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Indigenous Identity, Natural Resources, and Contentious Politics in Bolivia: A Disaggregated Conflict Analysis, 2000- 2011

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Abstract

How do natural resources and ethnic identity interact to incite or to mitigate social conflict? This article argues that high-value natural resources can act as an important catalyst for the politicization of ethnic, specifically indigenous identity, and contribute to social conflict as they limit the malleability of identity frames and raise the stakes of confrontations. We test this argument using unique sub-national data from Bolivian provinces. Drawing on Bolivian newspaper reports, we code conflict events for all of the 112 provinces from 2000 to 2011. We join this conflict data with information on local ethnic composition from the census, the political representation of ethnic groups at the national level, as well as geo-spatial information on gas deposits. Using time-series cross-sectional count models, we show a significant conflict-promoting effect of the share of indigenous people in provinces with gas reserves, but not without.

Keywords

Contentious Politics, Natural Resources, Indigenous Politics

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Introduction

What role does ethnicity play in contentious politics? A considerable literature has dealt with the importance of ethnic identity for the mobilization of social movements, protests, and other forms of contentious collective action. In the context of Latin America, indigenous identities have played an especially important role in contemporary political and social conflicts.¹ It is less clear and highly contested, however, under which exact conditions identity politics contribute to conflict and which specific aspect of ethnic or indigenous identity matters most.

Ethnicity potentially promotes (armed) conflict through various causal mechanisms. Mobilizing on (perceived) relative deprivation of (Cederman, Weidmann, & Gleditsch, 2011; Gurr, 1970, 2000) or horizontal inequalities between ethnic groups (Østby, 2008) can facilitate collective action. Moreover, group leaders may instrumentalize ethnic identities for their own personal interests (Blimes, 2006; Østby, 2008; Wilkinson, 2004). Some authors have focused on demographic constellations of ethnic groups (Fearon & Laitin, 2003; Montalvo & Reynal-Querol, 2005), or their political exclusion at the national level (Cederman, Wimmer, & Min, 2010). Other authors have used social movement theory to place an emphasis on framing processes for constructing contentious collective ethnic identity (McAdam, McCarthy, & Meyer, 1996) or have, more recently, combined constructivist approaches with the analysis of political opportunity structures, enabling collective ethnic action (McAdam, Tarrow, & Tilly, 2001).

This article aims to shed additional light on the role of group identities in social conflict by identifying more precisely the conditions under which ethnicity, specifically indigenous identity, leads to increased mobilization and conflict. To do so, we connect the literature on social conflict to current research on natural resource politics—a major theme in the wider armed conflict literature. We argue that the mobilization of indigenous identity is facilitated by the presence of high-value natural resources, which increase the “fixedness” of ethnicity as an identity category (Chandra, 2006) and raise the stakes of the underlying conflict. Natural resource exploitation acts as a catalyst to activate frames of territorialized indigenous identities and therefore enables the implementation of disruptive contentious acts. Natural resources thus constitute an important contextual factor that affects whether indigenous identity becomes politicized and thus a major determinant of social conflict.

We test our argument in the context of Bolivian politics, a highly interesting case for this purpose, as since the beginning of the 2000s, the ethnically heterogeneous country experienced substantially growing internal conflicts. While the escalating protests in 2003 were commonly labeled as a “gas war,”

the subsequent conflicts are often regarded as ethnically induced (Crabtree & Whitehead, 2008). Due to the lack of comprehensive empirical data on local conflicts in Bolivia, the interaction of natural resource exploitation, ethnicity, and conflict dynamics has so far not been analyzed in a quantitative, spatially disaggregated way.

To fill this research gap, we empirically analyze contentious politics in Bolivia using original sub-national data from Bolivian provinces. Based on detailed Bolivian newspaper records, we create a new comprehensive data set of social conflict events for each of Bolivia's 112 provinces from 2000 to 2011. We complement our event data with additional information on the ethnic/indigenous composition of the local population from the Bolivian census, allowing us to create detailed measures of indigenous identity that capture important dimensions of the concept. Focusing our analysis on Bolivia's most important export commodity—gas—which accounts for 46% of the total national exports as of 2012 (UN Comtrade), we add geo-spatial information on major gas fields, as well as a host of further covariates from various sources.

Using time-series cross-sectional count models, we document that the population share of indigenous people has no statistically significant effect on social conflict for provinces without gas resources. We do find, however, a positive and statistically significant effect of the indigenous population share on social conflict for provinces with gas. These findings are confirmed in a series of additional robustness checks. Consistent with our theoretical expectations, the combination of high-value natural resource extraction with a local potential for indigenous mobilization is an important driver for social conflict in Bolivian provinces.

This article makes several valuable contributions to the existing literature. First, our argument adds to the broader research literature on social conflict by highlighting the important catalytic effect of natural resources for indigenous mobilization. By doing so, we also identify relevant points of connection between parallel research programs on armed conflict and contentious politics, which have been neglected so far. Similarly, most research on the link between natural resources and conflict narrowly focuses on armed conflict or civil war, largely ignoring the role of non-violent or low-intensity violent resistance against the state. Second, our empirical analysis substantiates our conditional argument using novel quantitative and disaggregated data, which has not been the norm in studies of contentious politics. Given the strategic importance of non-renewable natural resource exploitation and indigenous rights movements across the globe—and especially in low-income countries—our findings not only fill an important research gap, but may also be of practical relevance for policy advice. Third, our article also

makes a crucial contribution to the specific discourse on contentious politics in Bolivia, providing, for the first time, a comprehensive quantitative overview on the spatial distribution of conflict events, allowing us to put existing arguments in the literature on Bolivia into a broader context.

Ethnicity, Natural Resources, and Contentious Politics

A large body of literature has dealt with the importance of ethnic identity for mobilization of social movements, protests, and violent contentious politics. This research does not conclusively demonstrate under which specific conditions ethnicity leads to social conflict.

Without intending to capture all aspects of the broad discussion on ethnicity and contention, the arguments of the central theoretical approaches can be summarized as follows: Instrumentalist approaches stress the importance of social movement leaders, who use ethnic identities to compete for economic or political power and to overcome the collective action problem (Brass, 1991; Melucci, 1996; for an overview, see also Barker, Johnson, & Lavalette, 2001).

The political opportunity approach, by contrast, shifts its focus to the influence of (changing) political structures that enable or inhibit ethnic mobilization and conflict. Thus, several studies have highlighted the importance of specific institutional and legal arrangements or, more specifically, studied the impact of ethnic parties on contentious politics (Tarrow, 1994; Wilkinson, 2004).

Drawing on constructivist perspectives, social movement approaches have also emphasized the relevance of framing processes in the sense of “symbolic and discursive dimensions of [ethnic] mobilization” (Vermeersch, 2011, p. 18; see for example, McAdam et al., 1996). Different interpretations of cultural and/or ideological symbols and their—more or less successful—adaptation to specific political and social contexts can be used to legitimize collective contentious action. More recent social movement studies often combine political opportunity approaches with the analysis of framing processes, arguing that the perception of opportunities can change. Only when a certain political or social context is perceived or interpreted as “opportunity,” can it actually be used for purposes of mobilization (Goodwin & Jasper, 2003).

