collier and Hoeffler (2004) view grievances as an objective state rather than a perception, which however, is not explicitly spelled out. We think that distinguishing between the two is theoretically very important. Grievances link discrimination and organized violence, and it is only assumed that grievances directly and perhaps deterministically result from discrimination. Likewise, conflict is only believed to be a consequence of grievances. For the causal chain to be theoretically valid, we must observe all the subrelationships. Hence, we formulate two main hypotheses that apply this general reasoning regarding discrimination, grievances and conflict to the specific case of religious discrimination and grievances:

H1: If religious groups are objectively discriminated against by the state, these groups will develop grievances over such discrimination.

H2: If religious groups hold grievances over discrimination by the state, these groups are more likely to be involved in armed and other violent conflict.

Data and empirical strategy

The datasets

The causal chain from discrimination to grievances and then to conflict participation on the part of religious minority groups has so far not been tested in a study that includes all religious minorities, and this is at least partly due to an absence of data on grievances. Hence, our novel dataset allows for exactly this analysis. The data used in this paper combine variables from the Religion and Conflict in Developing Countries database (RCDC; see Basedau et al., 2014), newly compiled for this purpose, and the Religion and State Minorities (RASM) database, which is based on the Religion and State Project Round 2 dataset (Akbaba and Fox, 2012; Fox, 2011, 2013). The combined dataset covers the years 1990–2008 and includes 433 minorities from 127 countries in Asia, Latin America, the Middle East, and sub-Saharan Africa. The data are coded separately for each religious minority group that meets a population threshold of 0.25% of the population, regardless of whether or not it is politically active.[7] In order to distinguish between the various Christian and Muslim groups, the dataset identifies the most appropriate subgroup (e.g. Christian Catholic, Christian Protestant) whenever possible. If this is not possible, a general term (Christian general and Muslim general) is used. The data are coded by religious minority group and year and include information on 433 religious minority groups and a maximum of 8227 observations per variable.

Both dependent variables—grievances and conflict involvement—are based on information from the various annual Religious Freedom Reports and Human Rights Practices Country Reports (both compiled by the US Department of State) as well as Economist Intelligence Unit Country Reports, which are published (at least) on a quarterly basis.[8] It is likely that not every possible and relevant event has been coded owing to the somewhat limited information provided by the sources. Arguably, the coding sources may be biased in

favor of more easily accessible information or events that are considered particularly relevant both domestically and internationally. However, the latter aspect suggests that the events included in our database represent the incidents deemed most significant in the country itself and—most importantly—by the respective religious minority groups. Moreover, every coding has been checked by one senior researcher in order to ensure the quality of the data.

The dataset also includes a precision code for every variable at the group level owing to the possible mismatch between the group level and the level of information given in the sources. The precision code indicates "precise" if the sources use the same terminology for the religious group as that noted on the code sheet (e.g. "Christian, Catholics", "Islam, Sunni"). The code indicates "imprecise" if the sources do not use the group name mentioned on the code sheet (e.g. the information is at a higher (e.g. "Christians, general") or lower level of aggregation). For example, the religious minority group data differentiate between Catholics, Anglicans and Protestants, but the sources used for coding *grievances* and *conflict involvement* only provide information about "Christians" in general. In this case, we would use the code "imprecise" if this specific community (e.g. Catholics) felt discriminated against or was involved in a violent conflict.[9]

Operationalization of dependent and independent variables

In order to test whether or not discrimination against religious minorities by the government has an impact on articulated grievances, we employ *grievances* as our first dependent variable (Hypothesis 1). The variable measures whether or not a religious minority group feels discriminated against. The variable is constructed as binary (0/1), and we code *grievances* only if representatives of the religious community or the adherents themselves claim that they are discriminated against and not if the sources indicate an "objective" state of discrimination against the religious group. The Sunni minority in Iran, for example, has expressed grievances owing to discrimination by governmental officials, who refused to authorize the construction of Sunni mosques in Tehran. Evangelical Christians in Sri Lanka, who constitute less than 1% of the population, have felt discriminated against by local Buddhist clergy and government officials in their efforts to proselytize.[10]

In most of the cases, the sources indicate that "Christians", "Muslims", or "religious minorities" have felt discriminated against. For example, the Religious Freedom Report (US Department of State, 2002) reports on Bolivia that: "The country's small Muslim community complained to the Government of discrimination against it by a minority of private citizens in the fall of 2001". In this case, we coded that the Muslims felt they were discriminated against. In Eritrea, "there were some complaints that the government discriminated against the Muslim community and Catholics because the government offered tax relief to Orthodox churches but not to some mosques and Catholic churches" (US Department of State, 2005). We coded "grievances" for both the Muslims and the Catholics. These examples demonstrate that the data sources do not allow for more disaggregated coding—for instance, identifying how many members of the religious minority felt discriminated against or who raised the grievance. We believe, however, that the variable is the best measure used to date to capture the grievances of religious minorities in a country.

