**“Shut the Damn Thing Down!” Mass Transit Shutdowns as a Tactical Innovation in Bogotá, Colombia.[[1]](#footnote-1)**

**Abstract**

Using a mixed methods approach, I analyze the use of a novel disruptive protest tactic that emerged after the implementation of Bogotá’s Bus Rapid Transit (BRT) system, *Transmilenio* (TM). Specifically, I argue that the infrastructure of TM was the source of a social-psychological process of opportunity attribution substantially driven by the perceived effectiveness of a tactical innovation, namely TM shutdowns. I conducted 31 semi-structured interviews, amongst others, with rickshaw driver activists in Bogotá in order to provide qualitative evidence of the link between the perceived effectiveness of protest tactics and mobilization. Furthermore, I also use data from a new representative survey to show that respondents’ perceived effectiveness of tactics is positively associated with the likelihood of their own mobilization. In this paper I also illuminate the interplay of mobilizing structures, resources, biographical availability, and political attitudes with the perceived effectiveness of tactics and mobilization.

**Key Words:**

Tactics, protest, Latin America, repertoires of contention, social movements.

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**Introduction**

On January 29th 2011, activists from the Marsella neighborhood in Bogotá shut down a special lane on a highway that links Bogotá’s southwestern region to the city downtown.[[2]](#endnote-1) This is a special lane because it is reserved for the operation of Bogotá’s bus-based massive transportation system, *Transmilenio* (TM). Protestors shut down TM to decry the construction of a brothel in their neighborhood. Two months prior, dozens of truck drivers shut down TM in the same location to dispute national freight-related regulations.[[3]](#endnote-2) These are not isolated events. I submit that activists’ decision to shut down TM is closely related to the perceived effectiveness of this particular tactic. My aim is to delve into the relationship between the perceived effectiveness of protest tactics and mobilization, something that tends to be intrinsically difficult for both activists and academics (Soule 1999; Biggs 2013). Importantly, I intend to study mass transit shutdowns as a tactic *perceived* *as effective*, not to assess their *actual* *effectiveness* in terms of achieving specific social changes or winning concrete demands. Thus, in this article, I broadly define "perceived effectiveness" as the individual's perception that a tactic will achieve high levels of visibility (e.g. get government or media attention) and/or create high levels of disruption (e.g. alter the regular happenings of the city).

TM belongs to a broader family of transportation solutions called Bus Rapid Transport (BRT) systems (Wright and Hook 2007). BRT systems are transportation systems where public buses travel through designated lanes of existing highways (see Figure 1). To my knowledge, TM was the first BRT system in which systematic shutdowns were used to protest for issues different from the quality of service.

**[FIGURE 1 ABOUT HERE]**

I conceptualize BRT shutdowns as the result of a social-psychological process. I claim that potential activists perceive there is an *efficacy bonus* (Wang and Piazza 2016) associated with TM shutdowns due to the tremendous disruptive nature of this tactic. Wang and Piazza (2016) posit there is a relentless strategic trade-off associated with highly disruptive —and therefore potentially efficacious— tactics because they can simultaneously alienate supporters and bystanders while also attracting attention from third parties through their disruptive nature. A similar strategic trade-off is advanced by McAdam and colleagues (2001), who argue that activists simultaneously *attribute opportunity and threat* to their actions, including their tactical choices (see also Karapin 2011). In the spirit of Haines (1984), Jaspers (2004: 13) refers to a similar strategic trade-off, the *radical flank dilemma*: “[Activists’] extreme words and actions get attention, and often take opponents by surprise, but they usually play poorly with bystanders and authorities.” In sum, scholars from different theoretical perspectives argue that activists face a general strategic trade-off inherent to the use of disruptive tactics. I contribute an explanation of the role of the perceived effectiveness of tactics as a way to partially address this trade-off. Critically, my explanation uses an explicit micro-level (i.e. social-psychological) theoretical approach and individual-level data —a combination that is surprisingly absent in this literature (Jaspers 2004).

In this context, I seek to answer the following research questions: do protestors attribute opportunity to TM shutdowns? If so, how does this affect protestors own mobilization? More generally, is there evidence of a relationship between mobilization and perceived effectiveness of the tactic used for mobilization?[[4]](#endnote-3) I study BRT shutdowns in Bogotá to understand how an objective change in the environment (implementation of TM) is related to both the individual-level perception of that change (the process of opportunity attribution) and the use of a tactic that capitalizes on that very same opportunity (TM shutdowns). This is a study on the social psychology of protest since I focus on the role of activists’ perceptions on their own mobilization (Van Stekelenburg and Klandermans 2013).

Importantly, in Latin American countries, road blockades tend to happen at “a frequency that might surprise scholars in other countries.” (López-Maya 2002: 199; see also Machado, Scartascini and Tommasi 2011). Indeed, road blockades are one of the most popular tactics used by poor people’s movements throughout the region (Silva 2009; Auyero 2006; Almeida 2012). For instance, premier social movements like the *piquetero* movement in Argentina use road blockades, *piquetes,* as both its main protest tactic and as a symbol for collective identity (Harley 2014). Beyond specific social movements, road blockades are systematically used in countries like Colombia (Archila 2003), Venezuela (López-Maya 2002), Peru (Arce 2008), Bolivia (Arce and Rice 2009), Mexico (Tosoni 2007), Brazil (Carter 2010), El Salvador and Costa Rica (Almeida 2012). The fact that road blockades are heavily embedded in Latin American repertoires of contention is important since BRT systems are now highly prevalent throughout the region (Campos 2010). By studying BRT shutdowns I also advance our understanding of a novel version of road blockades, a quintessential element of Latin American protest culture.

I situate the study of BRT shutdowns in the literature that suggests the perceived effectiveness of tactics as a prominent incentive for mobilization and the diffusion of tactics (Soule 1997; Lichbach 1998; Francisco 2010; Tilly 1995; Andrews and Biggs 2006; Biggs 2013; Wang and Piazza 2016). I assume that activists’ bounded-rationality is a driving force behind both their actions and tactical choices (Walker, Martin and McCarthy 2008), including protestors’ tendency to capitalize on tactics they perceive as effective (Meyer and Staggenborg 2012; Ganz 2000). The relationship between the perceived effectiveness of tactics and mobilization has been theorized as a strategic process rooted at the individual level (Lichbach 1998). However, this relationship has been traditionally analyzed at levels of aggregation *beyond* the individual (Wang and Soule 2012; Wang and Piazza 2016; Soule 1997; Francisco 2010). I extend the literature on the strategic decision-making of social movement actors by analyzing the interplay between mobilization and tactical choice from an individual-level perspective.

**BRT Shutdowns as a Feasible Protest Tactic**

The first BRT shutdown in Bogotá occurred in April 2001, four months after TM was implemented. Colombian authorities progressively reacted to TM shutdowns by preventing them from happening. This is not surprising since tactical innovations are usually neutralized with *tactical adaptations* (McAdam 1983) from opponents. Indeed, tactical adaptation was categorical in 2012 when the Constitutional Court ratified a new law that made blocking BRT systems a felony (Decision C-742/12). This law was introduced to Congress in 2010 and enacted in 2011 as part of a larger reform to the penal system developed by the Colombian President. TM shutdowns were, therefore, highly feasible between 2000-2001 (TM implementation) and 2010-2011 (new law enactment).

TM’s infrastructure easily enables even small numbers of activists to cause massive levels of disruption. This is possible because TM-designated lanes are bound by cement blocks that are only about 15 centimeters high (see Figure 1). While these blocks allow people to distinguish between regular lanes and TM lanes on a given highway, they also create a system that is particularly easy to block because —unlike most mass transportation systems— it is subject to all restrictions associated with regular avenues (e.g. constrained by traffic lights and/or pedestrian crossings). Moreover, the fact that TM lanes do not have no access to secondary corridors, enables rather small groups of activists to block the system. Since TM transports over 2.6 million customers on an average day, I argue that all of these features (absence of secondary corridors, access by foot, few protestors needed to shut down, and a massive influx of passengers) make TM shutdowns likely to be seen as highly effective because activists perceive that they can attain unprecedented levels of visibility and disruption.

**Theoretical Framework**

Research on social movement mobilization tends to follow two tracks. On the one hand, scholars interested in individual mobilization focus on micro-level explanatory factors, including biographical availability (Corrigall-Brown 2012), resources (Brady, Verba and Schlozman 1995) or political attitudes and behaviors (Schussman and Soule 2005). On the other hand, scholars interested in meso-level explanations focus on factors like political opportunities (Meyer and Minkoff 2004), structural availability (McAdam 1986), or networks (Kitts 2000). Rarely do scholars attempt to integrate these two levels of analysis, despite calls to do so (McAdam et al. 2001; Klandermans, Van Stekelenburg and Walgrave 2014). My analysis is in line with the literature that seeks to link activists’ individual-level behaviors and perceptions to externally-generated changes in the larger environment (i.e. TM implementation).

My focus on activists’ perceptions relays on the insights of Van Stekelenburg and Klandermans (2013: 886, emphasis mine): “people —social psychologists never tire of asserting— live in a *perceived* world (…) as social psychology explores the causes of the thoughts, feelings and actions of people —and primarily how these are influenced by social contexts— it has a lot to offer to the study of protest.” In this context, I follow an explicit premise: objective changes in the larger environment cannot affect mobilization without individuals favorably reading those changes and the opportunities they might entail (McAdam et al. 2001; Boutcher 2011). The concept of attribution of opportunity is thus critical for this paper since it denotes a social-psychological mechanism that allows activists to perceive, *through their various individual and collective identities*, the objective changes that take place in their environment (McAdam et al. 2001).