Mostly focusing on violent conflict, the “grievance” school finally highlights the importance of (perceived) political inequalities or exclusion that coincide with ethnic cleavages, and thus may facilitate mobilization for conflict (Esteban, Mayoral, & Ray, 2012; Wimmer, Cederman, & Min, 2009).

For example, using a new comprehensive data set on *Ethnic Power Relations* (EPR), Wimmer et al. (2009) show in cross-country analyses that armed conflict is more likely when large sections of the population are excluded from central state power on the basis of their ethnic identity. Considering the impact of economic grievances of ethnic groups, empirical results have shown that relative economic deprivation may also explain ethnic mobilization for violence (see, for example, Drury, 1994; Østby, 2008).

All these studies focus on the importance of ethnic identity and the associated mobilization potential for social conflict. They all implicitly or explicitly highlight the importance of contextual factors that enable mobilization based on ethnic identity. Although various factors can be important, for example, the political exclusion of identity groups, so far only few analyses have systematically studied the role of natural resource exploitation as such a contextual factor for contentious ethnic politics.

Meanwhile, there exists a related substantial body of empirical research on the impact of natural resources on the dynamics of civil war and violent conflicts (e.g., Humphreys, 2005; Le Billon, 2001; Ross, 2004). More recent research investigates the influence of intervening contextual factors for the relationship between natural resources and armed conflict—or its absence (see, for example, Basedau & Lay, 2009; Fjelde, 2009; Le Billon, 2012; Ross, 2012). Explicit quantitative studies on the interaction of natural resources with different dimensions of ethnicity are still rare, but the few existing examples suggest a potential for useful, novel insights. For example, a study of Sorens (2011) concludes that the geographical overlap of ethnic minority groups and oil production increases the probability of secessionist conflict. Koos and Basedau (2012) also provide evidence for increased conflict risk for African localities that combine uranium extraction with settlements of politically excluded groups. However, Basedau and Pierskalla (2014) find that this result does not extend to oil extraction in Africa.

In contrast, natural resources have, until recently, hardly been analyzed as causes of contentious politics in social movement research mainly dealing with low or non-violent contention.² Only lately have authors examined, for example, the specific impact of large infrastructure projects, such as liquefied natural gas terminals (Boudet & Ortolano, 2010; McAdam et al., 2010), but without comprehensively considering the interactive impact of ethnic identities.

Conflict Studies on Bolivia

The largely qualitative literature on contentious collective action in Bolivia and the wider Latin American region has to some extent engaged the issues

of ethnic and indigenous identity and natural resource exploitation for the formation of social conflicts. Since the 2000s, this literature has generally developed a strong focus on social—particularly indigenous—movements and parties (see Madrid, 2012; Postero & Zamosc, 2004; Schorr, 2012; Van Cott, 2003, 2005; Yashar, 2005). These analyses mainly aim to explain the historical increase of indigenous movements, highlighting the explanatory factor of political opportunity structures, particularly of decentralization, the decline of the traditional left, and increasingly relevant global indigenous rights networks (van Cott, 2005, 2006; Yashar, 2005).

By focusing more precisely on contentious collective action, some sub-national conflict analyses can be found for specific regions within Bolivia. Bebbington and Bebbington (2010), studying conflict dynamics in the gas-producing department of Tarija in 2008, argue that the central causes of conflict have been (perceived) local grievances in the context of (plans for) changes in gas revenue distribution, and the successful mobilization of regional identities. Eaton (2007) studies the regional autonomy movement and related conflicts in the department of Santa Cruz and concludes that these conflicts can be traced back to grievances of the economic elite, and the disappearance of national political parties representing the regional interests of the local elite.

Moreover, several micro-level analyses have qualitatively studied the broader impact of gas production on local indigenous communities (Bebbington, 2012; Hinojosa, 2012; Perreault, 2008).

A recently published study explicitly aims to analyze the impact of ethnic cleavages and natural resources (viz., gas production) on the overall conflict dynamics in Bolivia: Barndt (2012) analyzes the causes of two episodes of a national rise of violent confrontations and finds that the emergence of these violent confrontations cannot be traced back either to resource dependence or to ethnicity, but is related to sector-specific income shocks caused by government policies which “threatened to undercut the livelihood of a well-organized sector” (Barndt, 2012, pp. 19-20). Partially contradicting, Evia, Laserna, and Skaperdas (2008) suggest that the rise of conflict levels during the last decade, and especially since the government of Evo Morales, can be traced back to decreasing state capacity in the context of increased resource dependence and rentier-state mechanisms (see also Laserna, 2010).

Based on novel conflict data, gathered from extensive newspaper and radio review since the end of 2009, a publication of the Fundación UNIR (2012) provides a highly disaggregated—though mainly descriptive—conflict analysis. Central findings are first a high geographical concentration of conflicts in the major cities (UNIR, 2012). Moreover, categorizing the conflicts according to different demands of the principal groups of actors, the

study underlines “economic demands” as most important claim (see UNIR, 2012, p. 112). “Natural resources and environment” range at seventh place but they are classified as increasingly important matters of conflict (UNIR, 2012, p. 49).³

Overall, there exists some preliminary evidence that ethnicity or ethnic mobilization in interaction with natural resources, especially gas, might be an important cause of social conflicts in Bolivia. This evidence is contested by other studies, however. Due to the lack of more comprehensive conflict data, this interplay has so far not been examined in a more structured way. There only exist studies of, for example, one specific sub-region of Bolivia or of one particular type of conflict—without a reference to the overall conflict dynamics within the country, and rather focusing on situational causes of conflict dynamics.

Natural Resources as Catalyst for Indigenous Mobilization

Building on some of the qualitative studies on Bolivia, and on more recent quantitative studies on the interaction of natural resources with different dimensions of ethnicity (Koos & Basedau, 2012; Sorens, 2011), we argue that neither indigenous identity frames alone, nor natural resource exploitation can sufficiently explain the patterns of contentious politics. To develop a better understanding of when indigenous identity leads to more social conflict, we have to specify more precisely how resource extraction interacts with identity politics.

Research on ethnic identity suggests that shared ethnicity can facilitate collective action of groups because of three basic causal mechanisms, which, following the classification of Habyarimana, Humphreys, Posner, and Weinstein (2007) can be defined as preferences, technology, and strategy selection mechanisms. Thus, members of one ethnic group might share similar preferences over political outcomes and values, or simply express higher degrees of altruism toward co-ethnics. Technology mechanisms describe the ability to overcome collective action problems via improving in-group communication through shared culture, language, or modes of interaction (Deutsch, 1966). Moreover, co-ethnics might also be easier to identify in ones’ social networks and hence better suited for organizing collective activities. Last, strategy selection, substantiated by the social sanctioning mechanism, assumes that homogeneity within one ethnic group produces shared norms and institutions of cooperation, as well as sanctioning of non-contributors (Habyarimana et al., 2007).

The mere existence of ethnic and indigenous identities is not a strong enough reason to expect an increase in contentious politics. We have to determine why and under which conditions ethnicity emerges as a powerful vehicle for contentious politics.

