"Shut the Damn Thing Down!" Mass Transit Shutdowns as a Tactical Innovation in Bogotá, Colombia.

Abstract

Using a mixed methods approach, I study a novel protest tactic, mass transit shutdowns, that emerged in Bogotá following the development of a bus-based mass transit system, *Transmilenio* (TM). Specifically, I argue that the infrastructure of TM was the source of a social psychological process of opportunity attribution significantly driven by the perceived effectiveness of a novel protest tactic, namely TM shutdowns. A set of 31 semi-structured interviews conducted, amongst others, with rickshaw driver activists in Bogotá provide evidence of the link between the perceived effectiveness of this novel tactic and mobilization. Using data from a new representative survey of Bogotá's adult population conducted in 2011, I show supplementary indirect evidence that supports this same conclusion using information on respondents' perceived likelihood of observing a TM shutdown intended to make visible a community problem. This paper also illuminates the interplay of mobilizing structures, resources, biographical availability, and political attitudes with the dynamics of tactical innovation and mobilization in Bogotá.

Key Words:

Tactics, attribution of opportunity, tactical innovation, Latin America, repertoires of contention, mixed methods.

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Introduction

On January 29th 2011, a group of individuals from the Marsella neighborhood in Bogotá shut down a special lane on the main highway that links Bogotá's southwestern region to the center of the city.[1] This is a special lane because it is designed to be the reserved track through which Bogotá's bus-based massive transportation system, *Transmilenio* (TM), operates. Protestors shut down this particular TM line for almost three hours to express their opposition to the construction of a brothel in their neighborhood,[2] thus preventing almost half a million people from reaching their destinations on time.[3] Two months prior to this incident, in this exact same location, dozens of truck drivers shut TM down during four days, using their trucks as a blockade to dispute newly proposed national freight-related regulations.[4] The examples above are not isolated incidents, in fact, a wide range of groups in Bogotá have shut TM down in order to voice their demands. In this paper, I draw from original evidence to show how TM's infrastructure has been conceptualized and used as a resource by activists in Bogotá to develop a tactical innovation: TM shutdowns.

I address the advent of TM shutdowns as the result of a social psychological process through which activists continuously *attribute opportunity* (McAdam, Tarrow, and Tilly 2001) to the infrastructure of TM because of the *perceived* effectiveness of TM shutdowns to disrupt the happenings of the city. In this context, I seek to answer the following research question: Do protestors in Bogotá attribute opportunity to TM's infrastructure and, if so, in which way this social psychological process takes place? In a nutshell, I study the emergence of an objective opportunity (the implementation of TM as a mass transportation system), the individual-level perception of that opportunity (the process of opportunity attribution vis-à-vis TM's infrastructure), and the use of a novel tactic that capitalizes on that same opportunity (TM shutdowns). Importantly, this paper is about documenting the advent and use of TM shutdowns as a novel protest tactic, not about the actual effectiveness of this tactic.

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[1] 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.
[2] TM "busways" are especially reserved lanes for TM buses. A TM busway is similar to the lines in a regular subway system. In the New York City subway, for example, the 7 flushing line connects the boroughs of Queens and Manhattan.
[3] According to official sources, on average, 153,478 people per hour use this particular TM line, see www.transmilenio.gov.co.
[4] Did truck drivers win? (¿Ganaron el pulso los camioneros?). *Revista Semana* (news magazine). (4 April, 2011).

From a theoretical point of view, I situate the study of TM shutdowns in the context of the literature that finds the *perceived* effectiveness of protest tactics to be a key incentive for mobilization in general, and the diffusion of tactics in particular (Lichbach 1998; Soule 1997; Francisco 2010; Tilly 1995; Andrews and Biggs 2006; Biggs 2013). As Soule (1997: 872) points out: "Tilly has argued that tactical innovations which are perceived as effective are likely to be imitated by other actors, thus to diffuse between social movement organizations." Activists' bounded-rationality is one of the key elements that drives protestors' tactical choices (Walker, Martin, and McCarthy 2008), as well as their tendency to capitalize on protest tactics they *perceive* as effective (Meyer and Staggenborg 2012; Taylor, Kimport, Van Dyke, and Andersen 2009; Ganz 2000).[5]

In the literature, the relationship between the *perceived* effectiveness of protest tactics and mobilization has been theorized (Lichbach 1998) and tested at different levels of aggregation (Soule 1997; Wang and Soule 2012; Francisco 2010). This investigation, however, constitutes a novel extension of this line of work because it explores this same relationship at the *individual level* based on newly available data and an understudied empirical context. More precisely, I provide a concrete example of how activists in Bogotá attribute opportunity to, and perceive the effectiveness of, a concrete tactical innovation. As such, this work is valuable because documenting and assessing the perceived effectiveness of a particular protest tactic tends to be intrinsically difficult for both activists and academics (Soule 1999; Biggs 2013). I seek to provide new information based on individual-level survey data and a concrete qualitative case study to help fill this gap.

The paper is organized as follows. First, I provide a detailed account as to why TM is particularly vulnerable to shutdowns, thus making this a feasible tactic in the first place. Second, I develop a theoretical framework that connects the literatures on opportunity attribution, tactical innovation, and mobilization focusing on an individual-level perspective. Third, I outline the mixed methods research design of the paper, and analyze the qualitative and quantitative data. Finally, I conclude by pointing out how the substantial expansion of mass transportation systems similar to TM throughout Colombia, Latin America, and the developing world (Campo 2010),

[5] The invention, use, and diffusion of a given tactic not only depends on its effectiveness. In fact, feasibility and legitimacy also play an important role in this regard (Biggs 2013).

could significantly increase the modularity of their shutdowns as a protest tactic. I also discuss how the use of TM shutdowns interacts with the mobilization structures of a given locality, the resources and biographical availability of protestors, and their political attitudes.

TM Shutdowns as a Feasible Protest Tactic.

The first TM shutdown in Colombia took place in April 2001, only four months after the first TM line was opened to the public in December of 2000. Colombian authorities did, of course, react to the use of TM shutdowns by increasingly preventing them from happening. From a theoretical point of view, a tactical innovation is usually neutralized with a response (i.e. a tactical adaptation) from the opponents and/or authorities: "In chess-like fashion, movement opponents can be expected, through effective tactical adaptation, to neutralize a new tactic, thereby reinstituting the power disparity between themselves and the challengers." (McAdam 1983: 735). Indeed, the authorities' tactical adaption to TM shutdowns took its final shape in 2012 when the Colombian Constitutional Court ruled in favor of the constitutionality of a newly enacted law. This law made blocking massive transportation systems like TM, and road blockades in general, a felony (Decision C-742/12). This piece of legislation was part of a larger reform to the penal system developed by the President of Colombia. The law was introduced to Congress in 2010 and was enacted in 2011. Therefore, the use of TM shutdowns was highly feasible before the implementation of this law, that is, between 2000-2001 (TM implementation) and 2010-2011 (law enactment). Once this law was passed, taking part in TM shutdowns became a major risk, thus ameliorating the rate at which TM shutdowns occurred, since the Police were now allowed to sanction activists engaging in these newly criminalized actions, even if the protestors were high school students.[6]

It is imperative to mention that even though TM is by far the most complex transportation system of its type in the world (Campo 2010), it is not unique to Bogotá. TM belongs to a special family of transportation solutions called Bus Rapid Transport Systems (BRTS) originated in Curitiba, Brazil. The distinctive feature of these transportation systems is that they operate "through the provision of segregated right-of-way infrastructure" (Wright and Hook 2007: 11;

[6] Because of TM shutdowns, underage students will have to pay up to 42 Colombian pesos in fines (Por ataques a Transmilenio, menores pagarán multas de hasta $42 millones de pesos). *El Espectador* (newspaper), 15 March, 2012

Danaher, Blume, Levinson, and Zimmerman 2007). In short, BRTS are bus-based systems in which public buses transit passengers through reserved lanes of existing highways. Notably, as far as I know, TM was the first BRTS in the world in which systematic shutdowns were used as a way of protesting for issues not related to the quality of the transportation service itself. In this sense, TM shutdowns as a protest tactic, and *BRTS shutdowns* more generally, were developed in Bogotá.