The causal path between changes in the larger environment and activists’ actions and perceptions based on those changes is not unidirectional. This means that tactics can partially determine the context in which they emerge rather than being a mere epiphenomena (Rojas 2006; Taylor et al. 2009). For instance, the barricade was a tactical innovation that helped reinforce collective identity and bonds of solidarity between rebels in the Paris Commune (Traugott 1995). Road blockades had a similar role in the *piquetero* movement in Argentina (Harley 2014). Critically, Traugott reminds us that repertoires of contention, and the particular tactics they contain, are circumscribed, amongst others, by “conceptual resources*.”* (Traugott 1995: 43). Here I focus on a critical conceptual resource: theperceived effectiveness of tactics.

To be sure, the perceived effectiveness of protest tactics is not the only relevant factor to explain tactical choice and mobilization. Many other factors like institutional resources, cultural contexts, targets, counter-movements, networks of collaboration, tactical overlap, movement spillover, repression, news media, and bystanders exert an impact on tactical choice, the diffusion of tactics, and mobilization (McCarthy and Zald 1977; Meyer and Staggenborg 2012; Meyer and Whittier 1994; Wang and Soule 2012; Andrews and Biggs 2006; Olzak and Uhrig 2001; McAdam 1983; Biggs 2013; Walker et al. 2008). Similarly, activists’ perceived effectiveness of a given tactic is not the only social-psychological determinant of tactical choice and mobilization. In the next paragraphs I review other individual-level factors critical for the decision to protest.

**Explaining the Decision to Mobilize**

Why are some individuals more likely to protest than others? Initially, I consider five sets of explanatory factors: community infrastructure, physical infrastructure, biographical availability, resources, and political attitudes. I argue that these factors are limited, because they tend to overlook the individual-level perceived effectiveness of tactics.

*Community Infrastructure***.** Scholars have shown that activists mobilize in social contexts populated by networks and organizations (Snow, Zurcher and Ekland-Olson 1980; DiGrazia 2014). McAdam (1983) argues that tactical innovation requires a community, and its mobilizing structures, to emerge and diffuse (see also Ganz 2000). I expect the mobilizing structures present in a given space to be critical for the attribution of opportunity vis-à-vis concrete tactics. Here, I rely on the concept of *community infrastructure*, which refers to the set of mobilizing structures that can be activated by protestors in a concrete locality (Almeida 2012). I expect activists’ community infrastructure to be pivotal in order to understand group and network-based dynamics behind their decision to mobilize.

*Physical Infrastructure*.Physical infrastructure (e.g. transportation or communication systems) influences collective contention because it serves as a channel to mobilize protest resources (Smelser 1963). At a social-psychological level, the attribution of opportunity regarding tactical choice should be affected by how activists envision using the physical infrastructure around them. Importantly, the role played by transportation infrastructure is found to be critical to understand mobilization in the Global South (Boudreau 1996; Almeida 2012). Indeed, as mentioned earlier, the strategic use of transportation infrastructure, and road blockades in particular, are heavily anchored in the protest culture of Latin America (Auyero 2006; Silva 2009; López-Maya 2002; Harley 2014; Almeida 2012). Here, the hypothesis that activists in Bogotá systematically perceive, and use, TM shutdowns as effective seems particularly plausible.

*Biographical Availability.*Potential activists face daily constraints that can make them more or less available for protesting (Corrigall-Brown 2012). For instance, individuals who do not have children, are young, unemployed, or have flexible schedules are more prone to protest (Beyerlein and Hipp 2006). Tactical choice in general, and using a tactic perceived as effective in particular, are to an important extent individual-level processes that are therefore likely to be affected by the biographical availability of protestors.

*Resources.*Potential activists not only face biographical availability constraints, they are also constrained in terms of their resources (McCarthy and Zald 1977). From an individual-level perspective, resources in the form of education or civic skills might make mobilization more likely (Brady, Verba and Schlozman 1995). I argue that perceiving a novel tactic like BRT shutdowns as relatively effective is partially related to the resources of a given individual.

*Political Attitudes*.The literature on mobilization and political attitudes is rich and broad (Schussman and Soule 2005). Political ideology, efficacy, and political awareness are examples of preeminently psychological factors found to be correlated with mobilization and tactical innovation (Van Stekelenburg and Klandermanrs 2013; Ward 2016). As with resources, I argue that certain political attitudes (e.g. political awareness) likely influence how protestors perceive, and carry out, tactical innovations or mobilization.

To answer my research question, I will perform statistical analysis using the five factors mentioned in this section. I will also use these factors to analyze my qualitative data. Below I explain in detail the research design.

**Data and Methods.**

I employ a mixed-methods design based on both cross-sectional survey data and interview data. This approach is important to address my research question for three main reasons. First, time is by definition excluded from cross-sectional data. The cross-sectional data set I use in this article is not an exception to this principle. My qualitative data do, however, shed light on sequences of events critical for this paper, thus allowing me to incorporate time into the analysis. Second, since my quantitative data is based on a probability sample, observations (i.e. survey respondents) are by design independent (i.e. not socially connected) from each other. Mobilization, however, is a social process. My qualitative data deliver first-hand evidence of how groups, and networks, are social conduits that facilitate mobilization. Third, since I collected qualitative evidence for only one group of activists, evidence from a representative sample is necessary to assess the generality of my argument.

**Quantitative Research Design.**

I use Bogotá’s *Public Opinion Survey* (POS), a representative survey of Bogotá’s non-institutionalized population, in order to model individuals’ decision to mobilize.[[5]](#endnote-4) POS was conducted in 2011 using a sample of 520 adults. The dependent variable reads as follows: “*In the past twelve months, have you participated in a public demonstration or protest?”* Possible answers include “*Yes, I did*” and “*No, I did not*” (see table 1). Given that data are cross-sectional, this variable was modeled using logistic regressions, which are designed to accommodate binary dependent variables (Long 1997). Since coefficients from logistic regressions reflect changes in the log of the odds (logits), I take the exponent of these coefficients (elogits) to express them as odds ratios. Odds ratios describe the change in the odds of success vs. not success in the dependent variable (i.e. protested vs. did not protest) for a pair of values or levels of a covariate (e.g. male vs. female).

**[TABLE 1 ABOUT HERE]**

This data set includes a distinctive variable directly focused on TM shutdowns. This variable is designed to gauge respondents’ perceived likelihood of observing people resorting to a TM shut down in order to *solve a hypothetical problem* in their community by making their voices heard. The problem-solving (i.e. instrumental) nature of this question, and its focus on activists’ intentions to make their claims visible by making their voices heard, are deemed key to measure the perceived effectiveness of TM shutdowns. This is especially true given that in the introduction I defined perceived effectiveness in terms of activists’ perception of tactics as vehicles to generate high levels of disruption and/or make claims more visible. Importantly, the qualitative data I analyze in the second part of this article also support this definition of tactics’ perceived effectiveness. The actual question reads as follows: *“Thinking about the possibility of those who live in your neighborhood carrying out a public protest* ***to solve a given problem*** *in your community, how likely do you think it would be for these people to block a TM station or TM lane* ***to make their voices heard****?* Possible answers included “*very likely*”, “*somewhat likely*”, “*not very likely*”, and “*unlikely*.”[[6]](#endnote-5) I recoded this variable using an ordinal scale ranging from 0 to 3, moving from less to more likely. “Unlikely” was chosen as the reference category.[[7]](#endnote-6)

Since I argue that there is a positive relationship between the individual-level perceived effectiveness of a given tactic —in this case TM shutdowns— and mobilization, I expect to find that respondents who perceive TM shutdowns as a likely course of action to solve a problem in their community are also more prone to protest (see appendix A for a discussion and partial solution of endogeneity issues). Of course, the statistical analysis will move in tandem with the qualitative analysis since the role of perceptions, including the perceived effectiveness of tactics, is rather difficult to capture by only one type of analysis.

The regression models in this paper are not devoted to establish causality, which is impossible due to the cross-sectional nature of the data. I stress a qualitative interpretation of these data by calculating predicted probabilities of protesting based on ideal types of activists. I generate these ideal profiles by assigning specific attitudes and behaviors (i.e. particular values to the covariates) to respondents, including different perceptions regarding the effectiveness of TM shutdowns. Since logistic regression is a non-linear model, the effect of an explanatory variable fully depends on the specific value used for all covariates, including the explanatory variable itself (Long 1997). Creating these ideal profiles by assigning theoretically-meaningful values to key covariates is also important because this is a principled way to provide a substantive interpretation to logistic regression results (Long 1997).

In terms of theoretically-driven controls, I include specific variables to account for the five sets of explanatory factors traditionally used in the literature. First, in terms of *community infrastructure*, I use two proxies related to respondents’ participation in potential mobilizing structures available in their locality: community-improvement committees and religious services.[[8]](#endnote-7) Devoting time to civic organizations have been found to predict protest behavior in Latin America (Klesner 2007; Machado, Scartascini, and Tommasi 2011). Importantly, research on Latin America suggests that religious groups act differently as mobilizing structures when compared to community groups (Smith 2009). In Colombia, for example, Sudarsky (2001) reports a negative association between attendance to religious services and activism. Different results have been found in the case of protestant respondents in the United States, however (McVeigh and Sikkink 2001). Given these results, I separately model participation in community and religious organizations.