Chandra (2006) points out that one of the core characteristics that distinguish ethnic identity from other identity frames is “constrained change” (p. 414), which means that ethnic identity is malleable, but less so than many other available identity frames. This semi-malleability of ethnic identity can be illustrated quite well in several Latin American countries where substantial parts of the population consider themselves to be indigenous but—depending on the context—that identity might only be of subordinated relevance in comparison with other, partly crosscutting group identities, such as class structures or sub-regional identities (see Canessa, 2007; Cleary, 2000).⁴ Chandra (2006) further points out that many theories that link ethnic identities to conflict behavior, like the security dilemma in multiethnic societies (Posen, 1993) or amplified emotional responses in between-group conflicts (Petersen, 2002), fail to convince as such, because they rely on the assumption of fixed group membership, instead of constrained change.

Without fixedness of identity, there is no reason to resort to (violent) contention, as individuals can change their group memberships, thus generating heterogeneity within identity groups. The notion of constrained change suggests though that factors that increase the fixedness of identity, and thus more strongly constrain fluidity of group membership, should amplify the conflict potential of indigenous identity frames. When change is limited, classic in-versus out-group dynamics can arise (Tajfel, 1974) and the mechanisms identified by Habyarimana et al. (2007) can operate to actually facilitate collective action.

The core contribution of our theoretical argument is to contend that natural resources can limit the malleability of indigenous, and more generally ethnic, identity and second, raise the stakes of political confrontations, making it more likely that actors engage in forms of contentious politics.

Why do natural resources, concretely gas extraction, increase the fixedness of indigenous group identity? We argue that local resource exploitation can serve as an important local unifying frame for indigenous mobilization, by strengthening the identity of groups from within, as well as influencing behavior of external actors (energy companies and especially governments) toward indigenous populations. Natural resource extraction adds a stronger territorial component to ethnic and indigenous identity frames. Resource extraction is often concentrated in particular regions of a country. In Bolivia, the main areas of natural gas exploitation are in the departments of Tarija, Santa Cruz, and several provinces in Cochabamba and Chuquisaca. Given

that settlement patterns of ethnic groups usually cluster geographically, natural resource extraction in specific regions often coincides with the presence of a fairly homogeneous population already sharing an ethnic identity frame. The presence of valuable natural resources creates stronger incentives for identification on a combined ethno-territorial basis for several reasons. For one, natural resources, especially oil and gas, often generate large government revenues that can be claimed by the ethno-territorial group. Furthermore, resource extraction often has important environmental consequences that endanger the traditional livelihood of the local population. This is especially true for individuals belonging to indigenous identity groups, as indigenous people still engage more often in agricultural activities, and often emphasize a stronger emotional bond to their “homeland” (Hinojosa, 2008, p. 15).⁵ Natural resource extraction intensifies the link between indigenous identity and territorial location, adding an important additional requirement to group membership, which overall reduces the ability for “constrained change” across identity categories. In the presence of resource extraction, identifying as “Quechua” or “Guarani,” for example, more strongly conflates ideas of a specific ancestry, language ability, cultural practices, but also place of living and an agricultural lifestyle that is negatively affected by environmental changes associated with gas exploitation.

Natural resources, apart from internal incentives to strengthen and fix indigenous identity, also provide external incentives. Conflicts over revenues generated by natural resources or the environmental damage associated with production usually involve outside actors, like the national government or large corporations. Such actors are often perceived as intruders, with no legitimate claim to the spoils of the land. For instance, in the course of our fieldwork in the Bolivian gas-extracting areas, a frame that has commonly been referenced by indigenous representatives during interviews was the contrasting of a “pre-colonial” or “ancestral” local indigenous community on one hand, and an “imposing” government on the other.⁶

This framing of insiders versus outsiders is further strengthened by the desire of the government (or companies) to engage representatives of local indigenous groups. The need to present oneself as a cohesive unit vis-à-vis the outside world, for example to attain special indigenous legal rights, increased revenue allocations, or simply to be represented at the bargaining table, creates additional incentives to delineate indigenous-territorial identities more clearly. The search for identifiable negotiation partners and an overall sense of an outsider-versus-insider dynamic thus fosters a unified identity. For example, once the government takes note of local protests against gas exploitation, the mere fact of political attention or intervention by an outside force can amalgamate and energize the emergence of a cohesive indigenous

identity at the local level in opposition to the perceived outsiders. This will also have implications for the capacity of contentious action beyond the narrow resource extraction issue, but more generally against the government.

Apart from reducing the malleability and salience of indigenous identity, high-value natural resource extraction such as gas also raises the stakes of the ensuing political conflict. Once natural resources are used to activate and strengthen indigenous identities, the associated grievances over revenue distribution and environmental damage limit the available range of acceptable bargaining outcomes. From the perspective of indigenous groups, natural resource extraction becomes associated with economic survival and issues of ownership over traditional homelands. Indigenous claims over territory create issues of indivisibility in the sense that mechanisms of territorial distribution become at least sharply limited (Hassner, 2003; Toft, 2002).⁷

Although issues of indivisibility also may hold true for ethnic and indigenous groups in non-resource rich regions (Toft, 2002), we argue that resource extraction intensifies the probability of contention, as it implies an additional concrete contestation over territory in the context of new intruding actors (state or multinational companies), which otherwise would not have been present.

For these outside actors, large economic rents are at stake. Raising the stakes makes it unlikely both sides can find an acceptable bargain in a negotiated solution and increases the chances of resorting to disruptive and coercive means.

Once contentious actions are carried out in high-value resource producing areas, local indigenous groups enjoy increased bargaining leverage as compared with most non-resource producing area. Given the economic desirability or even the strategic relevance of natural resource extraction, the government is highly susceptible to typical forms of contentious politics, such as blocking of essential roads, hindering direct access to extraction sites or refineries, sabotaging pipelines or disrupting other aspects of the business. This exerts direct pressure on the government, which translates to elevated bargaining power, even concerning issues of contestation rather unrelated to natural resource extraction.

To summarize, we argue that without natural resource exploitation, and especially high-valuable resources, indigenous identity frames might be present, but cannot be easily used to realize their mobilization potential. With natural resources though, indigenous identity becomes an important vehicle for mobilization, and due to the increased “fixedness” and political stakes associated with resource extraction, social conflict becomes more likely. In essence, natural resources can operate as a catalyst for the political mobilization of ethnic identity. We thus follow up on the argument of Aspinall’s study

of violent (separatist) conflict (Aspinall, 2007) that only the entanglement of natural resource exploitation and territorialized ethnic identity provokes contentious collective action. While Aspinall compares three subnational cases of resource-rich provinces in Indonesia and assumes that “wider processes of identity construction” (p. 951) are decisive for the occurrence or absence of violence, this study quantitatively tests the argument that (local) natural resource exploitation serves as a necessary catalyst for local political mobilization of ethnic identities. Thus, the central hypothesis we test in our article is as follows:

Hypothesis 1: Natural resources condition the effect of indigenous identity on social conflict. Without natural resources, there is no clear effect on social conflict events. With natural resources, activated frames of indigenous identity will increase levels of social conflict.

Measuring Contentious Politics in Bolivia, 2000-2011

Since the beginning of the 21st century, the political situation in Bolivia has been characterized by growing internal instability and conflicts. After several waves of protest, two presidents have been forced out of office. In 2006, Evo Morales, a *cocalero* of Aymara origin, became the first indigenous president in the history of the country. The first few years of his government have been characterized by the elaboration and highly contested implementation of a new constitution, which precipitated deep political and economic changes (finally approved by a national referendum in January 2009). This process of political transformation has been accompanied by a high level of internal conflicts, albeit at a rather low level of violence in the sense of fatalities.