The particular features of BRTS enables even small numbers of activists to cause massive levels of disruption. In the case of TM, this is possible because TM lines are bound by yellow cement blocks that are only 15 centimeters high. While these cement blocks allow civilians to easily distinguish between regular lanes and TM lanes on a given highway, they also create a massive transportation system that is particularly easy to block. In other words, TM shutdowns are a feasible protest tactic because, unlike most massive transportation systems, TM lines are subject to all the restrictions associated with regular avenues (e.g. accessible by foot, constrained by traffic lights or pedestrian crossings) (see Figure 1).

[FIGURE 1 ABOUT HERE]

TM shutdowns allow protestors to potentially attain unprecedented levels of visibility and cause massive disruption because, on an average day, TM transports over 2.6 million people throughout Bogotá.[7] This massive influx of costumers is due to the fact that TM is the only mass transportation system in Bogotá. Furthermore, TM buses are unable to circumvent protest blockades by using secondary avenues, further increasing the disruptive potential of the shutdowns. Indeed, as noted by numerous articles in the Colombian press, the fact that TM lines are designed to have only one —or at a maximum, two— lanes with no access to secondary corridors, enables rather small groups of people to stand up in front of a TM bus and, literally, block part of the system.[8] All these features (absence of access to secondary corridors, absence of other mass transportation systems, easy and direct access by foot to TM lines, small number of protestors needed to shut down TM) make TM a likely platform for disrupting the regular happenings of the city, and therefore, an ideal mobilization resource. In sum, I argue that TM

[7] Ten bad things about Transmilenio (Los 10 lunares de Transmilenio). *Revista Semana* (news magazine), 14 February, 2014.
[8] Transmilenio: a protest resource. (Transmilenio: vehículo de protesta). *Revista Semana* (news magazine), 19 November, 2011.

shutdowns draw their *perceived* effectiveness from their vast disruptive potential; such potential is especially evident when compared to the level of disruption likely to emerge from customary protest tactics like traditional road blockades.

Theoretical Framework

My aim in this section is to contextualize TM shutdowns in the literature on tactical innovation. Broadly speaking, research on mobilization tends to follow two tracks: on the one hand, scholars interested in individual mobilization have focused on micro-level explanatory factors, including the role of biographical availability (Corrigall-Brown 2012), personal networks (Snow, Zurcher and Ekland-Olson 1980), or political attitudes and behaviors (Suchssman and Soule 2005). On the other hand, scholars interested in meso-level explanatory factors tend to focus on the role of political opportunities (Meyer and Minkoff 2004), organizational networks (McAdam and Fernandez 1990; Kitts 2000), or resources (McCarthy and Zald 1977). Rarely do scholars attempt to integrate these two levels of analysis, despite theoretical calls to do so (McAdam, Tarrow and Tilly 2001).

In this paper, my data allow me to bridge these two research streams by paying particular attention to activists' subjective attribution of opportunity vis-à-vis TM's infrastructure. This analysis, therefore, is in line with the literature that seeks to link activists' perceptions and protest behavior to externally-generated changes in the environment in general, and to changes in the structure of *political opportunities* in particular (Gamson and Meyer 1996; Kriesi 2004).

The concept of political opportunities refers to the structural features of the larger environment that constrain or facilitate the emergence and development of social movements (Tarrow 1994; Eisinger 1973; Meyer 2004; Meyer and Minkoff 2004; for a critique see Goodwin and Jaspers 1999). Some scholars suggest that objective opportunities cannot affect mobilization without individuals attributing importance to those opportunities (Gamson and Meyer 1996; McAdam et al. 2001; Boutcher 2011). In this regard, the concept of *attribution of opportunity* denotes a social psychological mechanism that allows activists to perceive, through their various individual and collective identities (as neighbors, workers, students, etc.), the objective changes that take place in the environment (McAdam et al. 2001). This paper echoes McAdam and colleagues' theoretical contributions. In particular, I show how activists' conceptualization of

TM's infrastructure as an opportunity, based on their perceptions of TM shutdowns as an effective protest tactic, was key for this protest tactic to develop.

There is not a simple linear causal path between tactics' perceived effectiveness, changing political opportunities, tactical innovation, and mobilization, however. Indeed, "[p]rotesters stumble upon new tactics, just as they stumble upon political opportunities (Koopmans 2005: 26). 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." (Biggs 2013: 409). This paper seeks to contribute to the understanding of this intricacies.

By definition, the use and diffusion of protest tactics, and its perceived (in)effectiveness, entails a learning process which does not occur in a social vacuum (Ganz 2000, Koopmans 2005). Indeed, not only political opportunities need to be taken into account, but also cultural contexts, targets, countermovements, networks of collaboration among Social Movement Organizations (SMOs), repression, news media, effectiveness, and even bystanders, exert an impact on tactical innovations and their diffusion (Meyer and Staggenborg 2012; Wang and Soule 2012; Biggs 2013).

Protest tactics are not only determined (i.e. caused) by the array of factors enumerated in the paragraph above, however. Tactics can also have a generative potential, that is, they can partially determine the political context in which they emerge (Rojas 2006). For example, Taylor et al. (2009) show that the set of limited tactics that comprise a specific *repertoire of contention*[9] (Tilly 1995) can have a "movement-building function" because they help develop collective identity. In this regard, an excellent historic example is related to the development of the barricade as a tactical innovation that also reinforced collective identity and bonds of solidarity amongst rebels in the Paris Commune (Traugott 1995). Importantly, Traugott reminds us that repertoires of contention, and the particular tactics they contain, are "circumscribed both by prior experience and by material, organizational, and *conceptual* resources." (Traugott 1995: 43, emphasis is mine). Indeed, in this paper I focus on a key individual-level (i.e. 'conceptual') mobilization resource*:* the *perceived* effectiveness of protest tactics, understood as a powerful

[9] Repertoires of contention are a limited set of protest tactics "that are learned, shared, and acted out through a relatively deliberate process of choice" (Tilly 1995).

incentive for mobilization in general, and the use and diffusion of tactics in particular (Soule 1997).