To capture *resources* and *biographical availability*, I employed four controls: number of years of formal schooling, gender (man = 1; woman = 0), age (in years), and number of children. Although the literature is not conclusive, some scholars find that the younger and educated individuals in Latin America tend to protest more than their older and less educated counterparts (Booth and Seligson 2008; Seligson, Smith and Zechmeister 2012). I also included two covariates to account for psychological variables related to *political attitudes*: level of political awareness[[9]](#endnote-8) and level of affinity/closeness to the politically conservative Social Party of National Unity,[[10]](#endnote-9) a proxy for political ideology in Colombia (Rodríguez-Raga and Seligson 2012). Both variables have been found to correlate with political behavior outcomes, including protesting (Smith 2009, Mutz 2002).

All models incorporate three controls that are expected to minimize the risk that the perceived effectiveness of TM shutdowns mechanically depends on TM’s *physical infrastructure* availability or on the mere frequency of past protest events. The first control is the number of TM shutdowns that took place in each respondent’s district during the year prior to the survey. This information is taken from the 2010 version of the prestigious Social Struggles Data Set.[[11]](#endnote-10) The same data set is used to generate a dummy variable for *central districts* (central = 1; non-central = 0), where central districts are the four districts historically associated with high frequency of protest in Bogotá.[[12]](#endnote-11) According to the Social Struggles Data Set, protest events that took place in central districts are 63.3% of the total number of events registered in Bogotá 2010 even though these districts only represent 6.3% of Bogotá’s total area. The third control is a binary covariate that distinguishes respondents living in districts with at least one TM station (TM = 1; no TM = 0).[[13]](#endnote-12)

**Qualitative Research Design**

Protest event data from the Social Struggles Data Set show that between 2000 and 2010 Barrios Unidos and Kennedywere the two districts in which the use of TM shutdowns was most frequent. These data also show that about 60% of the TM shutdowns in Kennedy district took place between two contiguous TM stations, namely Biblioteca Tintal station and Patio Bonitostation. Given that the distance between these two TM stations is approximately 500 meters, this particular neighborhood called Carimagua,was an ideal site to develop a qualitative case study of TM shutdowns. Carimagua is a poverty enclave, which is not entirely surprising since road blockades in Latin American tend to be used by poor people’s movements (Auyero 2006; Tosoni 2007; Arce 2008; Arce and Rice 2009; Almeida 2012).

From July to September 2012, I conducted fieldwork in Carimagua three days per week. I deploy the qualitative evidence to understand the relationship between the perceived effectiveness of TM shutdowns and concrete collective actions carried out by activists that used this particular tactic for mobilization. In this regard, I followed Biggs’ insights (2013: 409): “only in retrospect, after the success of a novel tactic, can protesters —and sociologists— fully understand the changing circumstances that made it feasible, legitimate, and effective.”

Guided by the principle of saturation (Small 2009), I conducted 31 semi-structured interviews relying on a combination of snowballing and convenience sampling. Eight interviews were conducted in three different residential complexes to gain basic insights into the happenings of Carimagua. I quickly learned that rickshaw drivers in this neighborhood had shut down TM several times. I then chose to focus on rickshaw drivers, conducting interviews with 22 of them. Interviews were conducted while rickshaw drivers were working thereby making the interviews relatively short on average (19.3 minutes). All but one rickshaw driver were young men and none of the respondents had a high school diploma.[[14]](#endnote-13) I was also able to interview an activist while she participated in a TM shutdown in protest of the poor quality of the housing in Carimagua. All the interviews were conducted in Spanish and were fully recorded with respondents’ consent. While I replaced respondent’s identifying information, I did not alter the name of the neighborhood.

**Results.**

**The Perceived Likelihood of a TM Shutdown & Ideal Types of Protestors in Bogotá.**

Table 2 presents logistic regressions that test the association between mobilization and the perceived effectiveness of TM shutdowns entered as an ordinal (Panel A) or continuous (Panel B) covariate. These models use all the controls mentioned in the data and methods section. Results, available upon request, based on a variety of model specifications subsumed in the models presented in Table 2 show that restricted (i.e. nested) models consistently exhibit inferior goodness-of-fit statistics.[[15]](#endnote-14) The models in Table 2 present unstandardized coefficients in the form of log odds (logits).

Results from the best-fitting model of the two reported in Table 2 (i.e. Model 1 in panel A), show that, controlling for all other variables in the model,[[16]](#endnote-15) respondents’ odds of participating in a protest event are 6.5 times (e1.876) greater when they think it is *very likely* a TM shutdown will be employed by their neighbors to try to solve a problem in their community, than when they think the use of such a protest tactic is *unlikely*. This constitutes the first piece of evidence in favor of the hypothesized positive relationship between the individual-level perceived effectiveness of a given tactic, in this case BRT shutdowns, and mobilization.

**[TABLE 2 ABOUT HERE]**

As expected, the influence of community infrastructure is associated with respondents’ mobilization: while those involved in community-improvement committees are more likely to protest, those involved in religious services show the opposite inclination, although the latter effect fails to reach statistical significance. These findings are compatible with existing evidence (Sudarsky 2001). Specifically, holding all other variables constant, each unit increase in community-improvement committee attendance incremented the odds of participating in a protest event by nearly 6 %. In terms of political engagement, respondents who are politically aware and left-leaning are more likely to protest. These results are also in line with the existing literature on street protests in Latin America (Machado et al. 2012; Rodríguez-Raga and Seligson 2012). For example, each unit increase in the level of ideological affinity vis-a-vis the conservative Party of National Unity significantly lowered the odds of participating in a protest event by about 2% percent, net of other factors. Finally, in terms of biographical availability, respondents who are young and with no children are also more likely to mobilize thereby also corroborating existing evidence (Beyerlein and Hipp 2006). For instance, each additional child decreased the odds of participating in a protest event by a factor of 2, net of other factors in the model.

Table 3 presents the predicted probabilities of joining a protest after controlling for all covariates included in model 1 (Table 2, Panel A). Initially, the predicted probabilities were computed for two opposite profiles. I labeled the first ideal type of individual as an *activist*. A person fitting this profile attends community-improvement committee meetings 2 weeks per year, is 22 years old, has an affinity of 0 points out of 100 to the Social Party of National Unity (i.e. is to the left of the political spectrum) and has a score of 75 out of 100 points in terms of political awareness.[[17]](#endnote-16) I conceptualize the second profile as the mirror image of the activist profile. A respondent that fits the *non-activist profile* does not attend political rallies or community-improvement committee meetings, is 67 years old, has an affinity of 75 points out of 100 to the Social Party of National Unity (i.e. is to the right of the political spectrum), and has a score of 0 out of 100 points in terms of political awareness.[[18]](#endnote-17) Both ideal types (*activist* and *non-activist*) are initially agnostic about the perceived likelihood of observing a TM shutdown intended to solve a problem in respondents’ community. In order to model this, I assigned the modal response of this variable (*not very likely*) to both ideal types.

I then used the same mirror image logic (*activist* vs. *non-activist*) to calculate the predicted probability of joining a protest *after* including a non-agnostic perception regarding TM shutdowns. More precisely, I computed predicted probabilities of joining a protest for *non-activists* who think it is *unlikely* to observe a TM shutdown in their community versus *activists* who think it is *very likely* to do so. In order to compare the predicted probabilities across all four profiles, all remaining continuous and categorical control variables included in model 1 were held constant at their mean and mode values, respectively.

As panel B in table 3 indicates, an activist who believes TM shutdowns are very likely to happen in her/his community has a predicted probability of 0.7193 of joining a protest, while a non-activist who believes TM shutdowns are unlikely to happen has a predicted probability of 0.001 of joining a protest. It is important to notice, however, that the bulk of this difference can be explained by the baseline profiles (activist vs. non-activist), which are intended to model the decision to mobilize based on traditional individual-level factors while holding constant the key variable in this study, that is, the perceived likelihood of observing a TM shutdown intended to solve a problem in the respondent’s community. In fact, as evident on panel A in table 3, when the perceived effectiveness of a TM shutdown is held constant, an activist has a predicted probability of 0.5784 of joining a protest event, while a non-activist has a predicted probability of 0.0004.[[19]](#endnote-18) These results are a reminder that “strategic choices [e.g. protesting based on the perceived effectiveness of tactics] are [only] one component of the microfoundations of political action.” (Jaspers 2004: 4).

**[TABLE 3 ABOUT HERE]**

In sum, the opportunity attribution spurred by Bogotá’s BRT infrastructure, as measured by the perceived effectiveness of shutting down TM as a way to solve a communal problem, does help explain significant changes in respondents’ probability of joining a protest. This is true above and beyond traditional individual-level explanatory factors. Therefore, the perceived effectiveness of tactics appears to be key in order to tackle the strategic trade-off related to the use of disruptive tactics discussed at the beginning of this article (Wang and Piazza 2016; Jaspers 2006). This perceived effectiveness should not be reified as *the* main explanatory factor, however. On the contrary, other individual-level factors like biographical availability, community infrastructure, or political attitudes also affect individuals’ self-reported decision to mobilize. I now turn to complement this analysis by using the qualitative evidence at hand.