In our dataset, approximately 20% of the group-years are coded as having explicitly voiced grievances. Among these observations of voiced grievances, the group of Christians in general accounts for 20% of the instances. It is followed by Muslims (18%) and adherents

of animist sects, ancestor worship, and traditional beliefs (13%). Specific subgroups of the two major world religions, such as Protestant Christians and Shiites as well as Hindus and Buddhists, make up between 5 and 8% of the observed grievances.

In the second part of the analysis, we test Hypothesis 2 and use the (hitherto dependent) variable *grievances* of the religious minority group as an explanatory factor. The second main dependent variable measures the *conflict involvement* of a religious minority group. The variable is coded positively if the religious minority group is involved, in a given year, in an armed conflict characterized by the different religious affiliation of the conflict parties.[11] The information on the onset of an armed conflict originates from the UCDP/PRIO Armed Conflict Dataset (version 4/2011). Information on the interreligious character of the armed conflict has been added on the basis of RCDC sources and additional case literature (see Basedau et al., 2014). The question in the RCDC codebook is as follows: "Was this religious (identity) group part of an armed conflict with conflict parties differing by religious affiliation?" Examples include armed conflicts in Côte d'Ivoire (2002) (Christians vs Muslims), India (Hindus vs Christians in the Nagaland conflict), or the Philippines (Muslims vs Christians). In total, we have coded 263 conflict years and 78 onsets of religious armed conflict, which are equivalent to approximately 3 and 1% of all group-years, respectively.

For the analysis of determinants of grievances, we have included *discrimination* against a religious minority group by a government as an explanatory variable, measured through a multicomponent index (*mmx*) as provided in the RASM. The RASM includes 29 variables that measure discrimination against religious minorities by the government. Examples of religious discrimination include anti-religious propaganda in official or semi-official government publications or restrictions on the wearing of religious symbols or clothing. The primary sources for the coding are constitutions and the texts of legislation and government policy papers regarding religion. Additionally, the RASM uses news articles, academic journal articles and books, and reports by governmental organizations (e.g. International Religious Freedom Reports) and non-governmental groups (e.g. Amnesty International).

To ensure data quality, all codings were checked by the project director (Fox 2011).[12] For our main models we use the additive index of the 29 distinct discrimination variables, each of which is scaled from 0 to 2.[13] While in theory this means the data can span from 0 to 58, no minority suffers from the most severe form of all 29 types of discrimination, so the data analyzed ranges from 0 to 38.[14] In our overall sample, the average value of the discrimination index is approximately 4.5, but with a standard deviation of 7.6, indicating a clear skew. Figure 1 shows a histogram for the discrimination index and illustrates the discrimination across groups. Interestingly, the bivariate correlation between the discrimination index and the grievance variable is positive but only 0.13, indicating that the link between group discrimination and perceived grievance is much more tenuous than one might expect.

Control variables

We consider a number of important control variables to account for omitted variable bias, which might affect our findings. In particular, we include variables that also affect the opportunity and motive to develop grievances and/or to engage in violent collective action. For both analyses we include the percentage of the religious minority group in a country beyond the threshold of 0.25 (*Minority Population*). We believe that more populous groups will have more opportunity to engage in violence than others. We also include a series of dummy variables for the different types of religious groups (*Religion Type*, e.g. *Catholic Christian, Sunni*
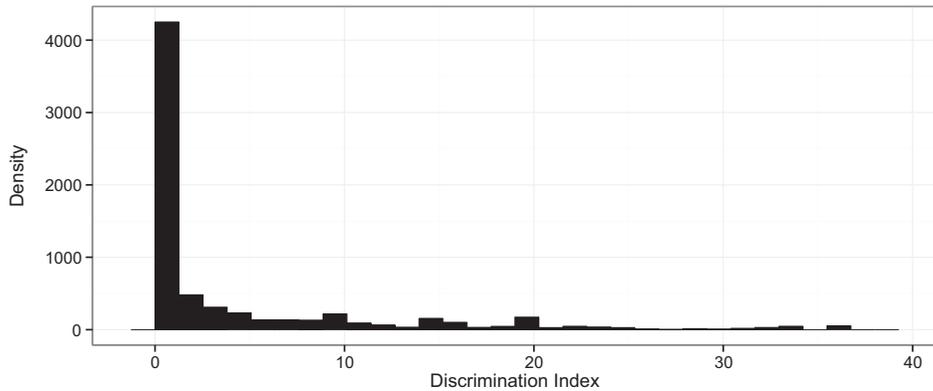
Figure 1. Histogram of the discrimination index.

Islam, etc.) in case distinct features of a religious subgroup make it more or less prone to be the subject of discrimination, feel aggrieved, or be part of a violent conflict. The *Minority Population* and *Religion Type* variables are taken from RASM.

Furthermore, we control for the political and socioeconomic structure of the country through the natural logarithm of the total population (*Log of Population*) and the natural logarithm of per capita GDP *(Log GDP per capita)*. Both variables are taken from the World Development Indicators of the World Bank. We include variables measuring the level of democracy (*Polity 2 Score*)—that is, the revised combined polity score—and the years since the most recent regime change (*Regime Durability*). Both are taken from the Polity IV Project.[15] For the analysis of the determinants of conflict involvement, we also include rough terrain *(Rough Terrain)*, which is taken from Hegre and Sambanis (2006). For both analyses we focus on onset models—that is, we estimate the effect of discrimination on the onset of grievances and the effect of grievances on the onset of violence. To deal with time dependence in this grouped time-series cross-sectional binary dependent variable data, we also include a simple polynomial of *No Event/Peace Years* (Carter and Signorino, 2010). For further robustness checks we consider additional variables, described in more detail below. A full set of summary statistics on all the variables of the onset models is presented in the Supplementary Appendix.