In the following paragraphs I will review several factors that have been used to explain activists' mobilization. I do this in order to place the individual-level perceived effectiveness of concrete protest tactics as an important explanatory factor that weighs into the individual's decision to choose among competing tactics in particular, and her decision to mobilize more generally.

Incorporating the Broad Context of the Decision to Mobilize.

Mobilizing Structures and Community Infrastructure

Social movement scholars have shown that activists mobilize in a social context populated by networks, groups, and organizations that can facilitate collective action (Snow, Zurcher and Ekland-Olson 1980; DiGrazia 2014; for a critique see Kitts 2000). Activists' attribution of opportunity is no exception. In fact, protestors attribute opportunity in the context of *mobilizing structures* such as SMOs and interpersonal networks (McAdam et al. 2001). Similarly, McAdam (1983) argues that tactical innovation requires a community, and its mobilizing structures, to emerge and diffuse (see also McCammon 2003; Ganz 2000). I expect both opportunity attribution, and the use and diffusion of tactics perceived as relatively effective, to be affected by the particular mobilizing structures present in a given space. Recognizing this, my analyses will rely on the concept of *community infrastructure*, which refers to the set of mobilizing structures that can eventually be activated by a group of protestors in a concrete locality (Almeida 2012).

Physical Infrastructure

As suggested by Smelser (1963), the physical infrastructure(s) existing in a given society (e.g. transportation systems, communication systems) influence the pace of insurgency because they serve "as constraints on, or facilitators of, the use of resources for social movement purposes." (McCarthy and Zald 1977: 1225). Therefore, analysis of the process of opportunity attribution and the use and diffusion of novel tactics should systematically consider, not only the community infrastructure of a given locality, but also its physical infrastructure.

The role played by physical infrastructure, and particularly by transportation infrastructure, is said to be especially important for understanding mobilization in the global South (Boudreau 1996, Almeida 2012). For example, Almeida's (2012) conceptualization of

transportation infrastructure as a resource for collective action proves critical for understanding social movement campaigns in Central America. In general, the literature on Latin American social movements consistently suggests that transportation infrastructure is a vital asset for collective contention (Archila 2003; Auyero 2006; Silva 2009). Therefore, the fact that activists in a Latin American metropolis like Bogotá perceive (and use) TM shutdowns as a feasible and relatively effective tactic seems particularly plausible.

Biographical Availability

Potential activists face constraints associated with their daily lives and personal characteristics that can make them more or less available for protesting (Corrigall-Brown, 2012). In general, scholars have found that individuals who do not have children, are young, unemployed, or have flexible schedules are more prone to protest (Beyerlein and Hipp 2006; DiGrazia 2014; for a critique see Nepstand and Smith 1999).

Given that the attribution of opportunity vis-à-vis TM's infrastructure and the perception of TM shutdowns as a relatively effective tactic are, to an important extent, subjective (i.e. individual-level) processes, they could be affected by the biographical availability of each potential protestor. Indeed, as I will discuss bellow, a key finding in the context of the case study is that the flexibility in the work schedules of Bogotá's rickshaw drivers allowed them protest.

Resources

Potential activists not only face constraints related to their biographical availability, they also differ in terms of the resources at their disposal. From an individual-level perspective, resources in the form of education or civic skills might make mobilization more likely (Brady, Verba, Schlozman 1995). From a macro-level perspective, group (e.g. class or race) heterogeneity in resources can also explain differences in protest participation amongst segments of a given society (Verba, Scholzman, Brady, Nie 1993; Verba, Scholzman and Brady 1999). I argue that perceiving a tactic as relatively effective is partially related to the resources of a given individual. For example, skills in the form of past experience in collective contention may help explain why some individuals attribute opportunities or adopt innovative protest tactics when others do not.

Political Engagement: Political Attitudes and Behaviors

The literature on the relationships between mobilization on the one hand, and political attitudes and behaviors on the other, is rich and broad (Verba, Burns, and Scholzman 1997; Suchssman and Soule 2005). On the attitudinal side, ideology and political awareness (Zaller 1992) are

examples of factors that have been found to be correlated with mobilization. As with resources and biographical availability, I argue that political engagement (both attitudinal and behavioral) is part of the context in which opportunity attribution and the use of tactics perceived as effective operate.

In summary, both opportunity attribution and tactical innovation occur in a broad (physical/spatial, social, and personal) context. In this paper, therefore, several factors will represent the setting in which the individual-level perceptions vis-à-vis novel tactics and mobilization are shaped; a context composed by explanatory factors typically encountered in the social movement literature (e.g. biographical availability, resources, and political engagement).

Data and Methods: Qualitative Section.

I designed a case study to bring me as close as possible to an understanding of why and how activists in Bogotá attribute opportunity to TM's infrastructure and perceive TM shutdowns as an effective tactic. Protest event data from the *Social Struggles Database* (SSDB) (Archila 2002; 2003)[10] show that between 1991 and 2010 Barrios Unidos and Kennedy were the two districts in which the use of TM shutdowns was most frequent.

The SSDB 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 Bonito station. Given that the distance between these two TM stations is approximately 700 meters, this particular neighborhood, usually referred to as Carimagua, was an ideal site.

From July to September 2012 I conducted fieldwork in Carimagua three days per week. Guided by the principle of saturation (Small 2009), I conducted 31 semi-structured interviews. Eight interviews were conducted in three different residential complexes to gain basic insight into the happenings of Carimagua. In fact, I quickly learnt from these interviews that rickshaw drivers in this neighborhood had shut down TM several times. I therefore chose to focus on rickshaw drivers, conducting interviews with 22 of them. Interviews were conducted while rickshaw drivers were working and were therefore relatively short on average (19.3 minutes). All but one rickshaw driver were young men and none of the respondents had a high school

[10] This data base is developed since 1975 by the Colombian nongovernmental organization CINEP (Centro de Investigación y Educación Popular). It is, by far, the best source for the study of protest dynamics over time in Colombia (Velasco 2006).

diploma.[11] 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 with pseudonyms, I did not alter the name of the neighborhood.

Data and Methods: Quantitative Section.

In order to supplement the qualitative analysis, I drew from Bogotá's *Public Opinion Survey* (POS). This survey consists of a statistically representative sample of Bogotá's non-institutionalized adult population.[12] It was conducted in 2011 and its unit of analysis is the individual (N = 520). For the purpose of this paper, the dependent variable is an individual's response to the question: "*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 the cross-sectional nature of the data, all statistical models used to predict respondents' protest behavior are binary logistic regression equations estimated by maximum likelihood.[13]

A crucial and unique feature of this dataset is that it incorporates a variable related to respondents' perceived likelihood of observing people resorting to a TM shutdown in order to make visible and solve a hypothetical problem in their community. This variable, which I call *TM shutdown*, is based on the following question: *"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 bus station to make their voices heard?* Possible answers included "*very likely*", "*somewhat likely*", "*not very likely*", and "*unlikely*."

I recoded this variable using an ordinal scale ranging from 0 to 3, moving from less to more likely (see table 1). "Unlikely" was chosen as the reference category in all the models in which the variable TM shutdowns was used as a categorical covariate (see appendix A, models

[11] My *in situ* observations showed me that is a highly male-dominated activity.