As already indicated above, comprehensive data on internal conflicts in Bolivia are rare. The country is barely listed within the *Uppsala Conflict Data Program* (UCDP) conflict data set,⁸ and is not included in the Armed Conflict Location and Events Data set (ACLED). The Bolivian research institute *Centro de Estudios de la Realidad Económica y Social* (CERES) has created a data set that covers conflict information for Bolivia from 1970 up to the present, but does not feature structured sub-national disaggregation, and thus cannot account for explaining differences in the level of conflict and their causes between various regions. The *Fundación UNIR* has published a highly disaggregated conflict data set,⁹ but the data only cover the period since the end of 2009. Due to the lack of conflict information for Bolivia, we created a new data set.

As a data source, we use the detailed narrative “conflict chronologies” of CLACSO, the *Latin American Council of Social Sciences*, a well-known

non-governmental international organization. Through the *Observatorio Social de América Latina* (OSAL) CLACSO draws on a detailed monthly chronology of social conflicts in 19 countries in Latin America and the Caribbean from January 2000 until 2012—based on a scanning of major Bolivian newspapers.¹⁰

A *province conflict event*, the basic entry of the data set, is defined as the occurrence of a (violent or non-violent) collective activity—beyond formal governmental institutions—stating an incompatibility with government parties, employers, or other (identity) groups of society that takes place through a continuous period of time at one specific geographical location, where the crucial level of spatial disaggregation is the province level, the second administrative division in Bolivia.¹¹ We include all forms of social conflict, not just events that were explicitly related to ethnic or indigenous identity or natural resources. We follow this approach for two major reasons. For one, the underlying news reports do not always specify whether specific indigenous groups were involved. Furthermore, at the core of our analysis is a comparison of provinces with and without natural resources, as well as with varying size of the indigenous population. If we were to exclude social conflict events unrelated to natural resources, we would be unable to determine whether the level of contentious politics in resource-rich provinces with a large indigenous population is really higher than in a province without these two characteristics. As laid out in our theoretical argument on the catalytic effect of gas extraction on indigenous contentious politics we do, moreover, assume that this effect has broader long-term implications concerning the probability of contentious action beyond the narrow resource extraction issue. Nevertheless, we do repeat our analysis only including conflict events that were classified as related to natural resources in our robustness checks.

The coded variables in our data (date, location, groups of actors, conflict issues, type, and intensity of conflict, etc.) build on the codebook of SCAD, the *Social Conflict in Africa Database*, and of the UCDP to ensure consistency and compatibility with other prevalent conflict data sets. However, various adjustments and supplements according to the special research interest of the research project at hand have been made.¹²

Descriptive results of our conflict data concerning conflict dynamics can be summarized as follows: The total number of province conflict events for the period of 2000 to 2011 is 3,731. The number of deaths related to these conflict events is rather low. We count 208 deaths for the whole period—almost half of it in the province Murillo, where the capital of Bolivia is located.¹³ The numerical dominance of conflicts in this province also holds true for the absolute number of conflict events, albeit its overall share decreases from 28% to 17% comparing the periods 2000-2005 and

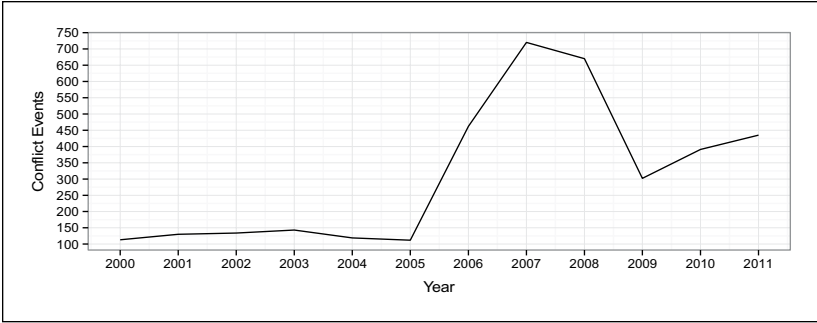


Figure 1. Conflict events in Bolivia.

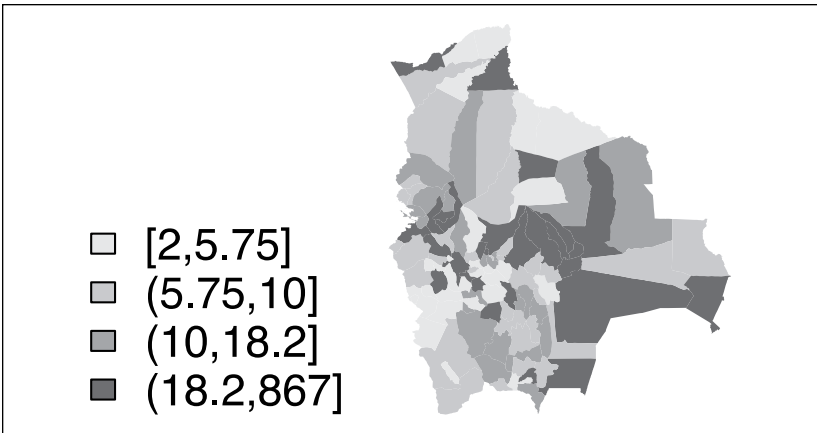


Figure 2. Total conflict events in Bolivian provinces. Darker tones indicate higher quantiles.

2006-2011, respectively. There is, moreover, a marked increase in conflict events since the year 2006 (see Figure 1), which is temporarily interrupted during the years 2009 and 2010.

Apart from the capital province, there are several other provinces with a markedly high number of conflict events. These provinces are Cercado in Cochabamba, Andrés Ibáñez in Santa Cruz, Oropeza in Chuquisaca, Cercado in Oruro—all of them provinces where the capitals of the departments are located—and beyond Quillacollo and Chapare in Cochabamba, Aroma en La Paz, Gran Chaco in Tarija, and Ichilo in Santa Cruz. Figure 2 depicts a map that shows the distribution of the total of conflict events across provinces.

Our new, highly disaggregated conflict data set allows for a more detailed, quantitative analysis, which has a better capacity to detect structural causes of local conflicts in Bolivia.

Methodology and Research Design

To test our hypothesis, we rely on a disaggregated analysis of conflict dynamics in the 112 provinces of Bolivia between 2000 and 2011. Provinces are the second administrative division in Bolivia; the country is composed of 9 departments, which are subdivided into 5 (department of Pando) and up to 20 (department of La Paz) provinces. Disaggregation to the province allows us to trace social conflict dynamics at a much more fine-grained level.

Our period of observation ranges from the beginning of 2000 to the end of 2011; we choose this time frame, as the year 2000 is generally regarded as the beginning of the increase in internal conflicts in Bolivia (Schorr, 2012). Moreover, we simply were not able to study conflict dynamics before the year 2000 as the data collection of CLACSO only starts in 2000.

Concerning social conflict data, we made use of our novel conflict data set, described above. As our main dependent variable, we use a simple count for total conflict events for each province-year. For our robustness checks, we also code the number of events explicitly related to non-renewable resources and the number of injured people.