Estimation strategy

The goal of our two-step analysis is to estimate the effect of discrimination on grievances and of grievances on a religious minority group's involvement in violent conflict. Since we are dealing with data on religious groups nested in country-years, a generalized linear model offers a useful estimation framework. Specifically, both grievances and violent conflict onset are binary dependent variables, and we model the probability of a "success" as $P(Y = 1/X) = \mu = g(\eta)$ where $g(.)$ is the logit link. The linear predictor η_{ijt} for group i in country j at time t is a function of the main independent variables of interest and the control variables mentioned above.

We start by estimating standard logit models, but then proceed to implement hierarchical logit models with random effects at the country or country-group level. These random

intercept models allow us to model heterogeneity across countries or country groups, while still pooling information across cases (Gelman and Hill, 2008). The standard random effects model assumes that the random intercepts come from a normal distribution that is uncorrelated with covariates. There still exists the concern of unobserved country and country-group effects that bias our estimates. One way to account for this unobserved heterogeneity in the context of a hierarchical model is to rely on correlated random effects models that simply include country or country-group-level means of the main independent variables (Bell and Jones, 2012). Generally, our models take the following form:

$$\eta_{ijt}^{grievance} = \alpha_{ij} + year_t + \delta d_{ijt} + x_{ijt}'\beta + \overline{w}\gamma$$

$$\eta_{ijt}^{violence} = \alpha_{ij} + year_t + \tau g_{ijt} + x_{ijt}'\beta + \overline{w}\gamma$$

In the first equation we model the grievances of group i in country j in year t as a function of a country/country-group random effect α_{ij} that has a normal distribution; year dummies $year_t$; the effect of group discrimination δd_{ijt}; control variables $x_{ijt}'\beta$ at the group or country level (and the *No Event* polynomial); and, for the correlated random effects models, the term $\overline{w}\gamma$, which represents the country/country-group means of the discrimination variable. We estimate a structurally equivalent model for the violence dependent variable, but rely largely on standard logit or fixed effects ordinary least squares (OLS) models owing to problems of non-convergence in the logit random effects models.[16] Importantly, the correlated random effects or fixed effects models (plus the inclusion of year dummies) control for a host of unobservable factors not explicitly modelled through the covariates. This approach addresses some standard endogeneity concerns. The correlated random effects and fixed effects models correct for any time-invariant unobserved effects at the country or country-group level. Following the suggestions made by Ray (2003), we have further tested our main models by leaving out the controls and including only the main explanatory variables. Despite this approach, the interpretation of effects as causal should be made with caution given the observational character of the data. To account for heteroskedasticity and arbitrary serial correlation, we cluster the standard errors at the country or country-group level.

Results

Table 1 presents the results of the relationship between objective discrimination against a religious minority group and its grievances about such discrimination. According to our expectations, a higher level of religious discrimination by governments indeed increases the likelihood that a religious minority group feels discriminated against. The variable *discrimination* is positively related to group grievance and highly significant in our two standard logit models (models 1 and 2 of Table 1 and Figure 1). Employing different model specifications does not alter the results substantially. The *discrimination* remains significant in the standard random effects models (models 3 and 4). For the correlated random effects model at the country level, the coefficient becomes negative but is far from standard levels of statistical significance (model 5). Importantly though, for the correlated random effects model at the country-group level, we again find a positive and highly statistically significant coefficient for the discrimination variable (model 6). Table 2 presents the isolated effect of objective discrimination against a religious minority group and its grievances about such discrimination. The findings do not change qualitatively in comparison to the multivariate models reported
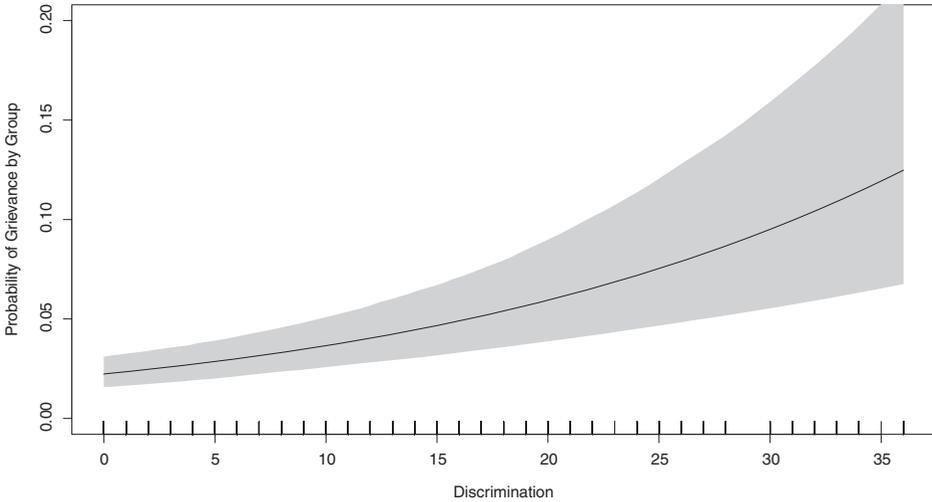
Table 1. Determinants of grievances