[12] This survey was designed by Professor Miguel Garcia at Universidad de los Andes, Bogotá. I participated in the design of the questionnaire and its pretest on the field. 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 then final sampling units (clusters of housing units or *manzanas*). In each housing unit a single household was selected as the observation unit.

[13] All results remain qualitatively unchanged if robust standard errors adjusted for clusters representing Bogotá's districts are used.

A.1 to A.4). I also included a model in which the perceived likelihood of observing a TM shutdown was operationalized as a continuous variable, not as a categorical one (see appendix A, model A.5). Respondents that perceive TM shutdowns as a likely solution to help address a problem in their community are expected to be the same as those who report having joined a protest event. The value of this statistical exercise is, therefore, to complement the qualitative evidence since many factors besides the perceived effectiveness of TM shutdowns (e.g. resources, biographical availability, and community infrastructure) are indeed found to be relevant for explaining mobilization in the context of the case study.

One plausible argument against this modeling strategy is related to endogeneity and time-order. In other words, since the dependent variable refers to a specific behavior (having joined a protest), whereas the main independent variable refers to an attitude (perceived likelihood of observing a TM shutdown intended to make visible a problem in the local community), 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 (attitude).

To partially account for this possibility, in models shown in appendix B, I used all the covariates originally included in the model with the best fit in the context of appendix A (model A.4) to fit four new regression equations. In these four new models the dependent variable was respondents' perceived likelihood of witnessing a TM shutdown, whereas having joined a protest event was included as the key explanatory variable. 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 by maximum likelihood (appendix B, model B.1).[14] 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) (appendix B, model B.2). I also specified a binary logistic regression in which the categories of the new binary dependent variable discriminate between respondents who believe that observing a TM shutdown is very likely from all other respondents (perceived likelihood of witnessing a TM shutdown:

[14] This ordered logistic regression model violates the parallel regression assumption.

unlikely/very likely/likely = 0; very likely = 1) (appendix B, model B.3). Finally, I fitted a linear regression using OLS in order to predict the perceived likelihood of witnessing a TM shutdown operationalized as a continuous variable (appendix B, model B.4).

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 tenuous piece of evidence in favor of one possible interpretation: the association between the variable TM shutdown and the participation in a protest event appears to be more robust if the variable TM shutdown is used as an explanatory variable, not the other way around. In the qualitative analysis section I will provide further evidence of how relevant information regarding TM shutdowns becomes available to actors and how this information is correlated to actual TM shutdowns taking place. Therefore, taken together, the evidence supports the basic assumption according to which people's perceptions of reality (e.g. attribution of opportunity vis-à-vis TM) can explain their behavior and decisions (e.g. using a novel tactic or protesting).

Importantly, my aim in terms of the statistical modeling in this paper is not to establish causality —a task doomed since the very onset because of the cross-sectional nature of the data. In this context, instead of directly interpreting the coefficients of the regressions models, I constructed and interpreted predicted probabilities of protesting for ideal types of protestors to whom I assign different believes (i.e. different answers) about how likely is it to observe a TM shutdown intended to make visible a problem in their community. The analysis of predicted probabilities is recommended and widely used in the literature of non-linear models (Long 1997; Long and Freese 2001; Lundquist and Lin 2015). In sum, even though disentangling the latent issues of endogeneity and time-order present in the quantitative analysis is beyond the scope of this paper, I use the regression results from the model with the best fit to calculate predicted probabilities of protesting for ideal types of activists as a way to supplement the findings of the qualitative section. I do this by taking advantage of the information contained in the POS survey on the relationship between TM shutdowns and protest behavior, evidence that is unique to this paper and that supports the use of the variable TM shutdowns as an explanatory variable.

A second argument against using regression analyses based on the POS survey 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; Rodríguez-Raga and Seligson 2012), a legitimate question about the robustness of the results remain. As recommended in the literature on logistic regression for rare event data (Firth 1993; King and Zeng 2001; Gao and Shen 2007), I use all the variables originally included in the model with the best fit (model A.4), to develop new regression models using Firth's penalized likelihood estimation for logistic regression. I do this in order to address possible *instabilities* (Agresti 2013) in the results due to the nature of the dependent variable. After using this new estimation procedure results remained qualitatively unchanged. This is true independently of the way in which the variable TM shutdowns was operationalized (see appendix C, model C.1 —TM categorical— and C.2 —TM continuous—)

It should be noted that all statistical models in this article include a control for the number of TM shutdowns in each respondent's district during the year prior to the survey. This variable is based on information from the *Social Struggles Datanase* (Archila 2002; 2003). The inclusion of this control variable, in addition to the fact that the variable TM shutdowns asks about the perceived likelihood of observing a TM shutdown as a tactic to *seek a solution* to a collective problem by making it visible, gives me confidence that the TM variable is not a mere proxy for residing in a location where TM shutdowns recently occurred a lot. All models also include a binary control variable to distinguish between districts with at least one TM station and districts with none of them (TM = 1; No TM = 0).[15] This covariate allows me to reduce the chances of reporting the existence of a TM-triggered opportunity attribution process when, in actuality, the mere availability of TM's infrastructure might operate as the real mechanism predicting mobilization.

[TABLE 1 ABOUT HERE]

I also generated a dummy variable for central districts (central = 1; non-central = 0) that is included in all statistical models. This variable groups together the four districts historically associated with high frequencies of protest in Bogotá (see Figure 2). From a theoretical standpoint, taking into account Bogotá's central districts is a way to control for what Almeida (2012) designates as *administrative infrastructure* and *higher educational infrastructure* because central districts in Bogotá contain both the campuses of the main Colombian universities, as well

[15] I sensitivity analyses, I also used a continuous version of this variable: the number of TM stations per district per km^2 to confirm that results did not change.

as the main city and national government buildings. This is critical for empirical analysis of collective contention in the global South, where administrative (Boudreau 1996, Inclán 2008) and higher educational infrastructure (Altbatch 1984) are highly correlated with protest.

[FIGURE 2 ABOUT HERE]

Once the robustness checks have been sufficiently explained, I will discuss the nature of the theoretically-driven control variables used in this paper. To account for the community infrastructure in which opportunity attribution and tactical innovation emerge, I selected two control variables that are related to the level of participation in potential mobilizing structures. I conceptualize these variables as proxies for respondents' level of engagement in their community infrastructure: attending community-improvement committee meetings and attending religious services —which is highly likely to occur at the local community church.[16] I expect that attending the meetings held by these organizations will be associated with respondents' level of collective action. In the Colombian context, however, I anticipate that attending religious services will be negatively associated with protest behavior, while I expect the opposite to be true for those attending community-improvement committee meetings (Sudarsky 2001; 2007).[17]

To capture resources and biographical availability, I employed four controls: years of formal schooling,[18] gender (man = 1), age,[19] and number of children.[20] In general, I expect personal constraints related to biographical availability to discourage mobilization. Regarding

[16] Even though these variables can also be considered as proxies of *structural availability* (Schussman and Soule 2005), I prefer to use the *infrastructural* framework (Almeida 2012) to explain mobilization outcomes. I will expand on this discussion in the context of the qualitative results where I directly observe the influence of community *infrastructure* in the form of concrete mobilization structures.