To measure the presence of natural resources, we restrict ourselves to information on natural gas. Although many aspects of our argument could also apply to other types of natural resources (e.g., mining), we focus on natural gas for three major reasons. First, natural gas is the most important natural resource for Bolivia, with the largest fiscal implications. Gas presents more than 40% of the total national exports. Governmental revenue from the gas sector has risen significantly, especially after the re-nationalization of the hydrocarbon sector in 2006, which increased the government's take of gas revenues substantially. Gas revenues have grown from US\$288 million in 2004 to US\$1.572 billion in 2007 (Weissbrot & Sandoval, 2008). Gas has also played an important role in political conflicts throughout the 2000s according to several qualitative studies summarized in "Conflict Studies on Bolivia" section. Moreover, we have geo-referenced data on the sub-national location of gas reserves, which we can match to our conflict data, whereas the same is not available for mining operations.¹⁴ In contrast to existing legal regulations within the mining sector, substantial parts of the government revenues of the gas sector have for a long time been re-transferred to sub-national political entities of the gas-producing regions (departmental prefectures and recently increasingly municipalities).¹⁵

This type of institutionalized revenue sharing might be considered a factor that additionally increases the fixedness of territorialized indigenous (and non-indigenous) group identities in the gas-producing areas—often with the central government seen as adversary. With regard to the generalizability of our findings, this means that the effect of other resources on indigenous mobilization might be somewhat weaker than with reference to gas extraction. Nevertheless, the impact should principally be the same, as the other mechanisms outlined above still apply to non-gas resources.

Our information on natural gas exploitation is derived from the PETRO-DATA data set (Lujala, Rød, & Thieme, 2007). PETRO-DATA provides geo-spatial information on oil and gas deposits around the world. We match gas fields from PETRO-DATA to Bolivian provinces and create a simple, time-invariant count of gas deposits for each province, ranging from zero gas fields to a maximum of two per province.¹⁶ Although rather coarse, this count captures the main differences between Bolivia's provinces. Ideally, we would like to have exact production figures to be able to differentiate better across time, but these data are unavailable to the public. As an alternative to PETRO-DATA, we also add newer information on the location of gas deposits from the Bolivian Ministry of Hydrocarbons and Energy. As some exploration has taken place in the period of study, we only use this alternative indicator for robustness checks to avoid post-treatment bias.

Data on ethnicity and indigenous identity are taken from the last Bolivian census of the year 2001—according to which roughly 62% of the population self-identified as belonging to an indigenous people. The largest indigenous groups are Quechua and Aymara with 31% and 25%, respectively, of the total population; other indigenous minorities, comprising Chiquitanos (2.2%), Guaraní (1.6%), and Mojeños (0.9%), and further smaller ethnic groups. The census of 2001 aggregates the remaining part of the population under the category of “non-indigenous” without further specification. In contrast to other authors (see Madrid, 2012) we use indigenous self-identification as point of reference, not the use of a certain language, as we think that self-identification catches best the dimension of ethnicity as potential mobilization tool. We are aware of the shortcomings and justifiable criticisms put forward against the ethnic classifications within the Bolivian census (see, for example, Schilling-Vacaflor, 2010; Zuazo, 2006), especially with regard to the simplistic categorization covering up ethnic (sub-)cleavages. Still, the census is the most comprehensive, highly disaggregated data source for ethnicity, which is currently available for Bolivia.

Based on the census, we calculate the share of the indigenous and non-indigenous population for each province, as well as the share of specific indigenous groups (Aymara, Quechua, and Guaraní). Although we do not

believe that the sheer size of indigenous groups directly affects social conflict as such, we use the share of the indigenous, because it proxies fairly well the mobilization potential of indigenous identity (see Cederman et al., 2010, for a similar argument about ethnic group size). A small share of indigenous people makes it unlikely that a unified and territorialized identity emerges at the local level, while also limiting its disruptive potential. A province nearly completely dominated by indigenous people is much more likely to experience a territorial politicization of their identity and furthermore represents a much larger potential for disruptive mobilization.

To be able to distinguish the mobilization potential of indigenous identity from other more general aspects of indigenous identity, we furthermore exploit the census data to construct important control variables. First, based on the ethnic head counts for the major groups identified in the census (Non-indigenous, Aymara, Quechua, Guaraní), we calculate a standard index of ethnic/indigenous fractionalization, as well as a measure of ethnic/indigenous polarization (Esteban & Ray, 1994), that captures the degree to which main groups balance each other.

To measure potential grievances of indigenous groups, we add information from the EPR data set, which contains systematic information on the access to national political power of ethnic groups from 1945 to 2009 (Cederman et al., 2010). Recent work by Cederman et al. has shown that the political exclusion of identity groups is an important determinant of the outbreak of armed conflicts and hence might play a similar role for social conflicts. We believe this to be an especially important control variable, because political exclusion at the national level might confound the relationship between the potential for indigenous mobilization, resource extraction, and social conflict. Based on the indigenous group shares calculated from census data and the national-level status of each group from EPR, we create a variable that measures the share of the local provincial population that is represented at the national level. Due to the election of Evo Morales and the associated change in the cabinet, as well as the varying shares of indigenous groups across provinces, our indicator of political inclusion varies spatially and temporally.

Last, we use information on spoken languages from the census to calculate a measure of “cross-cuttingness” (Selway, 2011). If language is an important alternative identity cleavage (Bormann, Cederman, & Vogt, 2013) that does not perfectly align with self-reported indigenous identity, it might serve as a weakening factor for ethnic mobilization. For each province, we calculate the correlation between self-identified indigenous identity and the ability to speak an indigenous language.

To parse out the effect of indigenous identity and natural resources, we control for a number of additional variables. We include population counts for each province, as more populous provinces are more likely to experience social conflict (see Dixon, 2009). We also add information on literacy rates and an index of socio-economic development based on census data.¹⁸ To capture other aspects of political and geographic opportunity structures, we add information on the extent of the road network (based on GIS files), distance to the capital city, and the share of mountainous terrain.¹⁹ Provinces closer to La Paz, with better road networks and more accessible terrain might be more likely to experience social conflict, because civil society actors have lower costs of organizing collective action. For our robustness checks, we use information on government revenue in each of the provinces. Our measure is based on total government revenue allocations to municipalities, which are nested into provinces. We calculate the total allocation to municipalities in each province-year and normalize by population size. This is not a perfect measure for total government expenditures in each province, because it does not capture allocations to the departmental level, which might be used for differing infrastructure expenditures in distinct provinces. Nonetheless, we believe this proxy reasonably reflects fiscal inequities between Bolivian provinces (remaining variation will partially be controlled for via department fixed effects). Controlling for government revenues might be important because fiscal allocations can be used to buy the acquiescence of minority groups, especially in regions rich in natural resources. We relegate models including this variable to the section on robustness checks, because we only have financial information available for the years 2006 to 2011.²⁰

As our dependent variable is a count of social conflict events in each province-year, we rely on negative binomial count models for our estimations. The linear predictor is a function of covariates in the following way:

$$\eta_{it} = x_{it}\beta + e_i\theta + g_i\gamma + (e_i \times g_i)\delta + year_t + dept_k.$$

The specification includes our measure of indigenous mobilization potential e_i , the count of gas fields g_i , and their interaction ($e_i \times g_i$). Testing our hypothesis will depend on the set of coefficients $[\theta, \gamma, \delta]$. The model also includes control variables x_{it} , year effects and, in some instances, departmental dummies. The year dummies account for uniform time shocks that might affect overall levels of conflicts in Bolivia in specific years. The departmental dummies control for common, time-constant factors shared by provinces within the same department that might correlate with our main independent variables and levels of social conflict.²¹ We cluster standard

errors at the provincial level to account for arbitrary serial correlation and heteroskedasticity.²²

Results and Discussion

Table 1 presents our main results.