	(1)	(2)	(3)	(4)	(5)	(6)
	Logit	Logit	RE logit	RE logit	Correlated RE logit	Correlated RE logit
Discrimination (lagged)	0.0509***	0.0509***	0.00975	0.0518***	−0.0145	0.137*
	(0.0138)	(0.0116)	(0.0211)	(0.0154)	(0.0249)	(0.0687)
Minority population	0.00376	0.00376	0.00652	0.00699	0.00555	0.00688
	(0.00816)	(0.00756)	(0.00946)	(0.00909)	(0.00947)	(0.00899)
Log of population	0.679***	0.679***	1.148***	0.774***	1.037**	0.785***
	(0.184)	(0.106)	(0.323)	(0.148)	(0.324)	(0.147)
Log GDP per capita	0.145	0.145	0.235	0.128	0.135	0.146
	(0.246)	(0.146)	(0.348)	(0.181)	(0.351)	(0.180)
Polity 2 score	0.0348[+]	0.0348*	−0.0171	0.0199	0.00107	0.0184
	(0.0202)	(0.0146)	(0.0258)	(0.0170)	(0.0277)	(0.0170)
Regime durability	−0.000542	−0.000542	0.0100	−0.00117	0.00960	−0.00110
	(0.00665)	(0.00378)	(0.0102)	(0.00546)	(0.0102)	(0.00539)
Religion type	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted
Constant	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted
No event polynomial	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted
Year effects	No	No	Yes	Yes	Yes	Yes
Discrimination mean	No	No	No	No	Yes	Yes
Clustering	Country	Country-group	Country	Country-group	Country	Country-group
Observations	5935	5935	5935	5935	5935	5935

Clustered standard errors in parentheses: $^{+}p < 0.10$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$.

in Table 1. Overall, we can substantiate our first hypothesis (H1) about the link between discrimination and group grievances.

Figure 2 illustrates the statistical and substantive significance of this relationship. Higher levels of the composite discrimination variable are related to a higher probability of grievances among religious minority groups. As we move from the minimum of the index to the maximum, the probability of grievances within a group increases from approximately 2% to approximately 12%, on average. This means that grievances become six times likelier. At the same time, however, it has to be noted that this relationship is far from deterministic. Apparently, grievances are often expressed in the absence of explicit discrimination by the state, and some groups do not voice grievances despite high levels of objective discrimination.

With regard to our remaining control variables, only *log population* is consistently linked to subjective grievances, with some weaker evidence for the level of democracy or development (Table 1). A minority group's size does not seem to play a role in that group's perception of being marginalized—which could have been expected because grievances should be independent of size. Concerning the question of whether or not different types of religious groups might be more (or less) prone to experience grievances, our results remain inconclusive. The standard logistic estimations point, for instance, to a higher probability that Christian, Protestant, animist, and Bahaist minority groups do not maintain grievances. The results for the religious group variables are, however, very sensitive to model specifications and should not be overinterpreted.

Figure 2. Substantive effect of discrimination on the probability of grievances; 95% confidence interval shaded in gray.

Table 2. Determinants of grievances (excluding control variables)

	(1)	(2)	(3)	(4)	(5)	(6)
	Logit	Logit	RE logit	RE logit	Correlated RE logit	Correlated RE logit
Discrimination (lagged)	0.0444*** (0.0108)	0.0444*** (0.00738)	0.0265 (0.0161)	0.0532*** (0.0118)	0.00101 (0.0207)	0.111[+] (0.0659)
Discrimination (country mean)					0.0647[+] (0.0334)	
Discrimination (country-group mean)						−0.0616 (0.0686)
Constant	−3.399*** (0.151)	−3.399*** (0.0880)	−3.581*** (0.332)	−3.435*** (0.285)	−3.746*** (0.348)	−3.446*** (0.286)
Year effects	No	No	Yes	Yes	Yes	Yes
Clustering	Country	Country-group	Country	Country-group	Country	Country-group
Observations	5935	5935	5935	5935	5935	5935

Clustered standard errors in parentheses: $^{+}p < 0.10$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$.