[17] In the context of an overwhelmingly catholic country like Colombia, Sudarsky (2001; 2007) finds a negative relationship between attendance to religious services and mobilization. Different results have been found in the context of protestant respondents in the United States, however (McVeigh and Sikkink 2001). These two variables (attending: religious services and community-improvement committee meetings), were transformed into a continuous level of measurement (see table 1). In order to do this transformation, random numbers were generated to fill in respondents' self-declared frequency of attendance (never, once or twice a year, once or twice a month, once a week). So, for respondents who said they never attended community-improvement committees meetings, their frequency of attendance was 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, for those respondents who report attending once a week, the number assigned was 52, which is the number of weeks in a year. As part of the sensitivity analyses, I also used the categorical version of this variable to confirm that results did not change.

[18] As part of the sensitivity analyses, I also used a categorical version of this variable (high school diploma or less = 0; college education = 1; postgraduate education = 2) to confirm that results did not change.

[19] A squared version of this variable was not found to be significant.

[20] As part of the sensitivity analyses, I also used a binary version of this variable (presence of children = 1; otherwise = 0) to confirm that results did not change.

age, for example, some studies suggest that youth in Latin America tend to participate more in street protests than the elderly (Seligson, Smith, and Zechmeister 2012).

Lastly, a set of covariates associated with political attitudes are also part of the controls. Here I included two covariates: level of political awareness (Zaller 1992)[21] and level of affinity to the politically conservative Social Party of National Unity, the latter being treated as a proxy for political ideology in the Colombian context (Rodríguez-Raga and Seligson 2012).[22] Politically aware and left-leaning individuals are consistently associated with higher levels of participation in protest events in Colombia (Rodríguez-Raga and Seligson 2012)

Results.

TM Shutdowns in Kennedy District. The Case of Carimagua.

As discussed earlier, I developed a case study based on interview data in order to understand how a tactical innovation, and its perceived effectiveness to solve a common problem, develop on the ground. In this context, the initial interviews I conducted made clear that the main shared problem for the inhabitants of Carimagua was related to public transportation. Nevertheless, TM itself was not the problem. In fact, participants frequently mentioned that their main concern was the lack of public transportation to go from TM stations to their houses and vice versa.

According to all the residents of Carimagua I interviewed, the only public and legal transportation solution, the so-called yellow buses, were expensive and usually unable to take them from the nearest TM station to their homes. In this context, hundreds of pedal-powered rickshaws and dozens of small white vans emerged as informal, flexible, and cheap transportation solutions to the inhabitants of Carimagua. In the words of GT and BV:

> **GT**: Public transportation here is very bad! In my case, every day I need to go to 26 street [downtown], so to take the [yellow] bus in the morning I must cross the canal, which is extremely unsafe (…) When I am not able to take the bus I take a white van to get to Cali Avenue. In the afternoons it is exactly the same story. (GT, inhabitant of Carimagua).

[21] Following Zaller's findings (1992), political awareness was measured by asking interviewers a specific question after each interview: "Please rate the respondent's level of political awareness." Possible answers included "Very high", "High", "Neither high nor low", "Low", and "Very low." This variable was recodified from 0 to100, from lower to higher levels of political awareness.

[22] Rodríguez-Raga and Seligson (2012) show that respondents who identify with this party are, on average, the most ideologically conservative people in Colombia.

BV: Well, the white vans and the rickshaw drivers help one a lot. Is one supposed to walk between here and Cali Avenue? One would need to walk like 20 blocks… So, one would spend 20 or 30 minutes walking. (BV, inhabitant of Carimagua).

This situation forged a highly contentious environment, which is part of the reason why rickshaw drivers often carried out TM shutdowns. More specifically, three different, albeit highly intertwined, conflict layers comprise the aforementioned contentious environment. In the first layer, yellow bus drivers and white van drivers are protagonists. Bus drivers believe they are entitled to block the free transit of white vans in Carimagua because buses are legal while vans are not. CB, a white van driver, succinctly refers to this situation:

Interviewer: How is your relationship with yellow bus drivers?
CB: 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.
Interviewer: What do you mean by blocking you [*cerradas*]?
CB: I mean when they block you because of passengers…when they block you… like to prevent you from picking-up new passengers. (CB, white van driver in Carimagua)

[FIGURE 3 ABOUT HERE]

The second layer of conflict is characterized by white van drivers as victimizers and rickshaw drivers as victims. Given that both actors operate informally, their fights are more personal and violent. A participant even mentioned that some rickshaw drivers have been killed as a result of this rivalry. The third conflict layer is defined by organized and unorganized rickshaw drivers as main actors. In this context, rickshaw drivers that are members of rickshaw associations constantly intimidate non-members. The latter do so by taking advantage of the informal nature of this business, serving the patrons of established rickshaw drivers. Struggles in this layer are also highly personal and violent. BT1 and BT2, both rickshaw drivers, commented on these two layers of conflict:

Interviewer: How is your relationship with white van drivers?
BT1: White van drivers no… I mean, one is just working here, one is not involved with them.

Interviewer: But, what do they do to you guys?
BT1: They block us, they are always doing the same… (BT1, unorganized rickshaw driver in Carimagua)

Interviewer: Is this rickshaw affiliated with an organization?
BT2: Yes, it is.
Interviewer: What is the name of the organization?
BT2: ASOTRICCOL, *Asociación de Tricimóviles Comunitarios de Colombia.*
Interviewer: What are the advantages of being a member of this association?
BT2: The good thing about it is that no one messes with you. I mean, no one messes with you on the route that you are working on, you just come and work and that is it. If you are not a member it is complicated because then the other [i.e. organized] rickshaw drivers just come and beat you up and slash your tires. (BT2, organized rickshaw driver in Carimagua).

All organized and unorganized rickshaw drivers I interviewed were fully aware of the importance of accessing legal licenses to operate in Carimagua. This was an outcome of their fights with white van drivers and also because the Police were especially inflexible with them. In fact, several inhabitants of Carimagua also mentioned Police actions towards rickshaw drivers as a reason driving them to protest. It is in this context that narratives of TM shutdowns emerged. According to DT, an inhabitant of Carimagua:

Interviewer: Do you remember people in this neighborhood having joined a public protest?
DT: Yes, they recently have done that… more than two times.
Interviewer: Do you remember what happened?
DT: Last time the protest was related to a three day strike carried out by truck drivers in Cali Avenue. Later on the rickshaw drivers of this area decided to join the strike.
Interviewer: The rickshaw drivers?
DT: Yes, the rickshaw drivers, and before that, like two months before, 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. (DT, inhabitant of Carimagua).

When I interviewed rickshaw drivers they were not always willing to immediately acknowledge their participation in TM shutdowns. This was the case because rickshaw drivers' primary shared goal is to obtain a city government granted license to work.

BT3 described a legal protest that rickshaw drivers participated in during April 2009. The demonstration was called for by a city-wide confederation of rickshaw drivers, an organization that brings together local associations such as the previously mentioned ASOTRICCOL. I corroborated this information based on articles published in the national press.[23] According to a note in Colombia's second most prominent newspaper, at least 1,000 rickshaw drivers participated in this demonstration, which took place in Plaza de Bolívar, where the city hall is located. The purpose of this march was to pressure the city government to grant rickshaw drivers a license to work. In this 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 skill, and time availability emerge as important resources for mobilization:

> **Interviewer**: How was the march possible?
> **BT3**: 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?
> **BT3**: Most of us, I'm pretty sure…. It was 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 work schedule… we own our time, if we want to protest we can do it, cops (*tombos*) permitting. (BT3, rickshaw driver leader).