Column (1) shows the results for our baseline negative binomial model. For the control variables, we can see that several coefficients are statistically significant below the 5% level and behave in an expected way. Provinces with higher population counts are more likely to experience conflict events. Similarly, higher levels of socio-economic development are associated with more events. This might be due to the empowering nature of access to socio-economic resources, enabling individuals to overcome collective action problems (see McAdam et al., 2010). Provinces with a better road network also have, on average, more events. We find a weakly significant (below the 10% level), negative effect for capital distance.

Moving to our main variables of interest, we have to keep in mind that the substantive interpretation of the constituent and interaction terms is difficult. First, we are dealing with a generalized linear model and need to simulate meaningful quantities of interest. Second, the inclusion of interaction effects implies that we cannot interpret the constituent terms as partial effects. What we can tell from the coefficients in the regression table though is that provinces with a higher share of indigenous groups are neither more nor less likely to experience an increase in social conflict events when gas is absent in the province. The coefficient is negative, but far from statistically significant at standard levels. The constituent term for gas is negative and statistically significant, but fairly meaningless as it only applies to provinces without any indigenous population. The interaction term itself is positive and statistically significant below the 1% level, suggesting that there exists a meaningful difference in the effects of the share of the indigenous population on conflict between provinces with and without gas. To better adjudicate the direction and magnitude of the effects, we simulate the expected number of conflict events as a function of the share of the indigenous population under two scenarios: for a province without any gas and for an identical province with the maximum number of gas fields, that is, two.²³ Figure 3 shows the average effect and shaded in gray the associated 95% confidence intervals.

There is no effect of the share of the indigenous population on conflict events without the presence of gas (light gray). The slope is slightly negative but the 95% confidence intervals are wide. Without gas, indigenous identity seems to play no discernible role for contentious politics in Bolivia. We contrast this with the simulated effects of the indigenous share in a province with

Table 1. Social Conflict in Bolivia.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|------------------------------------|-------------------------|-------------------------|-------------------------|------------------------|-------------------------|-------------------------|
| | NegBin | NegBin | NegBin | NegBin | NegBin | NegBin |
| log(Population) | 0.312** (0.116) | 0.312** (0.119) | 0.368** (0.116) | 0.355** (0.124) | 0.357** (0.124) | 0.403** (0.143) |
| Socio-economic development | 4.238*** (0.791) | 4.265*** (0.788) | 3.912*** (0.773) | 4.162*** (0.820) | 3.581*** (0.701) | 3.437*** (0.685) |
| Literacy | 1.271 (1.119) | 0.989 (1.124) | 0.810 (1.297) | 1.099 (1.197) | 3.707*** (1.126) | 3.187* (1.250) |
| % mountainous | 0.0125 (0.297) | 0.200 (0.315) | -0.0357 (0.341) | -0.134 (0.338) | -0.849† (0.512) | -0.653 (0.500) |
| Capital distance | -0.00138† (0.000724) | -0.00131† (0.000733) | -0.00130† (0.000706) | -0.00118 (0.000720) | -0.00192* (0.000842) | -0.00156† (0.000824) |
| Road density | 0.0125** (0.00410) | 0.0113** (0.00427) | 0.0129** (0.00403) | 0.0127** (0.00422) | 0.0139*** (0.00364) | 0.0120*** (0.00348) |
| Gas | -0.786** (0.246) | -0.743** (0.254) | -0.712** (0.245) | -0.829** (0.263) | -0.683* (0.266) | -0.580* (0.241) |
| % indigenous | -0.290 (0.475) | -0.815 (0.497) | -0.371 (0.493) | 0.0954 (0.495) | -0.403 (0.613) | -0.653 (0.694) |
| Gas × % indigenous | 1.808*** (0.469) | 1.816*** (0.487) | 1.455* (0.568) | 1.593** (0.511) | 1.285** (0.484) | 1.099* (0.524) |
| Government inclusion | | -1.277*** (0.235) | | | | -1.228*** (0.235) |
| Ethnic fractionalization | | | -0.521 (0.549) | | | -0.193 (0.659) |
| Ethnic polarization | | | 0.389 (0.428) | | | 0.306 (0.455) |
| Crosscuttingness | | | | 1.019 (0.683) | | 0.117 (0.650) |
| Constant | -4.962** (1.897) | -4.389* (1.912) | -4.898* (2.030) | -5.800** (1.971) | -6.082** (2.064) | -6.180** (2.220) |
| log(α) | 0.172 (0.127) | 0.228† (0.132) | 0.215 (0.135) | 0.176 (0.124) | 0.422** (0.138) | 0.496** (0.152) |
| Year effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Department effects | No | No | No | No | Yes | Yes |
| Observations | 1,344 | 1,232 | 1,344 | 1,344 | 1,344 | 1,232 |
| Number of clusters | 112 | 112 | 112 | 112 | 112 | 112 |
| Akaike Information Criterion (AIC) | 3890.9 | 3,695.6 | 3,881.9 | 3,884.4 | 3,792.8 | 3,603.9 |

Clustered standard errors in parentheses.

†p < .10. *p < .05. **p < .01. ***p < .001.

gas (dark gray). Now, the effect is clearly positive and statistically significant. Importantly, the confidence regions for the two scenarios do not overlap

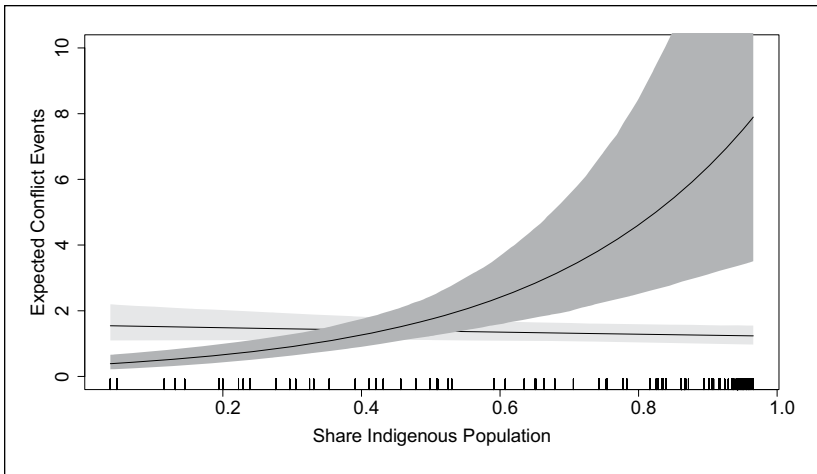


Figure 3. Expected number of conflict events as a function of the share of the indigenous population (95% confidence intervals in gray). Dark gray for provinces with gas, light gray for provinces without gas.

at low and especially high levels of local indigenous group size, providing clear evidence in favor of our conditional hypothesis. The effect is also substantively meaningful: At the 25th percentile of the indigenous share distribution (0.48), the expected event count is around 2, whereas at the 75th percentile (0.94), the expected event count is around 6. As the mean level of events in a province-year is around 2.88, a difference of four events suggests an important increase in contentious politics at the local level.