We estimate a series of additional models that employ alternative sets of control variables and alternative measures for discrimination. The Supplementary Online Appendix includes detailed regression tables. For instance, we additionally control for religious polarization and ethnic fractionalization, the dominance of a major religion, and an overlap between ethnic, regional or social cleavages and religious identity.[17] While some of these additional controls exert independent effects on group grievances (e.g. the overlap variables), none

Table 3. Determinants of conflict involvement

	(1)	(2)	(3)	(4)	(5)	(6)
	Logit	Logit	Logit	Logit	OLS, FE	OLS, group-FE
Grievances (lagged)	0.100	0.100	−0.00837	−0.00837	−0.00294	−0.0112*
	(0.360)	(0.366)	(0.356)	(0.333)	(0.00531)	(0.00435)
Minority population	0.0139	0.0139	0.0107	0.0107	0.000310*	0
	(0.00849)	(0.0114)	(0.00936)	(0.0115)	(0.000143)	(.)
Log of population	−0.0685	−0.0685	0.0225	0.0225	0.0761	0.192**
	(0.319)	(0.242)	(0.336)	(0.254)	(0.0953)	(0.0729)
Log GDP per capita	−1.056*	−1.056**	−0.946[+]	−0.946*	0.0286	0.0170
	(0.488)	(0.352)	(0.499)	(0.395)	(0.0232)	(0.0166)
Polity 2 score	−0.0385	−0.0385[+]	−0.0299	−0.0299	0.000973	0.00129*
	(0.0304)	(0.0229)	(0.0295)	(0.0230)	(0.000744)	(0.000620)
Regime durability	−0.0381	−0.0381	−0.0406	−0.0406	0.000133	0.000118
	(0.0290)	(0.0259)	(0.0315)	(0.0282)	(0.000297)	(0.000243)
Rough terrain	−0.0950	−0.0950	−0.0525	−0.0525	0	0
	(0.171)	(0.129)	(0.176)	(0.135)	(.)	(.)
Religion type	No	No	Omitted	Omitted	No	No
Constant	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted
No event polynomial	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted
Year effects	No	No	No	No	Yes	Yes
Clustering	Country	Country-group	Country	Country-group	Country	Country-group
Observations	6554	6554	4576	4576	6554	6554

Clustered standard errors in parentheses: $^{+}p < 0.10$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$.

diminish the role of discrimination. We also disaggregate the additive discrimination index into its individual components and find that a broad set of forms of discrimination drive the general finding. For example, discrimination over the building or access to places of worship, formal religious organization, the publication of religious materials and proselytization all have statistically significant and positive effects on grievances. Last, we test whether some of the additional control variables such as ethnic overlap, fractionalization or religious dominance condition the effect of discrimination on grievances. Throughout the models we are not able to find evidence of clear interaction effects. In summary, across this large set of alternative models, we find a statistically significant and direct association between discrimination and group grievances.

We now turn to our argument's second component, which is that religious groups that experience grievances are more likely to engage in violent conflict. The main findings are shown in Tables 3 and 4. According to our statistical analysis, grievances are not related to intergroup violence in any statistically robust and significant way. Throughout models 1–5 of Table 3 the lagged version of *grievances* remains insignificant. Re-estimating the main models for the effect of grievances on violence using longer lag structures does not change this finding.[18] Although in model 6 the coefficient is significant below the 5% level, the sign is negative. Of our control variables, only the *log GDP per capita* attains statistical significance at standard levels in some models. Table 4 presents the isolated effect of grievances

Table 4. Determinants of conflict involvement (excluding control variables)

	(1)	(2)	(3)	(4)	(5)	(6)
	Logit	Logit	Logit	Logit	OLS, FE	OLS, Group-FE
Grievances (lagged)	−0.124 (0.430)	−0.124 (0.414)	−0.169 (0.450)	−0.169 (0.442)	−0.00145 (0.00543)	−0.00881[+] (0.00487)
Constant	−4.549*** (0.325)	−4.549*** (0.208)	−4.611*** (0.575)	−4.611*** (0.566)	0.0171[+] (0.0101)	0.0206*** (0.00582)
Religion type	No	No	Omitted	Omitted	No	No
Year effects	No	No	No	No	Yes	Yes
Clustering	Country	Country-group	Country	Country-group	Country	Country-group
Observations	6554	6554	4576	4576	6554	6554

Clustered standard errors in parentheses: $^+p < 0.10$; $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$.

experienced by a religious group and intergroup violence. The findings do not change qualitatively in comparison to the multivariate models reported in Table 3.

When we estimate the models of Table 3 including *discrimination* and *grievances* simultaneously or alone, our composite measurement of government discrimination does not yield confirmative results either (see Supplementary Online Appendix).[19] Although *discrimination* reaches statistical significance in some models and the coefficients point to a positive relationship with conflict involvement, the results are not sufficiently robust when we include year effects.

Additional robustness checks, such as alternative model specifications and different conceptualizations and operationalizations of our main variables, do not alter the data's lack of support for our second hypothesis. The Supplementary Online Appendix provides detailed regression results.

Among other things, we have retested our models, drawing on further measurements of religious conflict. We have extended our definition to include not just (a) armed conflict but also any involvement in (b) religious non-state conflict, whether there was armed conflict (or non-state conflict) in which religious ideas/incompatibilities formed an incompatibility that could be attributed to the religious group in question, or whether the religious group has been involved in an armed conflict or non-state violent conflict with religious ideas/ideologies as incompatibilities. We have also looked at involvement in any conflict (characterized by either different religious affiliations or theological incompatibilities). Regardless of our conceptualization and measurement of conflict involvement, neither *grievance* nor *discrimination* provides statistically robust support for the second hypothesis (H2).