**TM Shutdowns in Kennedy District: The Case of Carimagua**

I developed a case study based on interview data to deepen the quantitative findings. As I mentioned in the methods section, my qualitative data allows me to better incorporate time, as well as group dynamics and social networks, into the analysis; factors that the quantitative analysis failed to incorporate due to the nature of the data (i.e. cross-sectional data set based on a stratified probability sample). In this context, the initial interviews I conducted in Carimagua made clear that a key problem of this neighborhood was the lack of a public, legal, and affordable transportation from TM stations to peoples’ homes. There was only one public and legal, albeit expensive, transportation solution; the so-called yellow buses. In this context, hundreds ofpedal-powered rickshaws and dozens of small white vans emerged as informal, flexible, and cheap transportation solutions (see figure 2).

**[FIGURE 2 ABOUT HERE]**

This situation forged a highly competitive arena between the three different groups (rickshaw drivers, white-van drivers, and yellow-bus drivers). Rickshaw drivers were bullied both by white-van drivers and yellow-bus drivers, as well as punished by the Police. Organized rickshaw drivers were also cannibalized by informal rickshaw drivers. Organized rickshaw drivers then envisioned, and used, TM shutdowns as a way to achieve legal status by means of pressuring the city government to grant them a license to work. Rickshaw drivers not only relied on highly on disruptive tactics, however. They also carried out peaceful, government-protected, marches to the city downtown. To be sure, rickshaw drivers did not target TM *per se*, their target was the state. Indeed, the very existence of TM was critical for rickshaw drivers since their job was to provide a cheap transportation solution to get to TM stations. I submit that, to a large extent, rickshaw drivers conducted several TM shutdowns precisely because they did understand the efficacy bonus at play. In a word, the potential gains of systematically shutting TM down, but also the threats of doing so, were relatively evident for this group of activists. One of rickshaw drivers’ main potential risks was to be labeled in a negative way, and potentially boycotted, by the people living in Carimagua —their very own patrons— due to the disruption caused by TM shutdowns. It is in the delicate balance between alienation and support from the broader community that the role of the perceived effectiveness of tactics was key for the emergence of actual TM shut downs carried out by rickshaw drivers. The following paragraphs layout this interesting process.

Three different, albeit highly intertwined, layers of conflict comprised the contentious arena of Carimagua. In the first layer, yellow-bus drivers and white-van drivers were protagonists. Yellow-bus drivers believed they were entitled to block the free transit of white-vans in Carimagua because buses are legally protected and regulated while white-vans are not. Juan, a white-van driver, succinctly referred to their relationship with yellow-bus drivers: “Well, it is problematic, there are problems here and there because they block us [*nos cierran*]… and because of the way they treat us… and all of that.” I immediately asked Juan what he meant by *blocking* in this context. He explained to me: “I mean when they block you because of passengers…when they block you… like to prevent you from picking-up new passengers.” (Juan, white-van driver in Carimagua)

The second layer of conflict is characterized by white-van drivers as victimizers and rickshaw drivers as victims. Since both actors operate informally, their fights are more personal and violent when compared to conflicts between white-van and yellow-bus drivers. The third conflict layer is restricted to organized and unorganized rickshaw drivers. Unorganized rickshaw drivers jeopardize organized drivers by taking advantage of the informal nature of this business, serving the patrons of established rickshaw drivers who belong to rickshaw organizations. Struggles in this layer are also highly personal and violent. Mario, a member of a formal association of rickshaw drivers, ASOTRICCOL, commented on this issue when I asked him about the advantages of being a member of a rickshaw driver organization: “The good thing about it is that no one messes with you (…) If you are not a member it’s complicated because then the other [i.e. organized] rickshaw drivers just come and beat you up and slash your tires.” (Mario, organized rickshaw driver in Carimagua).

Virtually all rickshaw drivers I interviewed were fully aware of the importance of pressuring for a city-granted legal license to work. They strongly believed it will prevent fights with white-van drivers and, especially, with the Police. The Police tended to do unexpected raids to confiscate rickshaws because of their illegal status. Even inhabitants of Carimaguamentioned Police actions towards rickshaw drivers as a motivation for rickshaw drivers to protest and shut TM down. For instance, according to Dario: “The rickshaw drivers also shut down Transmilenio, right there in Cali Avenue across from Biblioteca el Tintal. They blocked the TM busway for an entire day. Actually, they have blocked it several times because the Police do not let them work, they have not been able to obtain a license to work. That’s what you get when you don’t let people work…” (Dario, inhabitant of Carimagua).

Dario’s account shows positive, albeit indirect, support to rickshaw drivers shutting TM down, which is a common finding in my data. There was one instance, however, in which an inhabitant of Carimagua conceptualized TM shutdowns carried out by rickshaw drivers in a very negative way. In that instance, Arlene, referred to rickshaw drivers as a group of “potheads (*marihuaneros*) that frequently block TM, they see no problem in messing with people’s time.” This is evidence of the critical balance between alienation and support from the broader community around TM shut downs.

As mentioned before, rickshaw drivers not only pressured the city government by shutting down TM. For example, Pablo, a rickshaw driver leader, described a legal (non-disruptive) demonstration that rickshaw drivers carried out during April of 2009. This demonstration was called for by a city-wide confederation of rickshaw drivers, an umbrella organization that brings together local associations such as the previously mentioned ASOTRICCOL. According to a note in a prominent newspaper, at least 1,000 rickshaw drivers participated in this demonstration, which took place at the city hall.[[20]](#endnote-19) In Pablo’s account, both community infrastructure in the form of mobilization structures such as ASOTRICCOL and resources in the form of flexible work schedules, leaders with organizational skills, and time availability emerged as important assets for mobilization:

**Interviewer**: How was the march possible?

**Pablo**: The leadership of the confederation assigned a specific time in which every rickshaw driver working in a given route had to join the march. We [ASOTRICCOL] joined the march at 9:00 a.m. By that time, 8 different associations were already marching. We were marching right after them.

**Interviewer**: How many of you guys made it?

**Pablo**: Most of us, I’m pretty sure…. It was kind of easy, it is not like we have office hours you know? For the most part, we come to work because we need it, but we have no boss telling us to follow a strict schedule… we own our time, if we want to protest we can do it, cops [*tombos*] permitting (Pablo, rickshaw driver leader).

I then asked Pablo about his role in this large-scale protest. Here, the contribution of social networks to mobilization beyond the membership in formal organizations is clear: “Well, Camilo and Felipe [leaders from a different organization of rickshaw drivers] talked me into it. I then talked to my ASOTRICCOL co-workers [*compañeros*] about it.” (Pablo, rickshaw driver leader).

Later in the conversation, Pablo mentioned that rickshaw drivers had also shut down TM several times. In general, rickshaw drivers were not always willing to directly acknowledge their participation in TM shutdowns. This is the case because pressuring the city government was certainly perceived by rickshaw drivers as a risky move that could undermine the legitimacy of their claims. Pablo’s words suggest that rickshaw drivers decided to shut down TM not only because of the objective availability of this particular infrastructure, but because the perceived effectiveness of the tactic. Specifically, I asked him why rickshaw drivers have shut down TM in the past. He replied:

It is said that to gain government’s attention, people have to go there directly to TM, to shutdown TM, so that the government finally listens to people. When the neighborhood needs something, when the rickshaw drivers need something, or at least to be heard, TM is the most effective method. (Pablo, rickshaw driver leader).

From this statement, it is clear that Pablo attributes opportunity to TM’s infrastructure because of the perceived effectiveness of TM shutdowns in terms of drawing government’s attention to a pressuring social issue. Although Pablo’s choice of language indicates a desire to disassociate from the practice of shutting TM down, his words show how the perceived effectiveness of TM shutdowns, and the consequent attribution of opportunity, was greater than the threat attributed to partake in them.

This argument was also supported by Carmen, a Carimagua inhabitant and activist I managed to interview in the field during a TM shutdown organized in protest of urban planning policies developed by the city and national governments. When I asked her why was she shutting down TM, she replied: “The media is going to arrive here, this kind of highway [TM lines] is always very crowded. Here we can cause a traffic jam and get media coverage. We hope our actions get public authorities’ attention and even the President’s attention. We have to shut the damn thing down! This is our way to change whatever is going on up there [at the national government level].” I immediately asked Carmen if this was her first time shutting TM down, she said: “It is, yes. But, have you heard about the mess rickshaw drivers have done here before by shutting down TM? (Carmen, activist protesting in Carimagua). Like Pablo, Carmen also conceptualizes tactics’ perceived effectiveness in terms of their potential to attain high levels of visibility (e.g. get government or media attention) and disruption.

Carmen’s words are also important because they remind us the importance of the perceived effectiveness of protest tactics in the context of time-dependent, and ever-changing, repertoires of contention. Concrete activists capitalize on concrete opportunities, and when they do so, they open up new opportunities (and constraints) for activists to (re)learn, (re)shape or simply forget specific tactics (Ganz 2000). All this happens in a specific context shaped by several factors (e.g. biographical availability, community and physical infrastructure), including past protest events. In short, the qualitative evidence at hand remind us that the timing of protest events is important to perceive certain tactics as more or less effective.