Much later in the conversation, BT3 mentioned that rickshaw drivers have also shut down TM. BT3's words show that rickshaw drivers decided to shut down TM not only because of the availability of this particular infrastructure, but because the perceived effectiveness of the tactic:

[23] Rickshaw drivers protest because of poor work conditions (Bicitaxis protestan por falta de garantías para trabajar). *El Espectador* (newspaper), 27 April, 2009.

Interviewer: Why is that rickshaw drivers shut down Transmilenio?

BT3: It is said that to gain government's attention, people have to go there directly to Transmilenio, to shut down Transmilenio, 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, Transmilenio is the most effective method. (BT3, rickshaw driver leader).

From this statement it is clear that rickshaw drivers do attribute opportunity to TM's infrastructure because of the perceived effectiveness associated with TM shutdowns. BT3's account suggest a tension between the use of TM shutdowns as a protest tactic and its effectiveness. In other words, although BT3's choice of language indicates a desire to disassociate from the practice of shutting down TM, his words do show how the perceived effectiveness of TM shutdowns, and the consequent attribution of opportunity, was greater than the perceived thread of partaking in such a disruptive action.

In the conversation with BT3 it was also clear that while the legal demonstration he initially mentioned was indeed covered by the media, TM shutdowns also tend to be covered even when only a reduced number of rickshaw drivers carry out the TM shutdown. It is partially for this reason that rickshaw drivers perceive TM shutdowns a highly effective tactic. This statement is supported by DR, a Carimigua inhabitant I interviewed in the field during a TM shutdown organized in protest of city government policies on urban planning:

Interviewer: Why shutting TM down?

DR: The media is going to arrive here, this kind of highways [TM busways] are 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! That is our way to influence whatever is going up there [at the national level]

Interviewer: Is this your first time doing this?

DR: It is, indeed. But, have you heard about the mess rickshaw drivers have done here by shutting down TM? Those people are amazing! (DR, activist protesting in Carimagua).

BT3 and DR's accounts support the main conclusion derived from this case study: When facing collective problems, protestors in Carimagua do conceptualize and use TM shutdowns as an effective tactic to make their voices heard, thus attributing opportunity to TM's infrastructure.

They also seem to do so because concrete past experience, not only because of their bounded-rational expectations. In this regard, the data suggest that protestors in Carimagua not only perceive TM shutdown as potentially effective *ex ante*; in fact, a demonstration effect based on past TM shutdowns also seems to drive the perceived effectiveness of TM shutdowns. This case study therefore constitutes a key piece of evidence that supports the hypothesized relationship between the attribution of opportunity spurred by TM's infrastructure due to the perceived effectiveness of TM shutdowns on the one hand, and the use of TM shutdown as a tactical innovation, and protesting more generally, on the other.

The Perceived Likelihood of Observing a TM Shutdown: Predicted Probabilities of Protesting for Ideal Types of Protestors in Bogotá.

As shown in appendix A, the best fitting model based on the performed likelihood-ratio tests (model A.4) shows a positive and significant association between the perceived likelihood of observing a TM shutdown intended to make visible a community problem on the one hand, and having participated in a protest event in Bogotá on the other. This result is robust to different (restricted) equations and different specification of the TM shutdown variable (see appendix A).

In this context, table 2 presents the predicted probabilities of joining a protest after controlling for all covariates in model A.4. As discussed earlier, these controls were included because they are thought to capture key factors that help explain why potential activists might mobilize. The value of this statistical exercise is, therefore, to complement the qualitative evidence analyzed above since many factors besides the perceived effectiveness of TM shutdowns (e.g. resources, biographical availability, community infrastructure) were indeed found to be important in explaining protest behavior in Carimagua.

Based on the results obtained in model A.4, 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.[24] 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.[25] Importantly, both ideal types (*activist* and *non-activist*) are agnostic about the perceived likelihood of observing a TM shutdown intended to make visible a problem in their community. In order to model this, I assigned the modal response of this variable (*not very likely*) to both ideal types (see table 1).

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 response regarding the TM shutdown variable. More precisely, predicted probabilities of joining a protest were also computed for *non-activists* who think it is *unlikely* to observe a TM shutdown in their community versus *activists* who think it is *very likely*. In order to compare the predicted probabilities across all four profiles, all remaining continuous and categorical control variables included in model A.4 were held constant at their mean and mode, respectively.

As panel B in table 2 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 broader context of the decision to mobilize. In fact, as evident on panel A in table 2, when the attribution of opportunity associated with TM's infrastructure is held constant, an activist has a

[24] The particular selected value for the affinity to the Social Party of National Unity corresponds to the 10th percentile of this variable. Similarly, the selected value for the political awareness and community-improvement committee meetings correspond to the 90th percentile of these variables. Since the 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 this value corresponds to the minimum age a respondent could be in order to be politically active in the sense of having voted in the previous city-wide elections.

[25] 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 these variables.

predicted probability of 0.5784 of joining a protest event, while a non-activist has a predicted probability of 0.0004.[26]

[TABLE 2 ABOUT HERE]

In sum, the opportunity attribution associated with TM's infrastructure does help explain changes in the probability of joining a protest event in Bogotá but it should not be reified as *the* main explanatory factor. On the contrary, resources, biographical availability, community infrastructure, as well as political attitudes also weigh in the decision of joining a protest event. These results are in tandem with the qualitative evidence presented earlier.

Conclusions

In this paper, I show that the infrastructure of Bogotá's massive transportation system is not just a means to transport millions of people, but also the material source for a tactical innovation used by activists in the city to solve a common problem. The qualitative evidence I present shows that protestors do conceptualize TM shutdowns as highly effective, thus explaining why they ultimately use this tactic. In particular, activists in Carimagua perceived TM as an effective tactic both because of its accessibility and potential for disruption and also because activists' past use of this tactic (i.e. a demonstration effect) has led protestors to conclude that it can be effective. In the analysis of the quantitative data, I intended to supplement the findings derived from the case study by means of calculating the predicted probability of participating in a protest event in Bogotá based on the profiles of four ideal types of protestors. The analyses shown that the perceived likelihood of observing a TM shutdown intended to make visible a problem in respondents' community contributes to explain the probability of having joined a protest event after a set of theoretically meaningful controls found to be critical in the case study are included in the model. Future research should address the issues of endogeneity and time-order that underlie the quantitative analysis of this paper, however. The use of panel data on protest events such as those contained in the Social Struggles Database (Archila 2002; 2003) is promising in this regard. Taken together, both the quantitative and qualitative analyses provide substantial

[26] In order to graphically see which particular values of the key 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 when the variable TM shutdown is included into the equation, see appendix D, table D.1.

support for the critical role of the perceived effectiveness of a novel tactic to explain the emergence of a successful process of opportunity attribution, and, ultimately, individual's own mobilization.