For all our measures of violence, we have tested the effects of different measurements of grievances and the interaction terms of *grievance* and *discrimination* with other variables. The latter attempt did not yield any better results when testing for conditional effects by regime type or group size.

We have also distinguished between grievances related to religious practice or to political, economic and other secular matters.[20] Grievances in terms of religious practice include, for instance, complaints about not being allowed to build a place of worship or engage in

proselytization (and the Rastafaris, mentioned in note 10, not being allowed to smoke marijuana). Grievances over political, economic, and other matters refer to the deprivation of members of religious groups outside the realm of religion, such as having fewer employment opportunities or being underrepresented in government positions. This distinction may also proxy differences in the intensity of grievances, as the latter form might be easier to politicize. The results do not point to any relationship (see Supplementary Online Appendix Tables A-8 to A-14).

We have also employed alternative grievance variables, including information on whether autonomy grievances have been expressed by the religious minority group in the past (*autonomy grievances*) and whether the respective group has lost autonomy (*lost autonomy*). The results hint at a positive relationship between grievances about autonomy issues and a minority group's involvement in conflict—regardless of whether or not the minority group has felt discriminated against or has been subjected to religious discrimination from the government. As the Supplementary Online Appendix (Tables A-8 to A-14) shows, however, the results are not completely robust for all measures of violence.

Discussion

Looking at the causal chain, we can summarize that the link between discrimination and grievances can be substantiated through our empirical analysis (H1). However, the second part of the causal chain is broken. We do not find any meaningful link between grievances and conflict involvement. The respective hypothesis must hence be rejected (H2), and as a result, the posited overarching causal chain fails. Despite conforming to intuition, apparently, discrimination and grievances are not the primary drivers of conflict involvement for religious groups.

If we look at actual groups, it becomes clear why the causal chain does not function: of more than 400 groups, only 12 (Christians in Azerbaijan, India, Indonesia and Sudan; Buddhists in Bangladesh; Muslims in Ethiopia, India, Côte d'Ivoire, Israel, the Philippines and Uganda; and Sikhs in India) conform to the complete causal chain in one year or for the case of armed conflict. Ten groups that were both discriminated against and aggrieved were additionally involved in non-state armed conflict; of these, however, four were also involved in armed conflict (with the state). A few additional groups, such as Christians and Muslims in Nigeria and Copts (Christians) in Egypt, were involved in other conflicts, or these conflicts surpassed the threshold of 25 deaths not in the same year after the end of the period under investigation. In sum, only approximately 20 of 433 groups conform in one or more years to the positive version of the causal chain. In contrast, we can identify almost 150 groups that were discriminated against and held grievances in the same year. Although we assume that violence should break out in the same year, we find that significantly more than 80% of aggrieved groups have not chosen to engage in violence. All of the evidence presented in this paper clearly supports the idea that discrimination does not result in religious groups' engagement in conflict.

It is of course difficult to explain a non-finding. However, when discrimination and grievances do not explain the conflict involvement of religious groups, what does?

One idea is to question the quality of our data. Although our data cover a wide range of different forms of discrimination and conflict involvement, one could argue that at least our grievance data is binary and thus not very fine-grained. Although we have distinguished

Table 5. Heavily discriminated religious minorities holding grievances and conflict involvement, 1990–2008

Country	Minority	Percentage of population	Conflict involvement (years)
China	Buddhists	8.4%	None
China	Chinese religions	28%	None
China	Christians	7.2%	None
China	Muslims	1.5%	Yes (2004)
Iran	Bahai	0.5%	None
Kuwait	Christians	4%	None
Maldives	Buddhists	0.7%	None
Maldives	Christians	0.1%	None
Pakistan	Ahmadi	0.3%	Yes (1990–2008)
Saudi Arabia	Buddhists	0.25%	None
Saudi Arabia	Christians	4%	None
Saudi Arabia	Hindus	1%	None
Saudi Arabia	Shiite Muslims	4%	None
Sudan	Animists	20%	Yes (1990–2008)
Sudan	Christians	10%	Yes (1990–2008)
Turkmenistan	Protestants	0.1%	None
Turkmenistan	Other Christians	1.7%	None
Uzbekistan	Christians	1.7%	Yes (1991, 1999–2000, 2004)
Vietnam	Protestants	1.5%	None

Notes: Authors' compilation. The table features countries with a discrimination index of at least 20 according to Fox; minority groups also have to hold grievances at least in one year; conflict involvement indicates the year after being discriminated against and holding grievances. Correlation between percentage of population and years of conflict involvement, 0.29; without Chinese minorities, 0.66.

between religious-practice-oriented and political and economic grievances, we have not directly captured the intensity of grievances. We could also add that discrimination against religious groups refers to religious practice but not so much to political and economic disadvantages. Also, we have relatively few good data for control variables at the group level. All this will be a challenge for future research.

We can alternatively base our explanation of the non-finding on the critical cases for which the expected result should be most likely but which defy our expectations: those countries in which groups are heavily discriminated against and hold grievances but have never engaged in violence. Table 5 shows altogether 19 groups in 10 countries that are heavily discriminated against, as indicated by a discrimination index value of at least 20 (on a scale from 0 to 38, see above). Five of the 19 groups have been involved in violent collective action. This is somewhat higher than what we have found for all groups; nevertheless, a huge majority of heavily discriminated groups who also hold grievances have remained peaceful.