Several other accounts vis-à-vis the perceived effectiveness of TM shutdowns were provided by other rickshaw drivers. For example, Alonso, a rank-and-file rickshaw driver, put it this way when I asked him why to do a TM shut down: “look at all those people inside that TM bus over there, that’s a hell of a lot (*un montón*) of people that will be mad if someone decides to fuck (*joder*)with TM, right?” Clearly, Alonso is alluding to the relentless strategic trade-off associated with disruptive tactics due to their capacity to simultaneously alienate or attract third parties. Santiago, another rank-and file rickshaw driver, was far more direct than Alonso or Pablo. In his account, Santiago alludes to the role of social influence and social networks: “if they [the government] don’t let us work, sometimes we don’t let them [TM users] get to work (…) I have tried to convince several of many co-workers [compañeros] about this idea, some of them have followed my lead [seguido la cuerda].” As noted by Pablo, not all rickshaw drivers believed in the effectiveness of this tactic, however. Carlos, for example, mentioned this: “some radicals think that by shutting TM they will achieve something. I think I will achieve far more by working hard to feed my daughter.” This statement should not be at all surprising, and could be explained based on the literatures on biographical availability (given Carlos’ reference to his daughter) and political attitudes (given Carlos’ pejorative reference to protestors as “radicals”), especially in light of the regression results I reported earlier where I found that both parents and conservative respondents were less likely to protest.

As shown above, however, the bulk of my qualitative evidence suggests that the attribution of opportunity spurred by the perceived effectiveness of TM shutdowns is positively associated with the likelihood of activists’ own mobilization. Therefore, after revisiting the original research question, I argue that the evidence at hand strongly suggests that there is indeed an empirical relationship between mobilization and perceived effectiveness of the tactic used for mobilization. More precisely, I find that dismissing the individual-level perceived effectiveness of protest tactics is likely to be a mistake when developing analytic accounts for *both* the use of disruptive tactics and mobilization more generally.

**Conclusion**

I have shown that an external change in the larger environment (implementation of Bogotá’s BRT system) is the material source of a process of opportunity attribution spurred by the perceived effectiveness of a protest tactic, BRT shutdowns. The qualitative evidence shows that protestors do conceptualize TM shutdowns as highly effective in terms of their potential to attain high levels of visibility and disruption; thus, explaining why they ultimately use this tactic. Activists in Carimagua perceived TM shutdowns as an effective tactic both because of its feasibility and potential for disruption (efficacy bonus), and also because other activists’ past use of this tactic has led new protestors to perceive it as highly effective. Community infrastructure, in the form of formal rickshaw driver organizations, and the social networks within and across them, also emerge as key correlates behind TM shutdowns in the qualitative data. In this sense, both time in terms of specific sequences of events and social influence flowing through networks, emerged as key explanatory factors in the qualitative data. Importantly, activists in Carimagua were also fully aware that the use of such a disruptive tactic could alienate supporters and undermine the legitimacy of their claims vis-à-vis the city government and the broader community. In this context, they still decided to shut down TM several times. In other words, activists still decided to mobilize partially because of the efficacy bonus associated with the disruptive nature of TM shut downs. Furthermore, the quantitative data show how respondents’ perceived likelihood of observing a TM shutdown intended to solve a hypothetical problem in their community does contribute to explain the likelihood of their own mobilization. In sum, the evidence I compiled and analyzed does show how social-psychological processes rooted at the individual-level are critical to understand how potential activists can read and take advantage of macro-level contingencies (i.e. the implementation of TM) that influence the context in which contentious politics usually takes place.

Future research should address the issues of endogeneity and time-order that underlie the quantitative analysis. The use of panel data on protest events such as those contained in the Social Struggles Data Set (Archila 2003) is very promising in the Colombian case. In this context, Van Stekelenburg and Klandermans (2103) have developed an encompassing plea for the investigation of dynamic models of the social psychology of protest based on longitudinal data. From a different theoretical perspective, Jaspers (2004) has also argued in favor of a dynamic analysis of the processes involved in the development of strategic choices at the micro-level.

It should be noted that community infrastructure, which refers to the set of mobilizing structures that can eventually be activated by a group of protestors in a given locality (Almeida 2012), emerged as an important and consistent explanatory factor. The qualitative evidence shows that rickshaw drivers’ associations enabled the emergence of collective contention in general, and the use of TM shutdowns in particular. Similarly, the survey data suggested that the frequency with which individuals are involved in community-improvement committees impacts the likelihood of the respondent’s own mobilization. The biographical availability and resources of protestors were also consistently found to be important in this paper. Specifically, the flexibility of rickshaw drivers’ work schedules, and the existence of skilled leaders on the one hand, as well as respondents’ age and their number of children on the other, played a critical role in the qualitative and quantitative analyses alike. Finally, respondents’ political awareness and ideology also played a role in findings I report in this paper.

Future research should address the expansion of BRT systems and their relationship to mobilization in other latitudes. This is important because the extraordinary expansion of this particular transportation system throughout the Global South (Campo 2010) increases the potentialmodularity of BRT shutdowns. For reasons outlined in this paper, however, each case should be carefully analyzed since the interactions between the process of opportunity attribution, the physical infrastructure of a given place, and its community infrastructure are complex and context-specific.

Finally, the fact that TM’s infrastructure itself is a central piece of the analysis reminds us about the relevance of the physical infrastructure, and space more generally, for collective contention in Latin America. Since road blockades, of which BRT shutdowns are a subset, are firmly anchored in the Latin American tactical repertoire (Archila 2003; Auyero 2006; Silva 2009; Almeida 2012; Harley 2014; Arce 2008; López-Maya 2002), BRT shutdowns emerge as a novel avenue to explore the strong connection between social movements and space in Latin America, a relationship that has been noted elsewhere (Zibechi 2012; Porto 2001). In particular, the analyses I performed are a reminder of the centrality of transportation infrastructure for existing theories of mobilization and tactical innovation, especially in the Global South (Almeida 2012; Boudreau 1996). In this context, this paper shows that spatial transformations (i.e. the implementation of TM in Bogotá) are indeed critical to develop a sound understanding of mobilization and tactical choice*.*

**References**

Almeida, Paul. 2012. “Subnational Opposition to Globalization.” *Social Forces* 90(4): 1051–1072.

Auyero, Javier. 2006. “The Moral Politics of Argentinean Crowds.” Pp. 147-162. *Latin American Social Movements: Globalization, Democratization, and Transnational Networks.* H. Johnston and P. Almeida, editors. Rowman & Littlefield.

Arce, Moisés. 2008. “The Repoliticization of Collective Action after Neoliberalism in Peru.” *Latin American Politics and Society* 50: 37-62.

Arce, Moisés, and Roberta Rice. 2009. “Societal Protest in Post-Stabilization Bolivia.” *Latin America Research Review* 44(1): 88-101.

Andrews, Kenneth, and Michael Biggs. 2006. “The Dynamics of Protest Diffusion.” *American Sociological Review* 71(5): 752–77.

Archila, Mauricio. 2003. *Idas y Venidas, Vueltas y Revueltas*. Bogotá: Icanh-Cinep.

Beyerlein, Kraig, and John Hipp. 2006. “From Pews to Participation: The Effect of Congregation Activity on Bridging Civic Engagement.” *Social Problems* 53(1): 97–117.

Biggs, Michael. 2013. “How Repertoires Evolve: The diffusion of Suicide Protest in the Twentieth Century.” *Mobilization* 18(4): 407–28.

Boudreau, Vincent. 1996. “Northern Theory, Southern Protest: Opportunity Structure Analysis in Cross-National Perspective.” *Mobilization* 1(2): 175–189.

Booth, John, and Mitchell Seligson. 2008. ‘‘Inequality and Democracy in Latin America.’’ In *Poverty, Participation, and Democracy: A Global Perspective,* edited by Anirudh Krishna, pp. 94–124. New York: Cambridge University Press.

Boutcher, Steven. 2011. “Mobilizing in the Shadow of the Law: Lesbian and Gay Rights in the Aftermath of Bowers v. Hardwick.” *Research in Social Movements, Conflict and* Change 31: 175–205.

Brady, Henry, Sidney Verba, and Kay Scholzman. 1995. “Beyond SES: A Resource Model of Political Participation.” *American Political Science Review* 89(2): 271–94.

Campo, Carlos. 2010. “Bus Rapid Transit: Theory and Practice in the United States and Abroad.” Civil Engineering M.Sc. Thesis, Georgia Institute of Technology.

Carter, Miguel. 2010. “The Landless Rural Workers Movement and Democracy and Brazil.” *Latin America Research Review* 45(4): 186-217.

Cornwell, Benjamin and Edward O. Laumann. 2015. “The Health Benefits of Network Growth” *Social Science & Medicine* 125: 94-106.

Corrigall-Brown, Catherine. 2012. *Patterns of Protest: Trajectories of Participation in Social Movements*. Stanford: Stanford University Press.

DiGrazia, Joseph. 2014. “Individual Protest Participation in the United States” *Social Science Quarterly* 95(1): 111–31.

Firth, David. 1993. “Bias Reduction of Maximum Likelihood Estimates.” *Biometrika* 80(1): 37–38.

Francisco, Ronald. 2010. *Collective Action Theory and Empirical Evidence*. New York: Springer.

Ganz, Marshall. 2000. “Resources and Resourcefulness: Strategic Capacity in the Unionization of California Agriculture, 1959-1966.” *American Journal of* *Sociology* 105(4): 1003–1062.

Haines, Herbert H. 1984. “The Radicalization and Funding of Civil Rights: 1957-1970” *Social Problems* 32(1): 31-43.

Harley, Anna. 2014. “The Pedagogy of Road Blockades.” *Interface* 6(1): 266-296.

Jaspers, James M. 2004. “A Strategic Approach to Collective Action” *Mobilization* 9(1): 1-16.

Karapin, Roger. 2011. “Opportunity/Threat Spirals in the U.S. Women’s Suffrage and German Anti-Immigration Movements.” *Mobilization* 16(1): 65–80.

King, Gary, and Langche Zeng. 2001. “Logistic Regression in Rare Events Data.” *Political Analysis* 9(2): 137–163.