Models 2 to 6 test the robustness of our finding by successively adding various control variables. The model in column 2 includes our measure of government inclusion of local identity groups. While having an independent negative and statistically significant effect on the level of social conflict—confirming related findings by Cederman et al. (2010)—including it as a control does not affect our main finding. This is noteworthy, as political exclusion at the national level might be an important alternative channel through which indigenous mobilization is facilitated. Importantly, our findings show that the election of Evo Morales as president and the successive inclusion of indigenous representatives at the national level had independent, dampening effects on the level of social conflict across Bolivian provinces, but did not affect our main finding of particularly high conflict levels in provinces that combine natural gas exploitation and a high share of indigenous people.

Adding a measure of ethnic fractionalization or polarization (column 3) equally does not affect our finding, thus underlining that it is not the demographic constellation per se that matters for contentious politics, but rather the general mobilization potential of indigenous identity frames in the presence of resource extraction. Column 5 shows a model that adds our measure of crosscuttingness, again with no effect regarding our hypothesized interaction. Models 5 and 6 add a set of departmental dummies and the full list of additional controls. These dummies control for any remaining time-invariant, unobserved effects at the department level. We still find no clear effect of the share of the indigenous population on social conflict in provinces without gas, but a clear amplification effect for provinces with gas.

Overall, the results suggest that gas plays an important catalytic role for indigenous contentious politics, but does it exert direct effects itself? Although the constituent effect of the gas variable is negative and statistically significant, we cannot directly assess the effects of gas, as no province has an exact zero share of indigenous people. In other words, the positive interaction term has to be considered to some degree when assessing the effects of gas on contentious politics. A simulation of the effects for provinces at the 25th and 75th percentile of the distribution of the indigenous share variable reveals that the effect is largely not distinguishable from zero (see Figure X1 in the online appendix). Only in provinces with a very high share of indigenous people does gas have a statistically significant effect, increasing the expected number of conflict events. This mirrors our main finding.

This result fits in with more recent studies of Basedau and Lay (2009) or Lujala and Rustad (2012), who conclude that natural resources are not consistently conflict promoting—and their impact depends on further context conditions (albeit in contrast to these other studies we analyze low-level conflicts). In our case, it seems that the natural resource issue plays an important conditioning role for contentious politics within Bolivia, without exerting any direct effects on collective action. Although conflicts in resource-rich regions might not dominate, especially when considering the total sum of conflict events in Bolivia, they add an important dimension to the narrative of ethnic mobilization. This interpretation has also been supported by qualitative assessments of researches queried in expert interviews during our field research.²⁴

For further robustness checks, we repeat the estimation of all models including as additional control the total per capita revenue allocations to each province. This reduces the time frame of our analysis to 2006-2011. Adding revenue information to our models also has no effect on our substantive finding. Although higher revenue allocations per capita increase conflict events, we still find in nearly all models clear evidence for the interactive effect

between gas resources and indigenous identity (detailed results shown in Online Appendix, Table X2). The positive effect of revenues per capita might represent the fact that local actors use social conflict to bargain over the distribution of local government resources.

We also utilize alternative information on the location of natural resources. We obtained information from the Bolivian Ministry of Natural Resources on the location of gas reserves. This information is highly correlated with the location of gas deposits recorded in the PETRO-DATA, but includes some additional, newer deposits. Based on this information, we create a simple dummy variable on the presence of gas reserves in a province and repeat our analysis.²⁵ We again find clear evidence for the interaction between the presence of gas deposits and the share of the local indigenous population.

We also repeat our analysis only including conflict events that were classified as related to non-renewable natural resources (in the vast majority of cases meaning gas). Our argument implies that high-value natural resources should activate the *general* potential for social conflict of indigenous groups. Nonetheless, the underlying mechanisms of our argument also imply that we should see a particularly strong increase in resource-related conflict events for provinces that combine gas exploitation with a larger share of the indigenous population. We repeat the estimation of Models 1 to 6 from Table 1 with just resource-related events included in the count and unambiguously confirm our initial findings. Across all six models, we find clear evidence of an interaction effect, with even higher levels of statistical significance. This increase in statistical precision is exactly what we would expect given our theoretical argument (see Online Appendix, Table X4). We also added estimations that use the number of injured people as a dependent variable to further test the implications of our argument. We find that, on average, the injury count is highest in provinces that feature both a high share of indigenous people and gas deposits, followed by provinces that only have the former. Although the two scenarios are not statistically distinguishable at standard levels, the coefficients are in line with our argument, suggesting a more uncompromising position on the side of both conflicting parties (the overlap of confidence intervals might also stem from the more sporadic distribution of the injury counts, see Online Appendix for details).

For the last robustness check, we disaggregate the share of the indigenous population by subgroup. We include the share of Aymara, Quechua, and Guaraní, as well as their respective interactions with the gas variable. Overall, we find the same pattern as in the main analysis. Neither of the constituent terms for the indigenous groups has a statistically significant effect on social conflict in provinces without gas, but we do find positive and statistically significant interaction effects with gas, especially for Quechua and Aymara.

The fact that we find no such pattern for Guaraní might be due to their much smaller group size across Bolivia and not due to a missing conflict-promoting interaction effect, which actually has been illustrated by several qualitative micro-studies (see “Conflict Studies on Bolivia” section).

In summary, we find clear support for our hypothesis. The mobilization potential for indigenous populations can play an important role for contentious politics. Using our detailed provincial-level data, we show that this conflict potential is capitalized on especially in gas-rich regions. These patterns hold even when controlling for a number of conceptually different aspects of ethnic or indigenous identity.

Conclusion

Numerous studies have argued that indigenous identity matters for contentious politics. The difficulty lies with identifying the specific conditions under which it becomes politically salient enough to facilitate or activate social conflict. We argue that one such important contextual factor is natural resources. In the presence of valuable natural resources, usually under the control of the national government, local indigenous identity frames become less malleable, due to the fusing of indigenous and territorial identity. High-value natural resources create stronger incentives for identification on a combined ethno-territorial basis due to several not mutually exclusive factors: They generate large government revenues that can be claimed by local ethno-territorial groups. Furthermore, resource extraction often has harmful environmental consequences that endanger the traditional livelihood of the local population. The reason why this is especially true for indigenous people is that they not only engage more often in agricultural activities than non-indigenous groups of population, but they also have a stronger emotional or cultural bond to their ancestral homeland. Especially the latter aspect also limits the range of acceptable bargains over territory. Indigenous territory might take on features of “indivisibility” (Hassner, 2003)—for both sides, indigenous groups and the state.

In addition, the state—due to the economic and strategic relevance of natural resource extraction—might be particularly susceptible to acts of contentious politics, increasing the bargaining leverage of indigenous activists as well as fostering a unified “indigenous” identity from outside. Indigenous groups will be much more likely to successfully organize collective contentious action, giving natural resources an important catalytic role. The increase in capability and disposition to engage in collective contentious action, especially against the state, also hold true beyond resource-related conflict issues.

We test this argument with novel, spatially and temporally disaggregated data from Bolivia. Systematically focusing on structural causes and not so

much on situational causes of conflict dynamics, as previous country-specific studies have done, our disaggregated quantitative analysis finds that—in accordance with our main hypothesis—there is a conflict-promoting effect of the interaction of gas reserves and indigenous groups. Although several other factors play an important role, notably the socio-economic environment, road infrastructure, and government inclusion, across a series of model specifications, we find clear evidence in favor of a conditional effect of the share of the indigenous population on social conflict.