One obvious solution could be the democratic character of political systems, which allows peaceful protest and thus enables groups to express dissent without resorting to violence. This is not the case. The countries in which discriminated and aggrieved groups do not take up arms are either Muslim authoritarian (Iran, Kuwait, Saudi Arabia, Turkmenistan) or Communist authoritarian (China, Vietnam). Generally, autocracy rather than democracy seems to reduce conflict in these 10 countries—which is not surprising, as heavy discrimination is generally predominantly found in autocratic regimes. Yet we do not find more convincing evidence of a substantial role for democracy in reducing conflict risks in the statistical

analysis either (see Table 3). Apparently, successful repression limits the opportunity to rebel.

Another finding also supports a causal story that focusses on opportunity. When we look at the discriminated and aggrieved minorities in Table 5, we find that many of them are fairly small. Eleven of the 14 peaceful minorities constitute less than 5% of the respective country's population, while two larger groups in Sudan were both part of an armed conflict. The relationship between size and conflict is far from being perfect and stands at 0.29. When we exclude the Chinese minorities—who really do not fit the relationship—the relationship stands at 0.66. The statistical analysis for the whole sample at least partly corroborates this finding. Involvement in interreligious and theological non-state conflicts in particular seems to be driven by the minorities' relative size (see Supplementary Online Appendix, especially Tables A-9 and A-10). For such conflicts, and also partly for armed conflict with theological incompatibilities (see Supplementary Online Appendix, A-12), we find fairly robust evidence that minority group size (as a percentage of the whole population) is a good predictor of conflict involvement.

One may wonder why minority size plays a bigger role in non-state conflicts than in armed conflicts (involving the state). Perhaps it is the bigger groups that enter into conflict with other groups, while the opportunity for rebellion in state-based armed conflict is more dependent on state capacity. If we accept GDP per capita as a proxy for state capacity (see e.g. Fearon and Laitin 2003), Table 3 as well as the robustness checks in the Supplementary Online Appendix support the idea that greater state capacity reduces the opportunity for conflict involvement. In addition, population size is also a frequently significant factor—and this indicator also proxies opportunity rather than motive. In sum, almost all of our empirical findings point to the conclusion that opportunity seems to count more, and this corroborates the non-finding with regard to grievances.[21] The likelihood of rebellion on the part of religious groups may not stem exclusively from grievances, as our intuition suggests, but simply from the feasibility of rebelling.

Conclusion

It has become conventional wisdom that (relative) deprivation creates grievances and that these grievances in turn lead to intergroup violence. Anecdotal and some systematic evidence suggests that many ethnic and religious groups rebel against the state because of their marginalization. From a theoretical angle, the relationship is straightforward and is likely to unfold in a causal chain that runs from objective discrimination to (subjective) grievances and then to rebellion. We have tested this proposition with unique group-format data on more than 430 religious minorities in the developing world from 1990 to 2008. However, the results of the logistic regression do not indicate that religious discrimination is a major source of violence. While, as expected, religious discrimination indeed increases the likelihood of grievances—although this relationship is far from being deterministic—neither grievances nor discrimination are connected to violence, as a huge number of robustness checks show.

These results differ from those of previous studies that have focused on ethnic conflict and found a link between at least some forms of grievance and conflict (Cederman et al., 2010; Gurr, 1993, 2000; Wimmer et al., 2009; Wucherpfennig et al., 2012). They also differ

from those of studies focusing on ethnoreligious conflict, which have found a complex link between religious grievances and violence (Fox, 2002, 2004; Akbaba and Tydas, 2011).

We have identified three potential explanations for the divergence of our results. First, the "selection bias" critique of previous studies argues that the previous studies cannot be considered fully accurate because they include only a selection of cases. This study includes all relevant religious minorities, which could indicate that there is some validity to this critique. However, we argue that this is unlikely because selection bias, if anything, would have lowered the levels of significance found in previous studies rather than raising them. Accordingly, we consider the second two explanations listed below to be more likely.

Second, this study focuses on religious minorities in Asia, Latin America, the Middle East, and sub-Saharan Africa. As this is a different set of minorities than those used in previous studies based both on minority type and geographic region, it is possible that conflict dynamics are different across different types of minorities in different locations. Third, the previous studies found that the grievances–conflict link was only present for some types of grievances. This indicates that it is possible that religious grievances are simply among those that are not likely to cause conflict. This is consistent with Gurr's (1993, 2000) finding that culturally based grievances are poor predictors of conflict but inconsistent with Fox's (2002, 2004) results on ethnoreligious conflict.

There remain a number of related challenges for future research. First, it seems indispensable to further improve the database with regard to control variables at the group level as well as, possibly, the conceptualization of discrimination and grievances. Discrimination has been measured in terms of religious practice only; it might be more important to know to what extent the members of religious groups are excluded from political power and wealth. Regarding grievances, it can be argued that their intensity may vary greatly and that more fine-grained measurement has to take this fact into account. We should also continue to engage in a theory-guided search for conditional effects that have remained undetected thus far.