Kitts, James. 2000. “Mobilizing in Black Boxes: Social Networks and Participation in Social Movement Organizations.” *Mobilization* 5(2): 241–67.

Klandermans, Bert, Jacquelien van Stekelenburg and Stefaan Walgrave. 2014. “Comparing Street Demonstrations.” *International Sociology* 29(6): 493-503

Lichbach, Mark. 1998. *The Rebel’s Dilemma.* Ann Arbor: University of Michigan Press.

Lichbach, Mark. 1995. “The 5% rule.” *Rationality and Society* 7(1): 126–128.

Long, Scott. 1997. *Regression Models for Categorical and Limited Dependent Variables*. Thousand Oaks: Sage Publications.

Machado, Fabiana, Carlos Scartascini and Mariano Tommasi. 2011. “Political Institutions and Street Protests in Latin America.” *Journal of Conflict Resolution* 55(3): 340-365.

McAdam, Doug. 1983. “Tactical Innovation and the Pace of Insurgency.” *American Sociological* *Review* 48(6): 7354–754.

McAdam, Doug. 1986. “Recruitment to High-Risk Activism: The Case of Freedom Summer.” *American Journal of Sociology* 92(1): 64-90.

McAdam, Doug, Sidney Tarrow, and Charles Tilly. 2001. *Dynamics of Contention*. New York: Cambridge.

McCarthy, John, and Mayer Zald. 1977. “Resource Mobilization and Social Movements.” *American Journal of Sociology* 82(6): 1212–41.

McDonnell, Mary H., Brayden G. King, and Sarah Soule. 2015. “A Dynamic Process Model of Private Politics.” *American Sociological Review* 80(3): 654-678.

McVeigh, Rory, and David Sikkink. 2001. “God, Politics, and Protest: Religious Beliefs and the Legitimation of Contentious Tactics.” *Social Forces* 19(4): 1425–58.

Meyer, David, and Debra Minkoff. 2004. “Conceptualizing Political Opportunity.” *Social Forces* 82(4): 1457–92.

Meyer, David, and Nancy Whittier. 1994. "Social Movement Spillover." *Social Problems* 41(2): 277–98.

Meyer, David, and Suzanne Staggenborg. 2012. “Thinking about Strategy.” Pp. 3–33 in *Strategies for Social Change*, edited by Gregory Maney, Rachel Kutz-Flamenbaum, Deana Rohlinger, and Jeff Goodwin. Minnesota: University of Minnesota Press.

Mutz, Diana. 2002. “The Consequences of Cross-cutting Networks for Political Participation.” *American Journal of Political Science* 46(4): 838-855.

Olzak, Susan, and Noah Uhrig. 2001. “The Ecology of Tactical Overlap.” *American Sociological Review* 66(5): 694–710

Porto, Carlos W. 2001. *Geo-grafías. Movimientos Sociales, Nuevas Territorialidades y Sustentabilidad*. México: Siglo XXI.

Rodríguez-Raga, Juan, and Mitchell Seligson. 2012. *Cultura Política de la Democracia en Colombia y en las Américas*. Bogotá: USAID.

Rojas, Fabio. 2006. “Social Movement Tactics, Organizational Change and the Spread of African-American Studies.” *Social Forces* 84(4): 2139–58.

Seligson, Mitchell, Amy E. Smith and Elizabeth Zechmeister. 2012. *The Political Culture of Democracy in the Americas, 2012*. Nashville: Latin American Public Opinion Project.

Silva, Eduardo. 2009. *Challenges to Neoliberalism in Latin America*. Cambridge University Press.

Small, Mario. 2009. “How Many Cases Do I Need?” *Ethnography* 10(1): 5–38.

Smelser, Neil. 1963. *Theory of Collective Behavior.* New York: Free Press.

Smith, Amy E. 2009. “Legitimate Grievances.” *Latin America Research Review* 44(3): 102-126.

Snow, David, Louis Zurcher, and Sheldon Ekland-Olson. 1980. “Social Networks and Social Movements: A Microstructural Approach to Differential Recruitment.” *American Sociological* *Review* 45(5): 787–801.

Soule, Sarah. 1997. “The Student Divestment Movement in the United States and Tactical Diffusion.” *Social Forces* 75(3): 855–83.

Soule, Sarah. 1999. “The Diffusion of an Unsuccessful Innovation” *Annals of the American Academy of Political and Social Science* 566(1): 120-131.

Sudarsky, John. 2001. *El Capital Social de Colombia*. Bogotá: Departamento Nacional de Planeación.

Sudarsky, John. 2007. *La Evolución del Capital Social en Colombia.* Bogotá: Fundación Restrepo Barco.

Schussman, Alan, and Sarah Soule. 2005. “Process and Protest: Accounting for Individual Protest Participation.” *American Journal of Sociology* 84(2): 1083–1108.

Tarrow, Sidney. 1994. *Power in Movement.* Cambridge: Cambridge University Press.

Taylor, Verta, Katrina Kimport, Nella Van Dyke, and Ellen Andersen. 2009. “Culture and Mobilization: Tactical Repertoires, Same- Sex Weddings, and the Impact on Gay Activism.” *American Sociological Review* 74(6): 865–90.

Tosoni, María M. 2007. “Notas sobre el Clientelismo Político en La ciudad de México.” *Perfiles Latinoamericanos* 29: 47-69.

Traugott, Mark. 1995. “Barricades as Repertoire” Pp. 43–56 in *Repertoires and Cycles of Collective Action*, edited by Mark Traugott. Durham: Duke University Press.

Van Stekelenburg, Jacquelien and Bert Klandermans. 2013. “The Social Psychology of Protest.” *Current Sociology* 61(5-6): 886-905.

Walker, Edward, Andrew Martin, and John McCarthy. 2008. "Confronting the State, the Corporation, and the Academy." *American Journal of Sociology* 114(1):35–76.

Wang, Dan J. and Alessandro Piazza. 2016. “The Use of Disruptive Tactics as Trade-off: The Role of Social Movement Claims.” *Social Forces* 94(4): 1675-1710.

Wang, Dan J., and Sarah Soule. 2012. “Social Movement Organizational Collaboration” *American Journal of Sociology* 117(6): 1674–1722.

Wright, Lloyd, and Walter Hook. 2007. *Bus Rapid Transit Planning Guide.* New York: Institute for Transportation and Development Policy.

Zaller, John. 1992. *The Nature and Origins of Mass Opinion*. Nueva York: Cambridge University Press.

**Figure 1. El Dorado Line, Transmilenio**



**Table 1. Descriptive Statistics, POS 2011 (N=520)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variables** | **Mean or Prop.** | **Std.**  **Dev.** | **Range** | **%**  **missing** |
| ***Dependent Variable*** | | | | |
| **Protested (yes = 1)** | 0.052 | 0.222 | 0 – 1 | 0.00 |
| ***Ordinal Covariate*** | | | | |
| **TM shutdowns**  **Unlikeky**  **Not very likely**  **Somewhat likely**  **Very likely** | 0.312  0.353  0.162  0.175 |  | 0 – 3 | 2.50 |
| ***Continuous Covariates*** | | | | |
| **Community-improvement committee meetings (week/year)** | 2.304 | 8.966 | 0 – 52 | 0.00 |
| **Attendance religious services (week/year)** | 24.640 | 23.750 | 0 – 52 | 0.00 |
| **Years of education** | 11.131 | 5.076 | 0 – 22 | 0.00 |
| **Age** | 43.288 | 17.413 | 18 – 89 | 0.00 |
| **Number of children** | 1.975 | 1.831 | 0 – 12 | 0.00 |
| **Political awareness** | 44.183 | 24.802 | 0 – 100 | 0.00 |
| **Affinity to Party of National Unity (Ideology)** | 40.721 | 31.869 | 0 – 100 | 2.83 |
| **Freq. of TM shutdowns in respondent’s district in 2010** | 2.069 | 1.950 | 0 – 7 | 0.00 |
| ***Dummy Covariates*** | | | | |
| **TM infrastructure in respondent’s district (yes = 1)** | 0.880 | 0.324 | 0 – 1 | 0.00 |
| **Respondent lives in central district (yes = 1)** | 0.090 | 0.287 | 0 – 1 | 0.00 |
| **Sex (male =1)** | 0.490 | 0.490 | 0 – 1 | 0.00 |

**Figure 2. Transportation Solutions in Carimagua**

|  |  |
| --- | --- |
| **White Vans** | **Yellow Buses** |
|  |  |
| **Rickshaws** | **TM (Patio Bonito Station)** |
|  |  |