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 element in explaining protest behavior and the use of TM shutdowns in Carimagua. In particular, the qualitative evidence made evident the critical role that particular mobilization structures, in the form of rickshaw drivers' associations, play in enabling the emergence of collective contention in general, and in the use of TM shutdowns in particular. Relatedly, the survey data suggest that the frequency with which individuals are involved in activities related to potential mobilizing structures such as community-improvement committees significantly impacts the likelihood of respondent's self-reported mobilization.

Similarly, resources and factors related to the biographical availability of protestors were found to be important in this paper. The flexibility of 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 analysis, respectively. Finally, respondents' political awareness and ideology also played a role in the qualitative and quantitative analyses alike.

Future research should address the expansion of mass transportation systems similar to TM (i.e. BRTS systems) and their relationship to mobilization in other latitudes. This is important because the extraordinary expansion of such transportation system throughout the global South (Campo 2010), increases the potential modularity (Tarrow 1994) of BRTS shutdowns. For reasons outlined in this paper, however, each particular case should be carefully analyzed since the interactions between the physical infrastructure of a given place and its community infrastructure are complex and context-specific. The fact that TM's infrastructure itself is a central piece of the analysis reminds us about the importance of physical infrastructure and space for collective action. In Gieryn's (2000: 466) words: "the place is not merely a setting or backdrop, but an agentic player in the game –a force with detectable and independent effects in social life." This is precisely why this paper advocates for the inclusion of the physical and transportation infrastructure of a given locality, and particularly of activists' perceptions of the opportunities spurred by this infrastructure, as a key component of the existing theories of

mobilization and tactical innovation. In particular, in this paper I show that the transformations that Bogotá's BRTS infrastructure underwent over the last decades (i.e. the implementation of TM) are critical to developing a sounded understanding of protest behavior and tactical innovation in the Colombian capital city.

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Figure 1. Americas Line, Transmilenio.

Digital Image. *La República* (newspaper). 6 June, 2012. Accesed: 12 July, 2014. http://bit.ly/1tzqwvB

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
Continuous Covariates				
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
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
Number of TM shutdowns in respondent's district in 2010	2.069	1.950	0 – 7	0.00
Dummy Covariates				
Respondent lives in central district (yes = 1)	0.090	0.287	0 – 1	0.00
TM infrastructure in respondent's district (yes = 1)	0.880	0.324	0 – 1	0.00
Sex (male =1)	0.490	0.490	0 – 1	0.00
Ordinal Covariates				
TM shutdowns			0 – 3	2.50
Unlikely	0.312			
Not very likely	0.353			
Somewhat likely	0.162			
Very likely	0.175			

Figure 2. Central and Non-Central Districts in Bogotá.

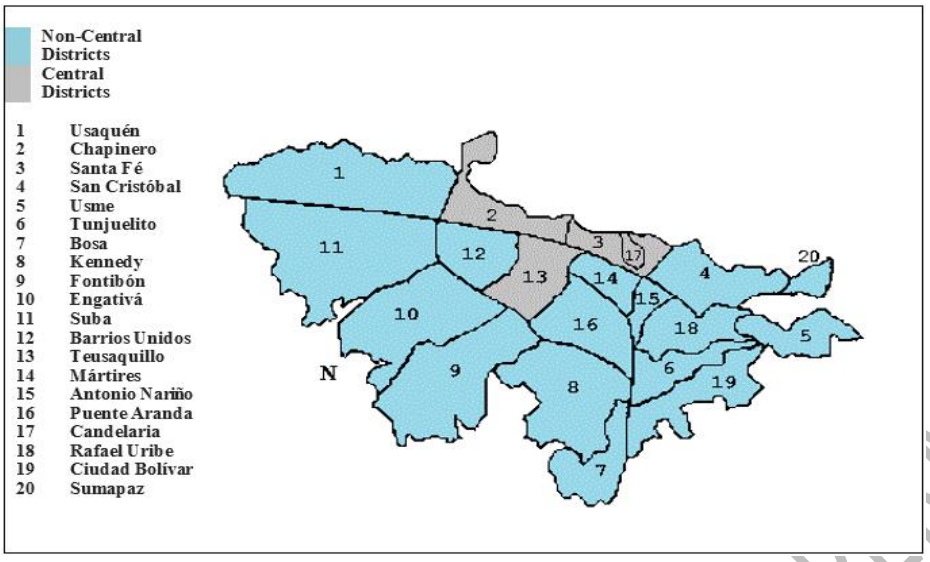


Figure 3. Transportation Solutions in Carimagua.

White Vans

Yellow Buses

Rickshaw

Patio Bonito TM Station

Table 2. Predicted Probability of Having Joined a Protest as a Function of Respondent's Profile.

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

Appendix A

Table A.1. Logistic Regressions Equations for Having Participated in a Protest Event in the Past Year in Bogotá, POS 2011 (N = 520).

Variables	Model A.1	Model A.2	Model A.3	Model A.4	Model A.5
Dependent variable (participated in a protest event = 1)	**Community Infrastructure**	**Bio. availability & resources**	**Political attitudes**	**Unrestricted: TM ordinal**	**Unrestricted: TM continuous**
Key explanatory variable (e.v.)		*Categorical explanatory variable (e.v.)*			*Continuous e.v.*
TM shutdown (ref= unlikely)					
Not very likely	0.9366*	0.7452	0.8282	1.2507*	0.4081*
	(0.5368)	(0.5355)	(0.5324)	(0.6533)	(0.2256)
Somewhat likely	-0.8822	-1.5959	-0.7011	-0.7302	
	(1.1041)	(1.1065)	(1.1086)	(1.1762)	
Very likely	0.9849	0.9590	1.2518**	1.8755**	
	(0.5991)	(0.6135)	(0.6255)	(0.7436)	
Control variables					
Community-improvement committee	0.0429***			0.0634***	0.0611***
	(0.0136)			(0.0181)	(0.0171)
Attendance religious services	-0.0288***			-0.0189	-0.0189*
	(0.0105)			(0.0117)	(0.0114)
Education		0.0895*		0.0560	0.0529
		0.0512		(0.0607)	(0.0557)
Age		-0.0305		-0.0513**	-0.0474**
		0.0189		(0.0217)	(0.0211)
Sex (men =1)		0.1198		-0.0560	-0.0715
		(0.4217)		(0.4672)	(0.4560)
Number of children		-0.6428**		-0.7804**	-0.7257**
		(0.2626)		(0.3073)	(0.3031)
Political awareness			0.0415***	0.0450***	0.0455***
			(0.0101)	(0.0122)	(0.0118)
Affinity Party of National Unity (ideology)			-0.0131*	-0.0199**	-0.0184**
			(0.0070)	(0.0080)	(0.0076)
Freq. TM shutdowns in respondent's district	-0.0180	-0.0711	-0.0147	-0.0689	0.0250
	(0.1491)	(0.1612)	(0.1520)	(0.1734)	(0.1638)
TM infrast. in respondent's district (yes = 1)	0.0289	0.1215	0.3083	0.9063	1.0233
	(0.7146)	(0.7327)	(0.7385)	(0.8698)	(0.8406)
Respondent lives in central district (yes = 1)	0.4508	0.8496	-0.1404	0.3904	0.0652
	(0.4508)	(0.9076)	(0.8654)	(1.0189)	(.9784)

Constant	-3.1243*** (0.7301)	-2.661** (1.1160)	-5.4697*** (1.0388)	-4.226*** (1.455)	-4.3655*** (1.3741)
N	520	520	520	520	520
AIC	207.3421	194.4894	199.1516	165.8883	170.4156
BIC	245.6266	241.2816	237.4361	229.6957	225.7154
Likelihood-ratio test	**M_1 vs. M_4**	**M_2 vs. M_4**	**M_3 vs. M_4**		**M_5 vs. M_4**
H_o: fit $M_i \geq$ fit M_4; H_a: fit $M_i <$ fit M_4	53.45 ***	36.60***	45.26***		8.53**

* <0.1; ** <0 .05; ***<0.01 (two-tailed tests); standard errors in parenthesis.