Beyond these more technical challenges, however, on the basis of our results, we can conclude that the debate has to question the relationship between deprivation, grievances and conflict involvement. Anecdotal evidence and the more robust results from our regressions also imply that opportunity—that is, minorities' relative population size and state capacity—plays a much bigger role than any theory on grievances expects. Further research should strive to uncover the exact causal mechanisms and test these results with a more fine-grained database.

Notes

1. Replication data, do-files and the Supplementary Online Appendix for this article are available at: http://www.giga-hamburg.de/data/does-discrimination-breed-grievances.

2. For other early versions of the theory see Davies (1962), Feierabend and Feierabend (1973) and Olson (1963). For a review of this literature see Rule (1988).

3. In fact, this expansion of Gurr's arguments (which previously applied to economic, cultural, political, and autonomy issues) to apply to religious discrimination and grievances was originally presented in Fox's dissertation (1997), which Gurr supervised.

4. Unlike the political and cultural variables, the MAR's economic variables focus primarily on differentials between the minority and majority group. As religion is most similar to culture among Gurr's list of variables, we argue that using a variable structure similar to that of culture is the most appropriate approach.

5. If these grievances do not exist, it will be easy for leaders to construct them given actual discrimination.

6. Gurr (1993) makes a similar argument with regard to ethnic minorities.

7. Similarly to the RASM data, our dataset also includes all Muslim or Christian minorities in Christian or Muslim countries, respectively, regardless of whether or not the minority population reaches the 0.25% threshold.

8. Religious Freedom Reports (1998–2010); Human Rights Reports (1993–2010); Economist Intelligence Unit Country Reports (1990–2010).

9. We control in some additional models for the precision code, but there are no substantive differences to our main results. Results are available on request.

10. There are more curious cases. A number of Rastafari groups in the Caribbean, for example, complain that their consumption of cannabis is not recognized as a religious practice.

11. In our robustness checks we use involvement in non-state conflict and other alternative definitions.

12. For a full listing of all 29 variables, a reliability analysis, and a more complete description of sources and coding procedures see Fox (2011) or the Religion and State project webpage at www.religionandstate.org

13. The scale is as follows: 0 = not significantly restricted; 1 = slightly restricted; 2 = significantly restricted. Using limitations on places of worship as an example, a slight restriction might be that a minority can build places of worship in some places but overall most who wish to can find a place of worship to attend, or that there are difficulties in building places of worship but it is usually possible to do so. A significant restriction would be a ban on building places of worship that impacts a large proportion of the religious minority.

14. Fox (2011) describes how this variable evolved from Gurr's (1993; 2000) discrimination variables. It began as an eight-component variable for use with the MAR dataset designed to measure religious discrimination using the same structure as Gurr's political and cultural discrimination variables. It was then transferred to the RAS dataset, where the number of items was expanded to the current number. However, the basic structure of listing restrictions placed on minority activities and institutions then combining them into a single index remains intact. Thus, this variable is particularly appropriate for testing Gurr's model.

15. We use Polity IV's revised combined polity score (i.e. POLITY2) in order to include cases of "interregnum" and "transition" into the analysis, which are treated as −77 and −88 in the original POLITY score. In the POLITY2 score these values are converted to conventional polity scores between −10 and 10. For details on the conversion procedure refer to the Polity 4 Manual (Marshall et al., 2014). Only periods of "foreign interruption" (i.e. −66) are converted to missing values in the POLITY2 score and thus excluded from our analysis.

16. Eventually a full mediation analysis might be desirable. Standard structural equation models, though, cannot recover causal effects, even under strong exogeneity assumptions (Imai et al.,

2011). Hence, our estimates from the separate equations should be regarded as an initial approximation of the relationship between discrimination, grievances and conflict.

17. See Basedau et al. (2014) for a discussion of these overlap variables.

18. Allowing the effect of grievances to materialize over longer periods of time by including a 2, 3 or 5 year lag still yields insignificant results (see Tables A-3 to A-5 in the Supplementary Online Appendix). The null finding also remains valid when we test for the effect of sequences of grievance by including the cumulative sum of *grievances* over years in our models (see Table A-6 in the Supplementary Online Appendix).

19. For the violence models we largely estimate standard logit and OLS models with fixed effects, since many of the random or correlated random effects models have non-convergence problems. The fixed effects models serve the same purpose as the correlated random effects models—that is, they control for unobserved, time-invariant factors at the country or country-group level.

20. For this distinction, we used the sources of our original RCDC coding. We recorded all relevant parts of text in code sheets for single countries (e.g. Indonesia). On this basis, it was possible to determine whether the grievances referred to deprivation of religious practice or secular discrimination in economic, political, or other secular terms. The two forms of grievances were distributed almost evenly across the cases. We identified 1322 group-years with grievances related to religious practice and 1227 with "secular" grievances about the economic or political deprivation of group members. In 835 group-years, the groups complained about both forms of discrimination.

21. It also fits nicely with the results showing that the minorities' relative population share—as a chief variable proxying opportunity—is not important as a determinant of grievances (H1) but plays a role in conflict involvement (H2).

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