Although promising, our analysis also has some limitations. First, due to the rarity of events with fatalities, and missing data on the size of conflict events, we are unable to explore quantitatively the factors promoting escalations from simple protests and strikes to more violent forms of anti-governmental collective action. We are also unable to distinguish in our data between the specific sequence of escalation from the side of the government or indigenous groups. It is likely that conflict over natural resources affects the menu of contentious acts used by activists, as well as the type of protest policing used by government actors. As some episodes of contentious politics in Bolivia have featured more violent altercations between groups, we hope to explore further the issue of violent escalation in a qualitative micro-level study. Second, to measure the role of indigenous identity, we had to rely on the given categories of self-identification in the census, which might be insufficient to map all relevant cleavages in the Bolivian society and might furthermore not be entirely be transferred to other contexts.

Despite the mentioned shortcomings, the associational patterns we identify are important for developing a better understanding for contentious politics in Bolivia and beyond: Our argument and empirical findings contribute to the broader research literature on contentious politics by making an innovative conditional argument about the role of indigenous identity for social conflict. Although we have especially focused on indigenous identity, we believe our findings also inform the more general debate on the links between ethnic identity and conflict. Moreover, we provide specific arguments as to which conditions favor the emergence of a politicized identity frame. This establishes an important link to existing research on the role of ethnic identity and natural resources for armed conflict. We believe both research programs could benefit from more cross-fertilization (e.g., recent work by Stephan & Chenoweth, 2008, equally attempts to bridge the gap between studies of armed conflict and non-violent resistance). Our empirical analysis also aims to transfer successful empirical research designs from recent work on civil wars to the analysis of contentious politics. Our explicit focus on sub-national and temporal variation in social conflict within one country, while somewhat limiting the generalizability of our findings, offers important advantages over

the study of single cases or cross-national work. Our findings speak to broader patterns in contentious politics around the world that reflect increasing conflict potential over natural resources, as well as ongoing (violent) tensions in ethnically heterogeneous countries. Finally, our article also makes a valuable contribution to the country-specific research discourse on contentious politics in Bolivia, providing for the first time a comprehensive quantitative overview on the spatial distribution of conflict events, allowing us to match existing arguments in the literature on Bolivia against firmer empirical grounding. We hope this will spur further research on contentious politics in Bolivia.

Authors' Note

Replication Data are available at <http://cps.sagepub.com/supplemental>

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Notes

1. In this study, we focus specifically on the role of indigenous identity for social conflict. Indigenous identity, being closely related to, but still not entirely identical with the more general concept of ethnic identity is of particular importance to the Bolivian context. Nonetheless, we believe our theoretical argument and empirical analysis also informs on the relationship between ethnic identities and conflict more generally.
2. Classical resource mobilization approaches (McCarthy & Zald, 1977, 2002; Minkoff, 1993) have instead more generally studied the impact of "resources" including material but also of non-material resources such as organizational structures—without paying special interest to the impact of natural resource abundance.
3. The term of "natural resources" as used by UNIR not only includes hydrocarbons but also mining and land.
4. Although there is a general historical increase in the importance of the concept of indigenous identity in Latin America since the end of the 20th century (Postero, 2013), this identity concept is still characterized by a rather high level of fluidity.

5. The strong bond between indigenous people and “their” territory may for example be underlined by the importance of the concept of “Pachamama” (mother earth) within identity construction of several indigenous groups, especially Quechuas and Aymaras.
6. Thus, during a workshop organized by one of the authors with the local indigenous organization of the Guaraní, the AGP of Yacuiba, in August 2013 indigenous representatives commented on the negotiations with the government concerning the construction of a new gas plant with the following words: “no ha sido un diálogo más al contrario ha sido una imposición del gobierno.” Moreover, in the introductory speech of the workshop a representative of the AGP stressed the long historical entrenchment of the “pueblo guaraní en la zona del Chaco” saying that “. . . 1733 nosotros ya existíamos en este lugar, que los colonos, los españoles o los franciscanos nos han “descubierto” acá.”
7. We use the term of “issues of indivisibility” to dissociate from the concept of indivisibility in the very strict sense of “indivisibility of sacred places” used by Hassner (2003), which would actually leave “no room for compromise and no substitute for the disputed space” (p. 24).
8. With the exception only of the year 2000, when *Uppsala Conflict Data Program* (UCDP) registers a non-state low level conflict with 50 fatalities in a land dispute between the ethnic groups of Qaqachacas and Laimes at the border between the departments of Oruro and Potosí.
9. The UNIR conflict data set can be found in http://nueva.unirbolivia.org/~unir/nueva3/index.php?option=com_content&view=article&id=443&Itemid=21.
10. The data sources of CLACSO are accessible from <http://www.clacso.org.ar/institucional/lh.php>. Since 2005, tCLACSO’s Bolivian conflict chronologies are additionally based on up to two Bolivian press agencies.
11. Common forms of these conflicts are protest marches, strikes, (road) blockages, riots, or turmoil.
12. A preliminary and shortened version of the codebook of our conflict data set can be found in the annex. The complete data set will soon be published.
13. As a result of the low number of deaths in our statistical analysis, we are not able to differentiate between conflict events with and without fatalities, neither can we evaluate varying intensity of conflict events in terms of the number of actors participating in a conflict event. The number of reported injuries is 2,553, which we use in our robustness checks as an alternative measure for the intensity of social conflict.
14. We attempted to obtain similar geo-referenced data on mining activities from Bolivia’s Department of Mining, but have remained unsuccessful as of date.
15. Moreover, there is a rather small compensation fund for the non-gas-producing departments of Beni and Pando.
16. Our count includes active and inactive deposits.
17. Socio-economic development is measured as a simple index based on whether the household had access to electricity, and piped water and whether they lived in a dwelling with an earth floor.

18. Capital distance and mountainous terrain at the provincial level comes from the PRIO-GRID data, which we matched to the Bolivian provinces.
19. Data on revenue allocations come from official publications by the Ministry of Economics and Financial Affairs. These allocations do not reflect allocations at the departmental level or measure exact revenue allocations based only on natural resource revenue. As fiscal resources are fungible, we believe the overall fiscal allocation is the best way to capture attempts by the central government to buy off the local population.
20. Thus, we can control for the potential effect of a vaguely defined “regional identity” of the department of Santa Cruz, which has been quoted by several authors for being responsible for higher conflictivity in this department.
21. Fixed effects negative binomial models, as implemented for example by the statistical software STATA, rely on conditional maximum likelihood. Allison and Waterman (2002) show that these models do not control for time-invariant unobserved factors. They instead recommend as a simple approximation the use of unit dummies. The incidental parameters problem will also be less of a concern in our models, as we only include dummies at the departmental, not the provincial level.
22. Control variables were set at their means. The effects were simulated in the statistical software package R.
23. One of the authors carried out 3 months of fieldwork in Bolivia. Organizing focus-group interviews as well as semi-structured interviews with local indigenous representatives and indigenous villagers, she assessed central uttered grievances and further aspects of identity frames in different gas-extracting and non-gas-extracting regions within the lowland areas in Bolivia.
24. Given the nature of the information, we were not able to extract the number of distinct gas fields for each province.

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