Appendix B.

Table B.1. Regressions Equations for the Perceived Likelihood of Observing a TM Shutdown Intended to Make Visible a Community Problem, POS 2011 (N = 520).

	Model B.1: Ordered Logit Reg.	**Model B.2: Logistic Reg.**	**Model B.3: Logistic Reg.**	**Model B.4: Linear 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	
R^2		-	-	0.0583

* <0.1; ** <0 .05; ***<0.01 (two-tailed tests); standard errors in parenthesis. Note: The ordered logit violates the parallel regression assumption

Appendix C.

Table C.1 Firth's Logistic Regressions for Rare Events: Equations for Having Participated in a Protest Event in the Past Year in Bogotá, POS 2011 (N = 520).

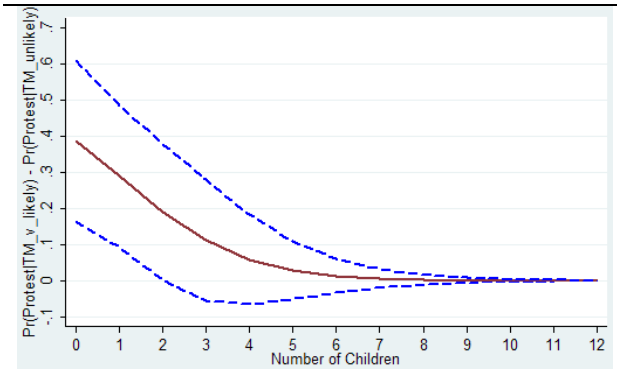
Variables	Model C.1	Model C.2
Dependent variable (participated in a protest event = 1)	**Unrestricted model for rare events: TM categorical**	**Unrestricted model for rare events: TM continuous**
Key explanatory variable		
TM shutdown (ref= unlikely)		**TM shutdown (continuous)**
Not very likely	1.0916*	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 X^2	34.89***	33.38***

* <0.1; ** <0 .05; ***<0.01 (two-tailed tests); standard errors in parenthesis.

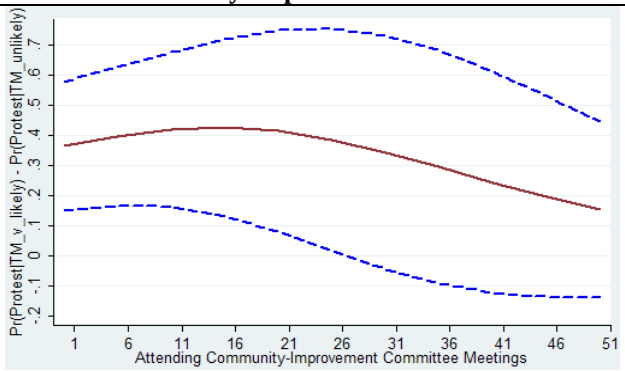
Appendix D

Table D.1 Difference in the Discrete Predicted Probability of Having Protested by Activist's Perceived Likelihood of Observing a TM Shutdown over the Range of Key Control Variables.

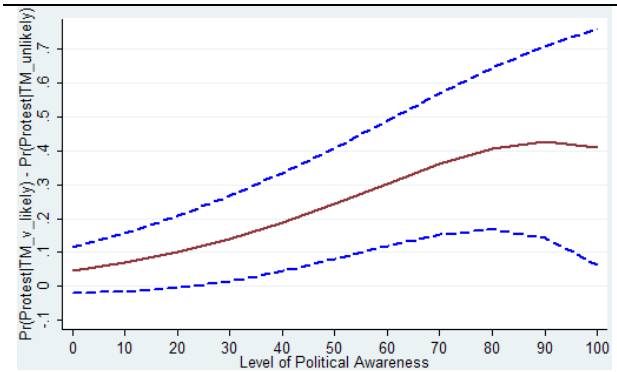
Panel A. Number of Children.



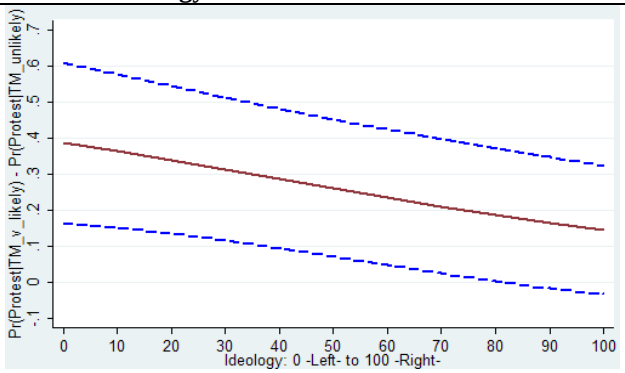
Panel B. Community-Improvement Committee Meetings



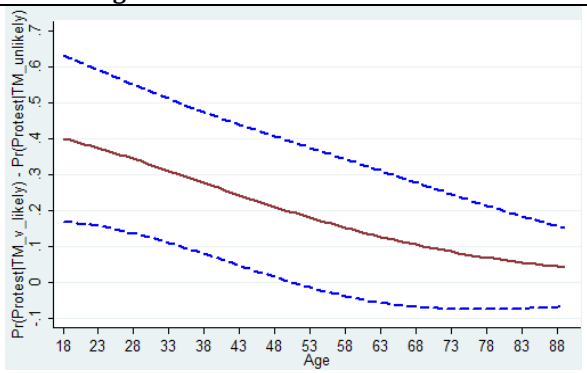
Panel C. Level of Political Awareness



Panel D. Ideology



Panel E. Age



Solid lines represent the point estimate of the difference in discrete probability of having joined a protest event between the ideal type *activist* who believes that observing a TM shutdown is very likely (TM shutdowns = 3) versus the ideal type *activist* who thinks it is unlikely (TM shutdowns = 0). Dashed lines represent the 95% confidence interval around this point estimate. 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 having joined a protest based on an ideal type *activist* believes' about the perceived likelihood (unlikely vs. likely) of observing a TM shutdown. For example, panel E (age variable) suggests that if an *activist* that believes observing a TM shutdown is very likely is about 48 years old or older his/her predicted probability of having joined a protest is statically indistinguishable from the predicted probability of having joined a protest exhibited by an *activist* that believes that observing a TM shutdown is unlikely.