**Table 2. Binary Logistic Regression Equation for Having Protested in the Past Year in Bogotá (Log Odds), POS 2011 (N = 520)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | | **Panel A (Model 1)** | **Panel B (Model 2)** |
| **Dependent variable**  **(participated in a protest event = 1)** | | **TM ordinal** | **TM continuous** |
| *Key explanatory variable* | *Key explanatory variable is categorical* | | *Key explanatory variable is continuous* |
| **TM shutdown (ref= unlikely)** | |  |  |
| **Not very likely** | | 1.2507† | 0.4081† (0.2256) |
|  | | (0.6533) |
| **Somewhat likely** | | -0.7302 |
|  | | (1.1762) |
| **Very likely** | | 1.8755\* |
|  | | (0.7436) |
| **Community-improvement committee** | | 0.0634\*\*\* | 0.0611\*\*\* |
|  | | (0.0181) | (0.0171) |
| **Attendance religious services** | | -0.0189 | -0.0189† |
|  | | (0.0117) | (0.0114) |
| **Education** | | 0.0560 | 0.0529 |
|  | | (0.0607) | (0.0557) |
| **Age** | | -0.0513\* | -0.0474\* |
|  | | (0.0217) | (0.0211) |
| **Sex (men =1)** | | -0.0560 | -0.0715 |
|  | | (0.4672) | (0.4560) |
| **Number of children** | | -0.7804\* | -0.7257\* |
|  | | (0.3073) | (0.3031) |
| **Political awareness** | | 0.0450\*\*\* | 0.0455\*\*\* |
|  | | (0.0122) | (0.0118) |
| **Affinity Party of National Unity (ideology)** | | -0.0199\* | -0.0184\* |
|  | | (0.0080) | (0.0076) |
| **Freq. TM shutdowns in respondent’s district** | | -0.0689 | 0.0250 |
|  | | (0.1734) | (0.1638) |
| **TM infrast. in respondent’s district (yes = 1)** | | 0.9063 | 1.0233 |
|  | | (0.8698) | (0.8406) |
| **Respondent lives in central district (yes = 1)** | | 0.3904 | 0.0652 |
|  | | (1.0189) | (.9784) |
| **Constant** | | -4.226\*\* | -4.3655\*\* |
|  | | (1.455) | (1.3741) |
| **N** | | 520 | 520 |
| **AIC** | | 165.8883 | 170.4156 |
| **BIC** | | 229.6957 | 225.7154 |
| **Likelihood-ratio test** | |  | **M1 vs. M2** |
| **Ho: fit M2 ≥ fit M1; Ha: fit M2 < fit M1** | |  | 8.53\* |

†<0.1;\* <0.05; \*\* <0 .01; \*\*\*<0.001 (two-tailed tests); standard errors in parentheses.

**Table 3. Predicted Probability of Having Joined a Protest as a Function of Respondent’s Profile (N=520)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Panel** | **Ideal Type Profile** | **Explanatory Variable: TM shutdown** | | **Pr (having joined a protest event = 1)** | **95% Confidence Interval** |
| **A** | Activist | Not very likely (mode) | | 0.5784 | 0.2582 – 0.8987 |
|  | Non-Activist | Not very likely (mode) | | 0.0004 | 0.0000 – 0.0016 |
|  |  | |
| **B** | Activist | Very likely | | 0.7193 | 0.4241 – 1.0000 |
|  | Non-Activist | Unlikely | | 0.0001 | 0.0000 – 0.0004 |

**Table A. Regressions Equations for the Perceived Likelihood of Observing a TM Shutdown, POS 2011 (N = 520)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Model A.1:** | | | **Model A.2: Logistic Reg.** | **Model A.3: Logistic Reg.** | **Model A.4: Linear Reg.** |
| **Ordered Logit Reg.** | | |
| Specifications of the D.V.: | TM shutdown: Unlikely = 0 (ref); not very likely = 1; somewhat likely = 2; very likely = 3. | | | TM shutdown: Unlikely & not very likely = 0 (ref); somewhat likely & very likely = 1. | TM shutdown: Unlikely & not very likely & somewhat likely = 0 (ref) & very likely = 1. | TM shutdown: Continuous |
| *Key explanatory variable* | | |  |  |  |  |
| **Have protested (yes = 1)** | | | 0.2656 | -0.1498 | 0.7449 | 0.1804 |
|  | | | (0.3856) | (0.4661) | (0.5006) | (0.2187) |
| *Controls* | | |  |  |  |  |
| **Community-improvement committee** | | | -0.0119 | -0.0047 | 0.0039 | -0.0039 |
|  | | | (0.0099) | (0.0116) | (0.0128) | (0.0052) |
| **Attendance religious services** | | | 0.0074\* | 0.0060 | 0.0042 | 0.0038† |
|  | | | (0.0036) | (0.0043) | (0.0053) | (0.0020) |
| **Education** | | | -0.0261 | -0.0308 | -0.0708\* | -0.0173 |
|  | | | (0.0190) | (0.0224) | (0.0284) | (0.0107) |
| **Age** | | | -0.0223\*\*\* | -0.0213\*\* | -0.0127 | -0.0117\*\* |
|  | | | (0.0064) | (0.0075) | (0.0089) | (0.0035) |
| **Sex (men =1)** | | | 0.2578 | 0.3267 | 0.1003 | 0.1402 |
|  | | | (0.1660) | (0.1997) | (0.2456) | (0.0951) |
| **Number of children** | | | 0.0399 | -0.0052 | 0.0673 | 0.0227 |
|  | | | (0.0609) | (0.0715) | (0.0826) | (0.0337) |
| **Political awareness** | | | -0.0070† | -0.0102\* | -0.0053 | -0.0040† |
|  | | | (0.0038) | (0.0046) | (0.0057) | (0.0022) |
| **Affinity Party of National Unity (ideology)** | | | -0.0019 | -0.0021 | -0.0026 | -0.0011 |
|  | | | (0.0027) | (0.0031) | (0.0038) | (0.0015) |
| **Freq. TM shutdowns in respondent’s district** | | | 0.0362 | 0.1598 | 0.0851 | 0.0269 |
|  | | | (0.0604) | (0.4830) | (0.0852) | (0.0345) |
| **TM infrast. in respondent’s district (yes = 1)** | | | -0.3747 | -0.2404 | -0.3792 | -0.2214 |
|  | | | (0.2726) | (0.3201) | (0.3952) | (0.1583) |
| **Respondent lives in central district (yes = 1)** | | | 0.0742 | -0.0486 | -0.0757 | -0.0125 |
|  | | | (0.3871) | (0.0725) | (.5604) | (0.2205) |
| **Constant** | | **Cut 1:** 2.3457 | | 1 .0968\* | -0.1236 | 2.0567\*\*\* |
|  | | (0.4087) | | (0.4713) | (0.5713) | (0.2260) |
|  | | **Cut 2**: -0.7929 | |  |  |  |
| (0.3960) | |
|  | | **Cut 3**: -0.1123 | |  |  |  |
| (0.3960) | |
| **N** | | | 520 | 520 | 520 | 520 |
| **AIC** | | | 1380.087 | 660.2013 | 490.3368 |  |
| **BIC** | | | 1443.894 | 715.501 | 545.6366 |  |
| **R2** | | | - | - | - | 0.0583 |

†<0.1; \* <0.5; \*\* <0 .01; \*\*\*<0.001 (two-tailed tests); standard errors in parenthesis. Note: The ordered logit violates the parallel regression assumption

**Table B. Firth’s Logistic Regressions for Rare Events: Equations for Having Protested in the Past Year in Bogotá, POS 2011 (N = 520)**

|  |  |  |
| --- | --- | --- |
| **Variables** | **Model B.1** | **Model B.2** |
| **Dependent variable**  **(participated in a protest event = 1)** | **Unrestricted model for rare events: TM categorical** | **Unrestricted model for rare events: TM continuous** |
| *Key explanatory variable* |  |  |
| **TM shutdown (ref= unlikely)** |  |  |
| **Not very likely** | 1.0916† | 0.3803† |
|  | (0.6078) | (0.2135) |
| **Somewhat likely** | -0.4374 |  |
|  | (0.9923) |  |
| **Very likely** | 1.6812\* |  |
|  | (0.6881) |  |
| *Controls* |  |  |
| **Community-improvement committee** | 0.0579\*\*\* | 0.0570\*\*\* |
|  | (0.0164) | (0.0157) |
| **Attendance religious services** | -0.0162 | -0.0163 |
|  | (0.0109) | (0.0107) |
| **Education** | 0.0481 | 0.0454 |
|  | (0.0576) | (0.0533) |
| **Age** | -0.0442\* | -0.0415\* |
|  | (0.0201) | (0.0197) |
| **Sex (men =1)** | -0.0694 | -0.0862 |
|  | (0.4385) | (0.4323) |
| **Number of children** | -0.6933\* | -0.6575\* |
|  | (0.2880) | (0.2868) |
| **Political awareness** | 0.0395\*\* | 0.0407\*\*\* |
|  | (0.0114) | (0.0111) |
| **Affinity Party of National Unity (ideology)** | -0.0176\* | -0.0166\* |
|  | (0.0075) | (0.0071) |
| **Freq. TM shutdowns in respondent’s district** | -0.0480 | 0.0368 |
|  | (0.1628) | (0.1550) |
| **TM infrast. in respondent’s district (yes = 1)** | 0.7026 | 0.8202 |
|  | (0.7981) | (0.7782) |
| **Respondent lives in central district (yes = 1)** | 0.3762 | 0.0913 |
|  | (0.9423) | (0.9109) |
| **Constant** | -3.6988\*\* | -3.9079\*\* |
|  | (1.3441) | (1.2820) |
| **N** | 520 | 520 |
| **Wald X2** | 34.89\*\* | 33.38\*\*\* |

†<0.1; \* <0.5; \*\* <0 .01; \*\*\*<0.01 (two-tailed tests); standard errors in parenthesis.

**Figure C. Difference in the Discrete Predicted Probability of Having Protested by Activists’ Perceived Likelihood of Observing a TM Shutdown over the Range of Key Control Variables**

|  |  |
| --- | --- |
| **Panel A. Number of Children.** | **Panel B. Community-Improvement Committee Meetings** |
|  |  |
| **Panel C. Level of Political Awareness** | **Panel D. Ideology** |
|  |  |
| **Panel E. Age** |  |
|  |  |

Solid lines represent the point estimates of the difference in the discrete probability of joining a protest event between a hypothetical respondent that fits the *activis*t ideal-type and who at the same time believes observing an effective TM shutdown in his/her community is very likely (TM shutdowns = 3) versus a hypothetical respondent that also fits the *activis*t ideal-type but that at the same time thinks observing an effective TM shutdown in his/her community is unlikely (TM shutdowns = 0). Dashed lines represent the 95% confidence interval around these point estimates. When any of the lines (dashed or solid) crosses 0 on the y-axis, that is evidence of the absence of a significant difference in the predicted probability of joining a protest based on the perceived likelihood of observing an effective TM shutdown (unlikely vs. likely) for respondents that fit the *activist* ideal-type profile. For example, panel E (age variable) suggests that, when an (ideal-type) *activist* is about 48 years old or older, his/her predicted probability of participating in a protest is no longer affected by his/her perceived likelihood of observing an effective TM shutdown.

**Appendix A**

One plausible argument against the modeling strategy I use in this paper is related to endogeneity due to reverse causation. In other words, since the dependent variable refers to a specific self-reported behavior (having joined a protest in the past year), whereas the main independent variable refers to a perception (perceived effectiveness of TM shutdown), high levels of endogeneity might be present in the analysis because protestors’ experience in past protest events (behavior) could influence the extent to which they attribute opportunity to TM’s infrastructure (perception). To partially account for this possibility, I closely follow Cornwell and Laumann’s (2015) approach. In short, I used all the covariates originally included in the model with the best fit (see Table 2, Model 1) to fit four new regression equations in which I switched the dependent (having protested) and the key independent variable (TM shutdown). Given that the new dependent variable was ordinal (perceived likelihood of witnessing a TM shutdown: unlikely = 0; not very likely = 1; somewhat likely = 2; very likely = 3), I first estimated an ordered logistic regression.[[21]](#endnote-20) In addition, the second regression equation I specified was a binary logistic model in which the categories of the new dependent variable were collapsed into two broad groups (perceived likelihood of witnessing a TM shutdown: unlikely/very likely = 0; somewhat likely/very likely = 1). I then specified a binary logistic regression in which the categories of the new binary dependent variable discriminate between respondents who believe that seeing a TM shutdown is very likely from all other respondents (perceived likelihood of witnessing a TM shutdown: unlikely/very likely/likely = 0; very likely = 1). Finally, I also modeled the new dependent variable as continuous.

I interpret the fact that in *any* of these four models having participated in a protest event is a significant predictor of the perceived likelihood of witnessing a TM shutdown, as a piece of evidence that, *taken together with qualitative evidence presented in this paper*, supports the modeling strategy I use in this study. As Cornwell and Laumann (2015: 104) point out, this approach to detect reverse causation by no means guarantees that endogeneity is not present in the regressions models, but it does provide “a measure of assurance that the findings reported (…) are not merely a reflection of reverse causation.”

**[TABLE A ABOUT HERE]**

**Appendix B**

A valid concern related to the regression analyses based on the POS data pertains to the fact that only 5.2% of the respondents reported having protested in the year prior to the survey. Even though such a figure is indeed what one should expect in terms of the proportion of a population that participates in protest events in a given year (Lichbach 1995, 1998). After using Firth’s penalized likelihood estimation for logistic regression results remained qualitatively unchanged.

**[TABLE B ABOUT HERE]**

**Appendix C.**

**[FIGURE C ABOUT HERE]**

**Notes**

1. I greatly appreciate comments by James Kitts, Joya Misra, Millie Thayer, Suzanne Staggenborg, Janice Irvine, Miguel García, Juan-Camilo Cárdenas, Alejandra Zaldúa, Ragini Malhotra, and Kelsey Lewis on earlier versions of this draft. Special thanks to Steven Boutcher and Mónica Pachón for their role as advisors. Part of the data used in this article come from the Public Opinion Survey conducted in Bogotá by Miguel García. A summer fellowship from the Department of Sociology at UMass-Amherst and the Clifford C. Clogg Scholarship in Sociology to attend the ICPSR summer program in Quantitative methods at the University of Michigan were key in order to finish this article. An earlier version of this paper was presented at the 2017 Young Scholars in Social Movements Conference at the University of Notre Dame. All errors are my own. Please direct correspondence to Diego F. Leal at dleal@soc.umass.edu. [↑](#footnote-ref-1)
2. Two Transmilenio stations are shut down due to protests in Kennedy district (Protestas en Kennedy tienen dos estaciones de Transmilenio cerradas). *El Tiempo* (newspaper), 29 January, 2011. [↑](#endnote-ref-1)
3. Did truck drivers win? (¿Ganaron el pulso los camioneros?). *Revista* *Semana* (news magazine)*.* (4 April, 2011). [↑](#endnote-ref-2)
4. I am grateful to one of the reviewers for their help in order to achieve this general formulation of the research question. [↑](#endnote-ref-3)
5. The survey was designed by Professor Miguel Garcia at Universidad de los Andes. I participated in the design of the questionnaire and its pretests. The sampling procedure follows a multi-staged, stratified probability sample design starting with primary sampling units (districts), followed by secondary units (sectors), tertiary units (sections), and final sampling units (clusters of housing units). A single household was selected as the observation unit. The survey’s response rate was 84.29% [↑](#endnote-ref-4)
6. Given that 5.2% of the respondents reported having protested, I followed well-established procedures for logistic regressions fitted to “rare event” data (Firth 1993; King and Zeng 2001). This robustness check has been previously used in the social movements literature (McDonell, King and Soule 2015; Wang and Soule 2016). I used all the variables included in the final models (see Table 2) to develop new regressions using Firth’s penalized likelihood estimation (Firth 1993). Results are fully robust (see appendix B). [↑](#endnote-ref-5)
7. This variable was also entered as a continuous rather the ordinal covariate. Qualitatively similar results were obtained for both specifications. See Table 2, panel B. [↑](#endnote-ref-6)
8. These two variables (i.e. participation in religious services and in community-improvement committee meetings) were transformed into a continuous level of measurement. Respondents who said they never attended a given type of committee meeting or religious service were coded as 0; for respondents who report attending once or twice per year, either 1 or 2 was randomly assigned as their frequency of attendance; for participants who said they tend to attend one or twice per month, a random integer between 12 and 24 (included) was assigned; finally, respondents who report attending once a week were assigned a 52, the number of weeks in a year. Using a categorical version of these variables did not affect the main results. [↑](#endnote-ref-7)
9. Following Zaller (1992), political awareness was measured by asking interviewers to rate a given respondent’s level of political awareness after the entire interview was done. Interviewers used an ordinal scale of five levels based on a given respondent’s degree of political awareness, going from “very low” to “very high.” I then transformed it to a continuous scale that varies between 0 and 100, going from low to high levels of awareness. Using the original categorical version does not affect the results. [↑](#endnote-ref-8)
10. The variable was measured using an ordinal scale of five levels based on a given respondent’s degree of affinity/closeness to the Social Party of National Unity, going from “very far” to “very close.” I transformed it to a continuous scale that varies between 0 and 100, going from left- (i.e. very far) to right-wing individuals (i.e. very close). Using the original categorical version does not affect the results. [↑](#endnote-ref-9)
11. This data set is developed by the Colombian nongovernmental organization CINEP. It is, by far, the best source for the study of protest dynamics over time in Colombia (Archila 2003). [↑](#endnote-ref-10)
12. Central districts are: Chapinero, Santa Fé, Teusaquillo, and Candelaria. [↑](#endnote-ref-11)
13. Results are robust if this variable is entered as a count of the number of TM stations in a given district. [↑](#endnote-ref-12)
14. My *in situ* observations showed me that this is a male-dominated activity. [↑](#endnote-ref-13)
15. Results presented in table 2 do not change depending on whether or not robust standard errors adjusted for clusters representing Bogotá’s districts are used. [↑](#endnote-ref-14)
16. Unless otherwise specified, whenever the expression holding all variables constant (or a similar expression) is used, it literally means for a respondent who is average in all characteristics. This is important because in logistic models the effect of a unit change for a variable depends on the current value of both the explanatory variable under analysis and of all other covariates in the model. [↑](#endnote-ref-15)
17. The selected value for the affinity to the Social Party of National Unity corresponds to the 10th percentile of this variable. The selected values for the political awareness and community-improvement committee meetings correspond to the 90th percentile of each variable. Since the empirical value associated with the 10th percentile of the age distribution corresponds to an individual that is 20.5 years old, I selected 22 instead because that is the minimum age a respondent could be while still having had the opportunity to vote in the most recent city-wide elections. [↑](#endnote-ref-16)
18. The particular selected values for age and affinity to the Social Party of National Unity are the 90th percentile of each distribution. Similarly, the selected value for the political awareness and community-improvement committee meetings variables corresponds to the 10th percentile of each of these two variables. [↑](#endnote-ref-17)
19. See appendix C to examine which values of the control variables (community-improvement committee meetings, political awareness, ideology, number of children, and age) used in the context of the *activist* profile make the decision to protest more likely. [↑](#endnote-ref-18)
20. Rickshaw drivers protest because of poor working conditions (Bicitaxistas protestan por falta de garantías para trabajar). *El Espectador* (newspaper), 27 April, 2009. [↑](#endnote-ref-19)
21. This ordered logistic regression model violates the parallel regression assumption. [↑](#endnote-ref-20)