

Corruption Intolerance and Protest Participation

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Abstract

Corruption impedes people's economic and political aspirations, but is this impediment enough to activate people's political engagement? In the case of protest mobilization, existing research provides inconsistent answers. While some researchers argue that corruption dissuades protesters, others find that corruption mobilizes protesters. I argue that existing measures of corruption evaluations are unable to capture how people evaluate corruption. I develop a two-dimensional classification scheme that captures a person's corruption perceptions relative to their corruption exposure, uncovering four corruption intolerance groups that correspond to different protest patterns. Using Life in Transition Surveys data, I empirically identify how distinct intolerance groups correspond with different protest propensities, showing which combinations of exposure and perceptions are more likely to engender mobilization. Only those who are jointly exposed to corruption and perceive it to be widespread have a high likelihood of protest participation, demonstrating the challenge of mobilizing protesters around the issue of corruption.

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Years after World Bank president James Wolfensohn declared it a “cancer” in his 1996 address, corruption persists. Corruption’s persistence continues to fuel mass outrage. A 2017 Gallup World Poll found that, on average, 64 percent of respondents believe that corruption has reached “widespread” levels in their countries. Despite countless anti-corruption protests around the world, a growing body of scholarship on corruption and protest mobilization fails to explain whether this outrage with corruption sparks protest action. In light of this literature gap, I ask how corruption affects protest participation.

Central to studies of corruption’s influence on protest participation is the question of how people evaluate corruption. Researchers who study the effects of *corruption perceptions* on protest activity reach contradictory conclusions. Some studies show that those who believe that corruption is pervasive in their country are more likely to participate in protests (Chaisty and Whitefield 2013). Others find that those who believe that corruption is pervasive are less likely to participate in protests because their pessimistic attitudes lead to political disaffection and subsequent self-removal from general political engagement (Davis, Camp, and Coleman 2004; Olsson 2014). Studies exploring the effects of *corruption exposure* on protest activity find that those who are exposed to corruption are more likely to participate in protests. These studies suggest that exposure to corruption contributes to feelings of victimization that can propel political engagement (Gingerich 2009; Machado, Scartascini, and Tommasi 2011).

I argue that corruption perceptions and corruption exposures approaches fail to capture how individuals evaluate corruption because neither one provides a way to account for a person’s tolerance of corruption. I propose a straightforward solution. I create a holistic classification system that allows researchers to encapsulate both approaches to studying corruption evaluations and derive corruption intolerance groups. I compare corruption perceptions with exposure to corruption

and develop a classification system with four corruption “intolerance” groups — subsets of the population with distinct evaluations of corruption. I categorize individuals as victims, isolates, cynics, and pragmatists. Building on existing explanations, I argue that victims — those who are jointly exposed to corruption and believe that corruption is common — are the most likely to protest. I also explain that pragmatists — those who are neither exposed to corruption nor believe that corruption is common — are the least likely to protest.

I use the two most recent waves of the Life in Transition survey, collected in 2010 and 2016, to test the effects of corruption on protest participation. The findings support my expectations and show that victims are the most likely to protest, and pragmatists are the least likely to protest. I also find that isolates — those who are exposed to corruption but do not believe that corruption is common — are positively associated with protest participation. Finally, I find some support that cynics — those who are not exposed to corruption but believe that corruption is common — are also likely to be protest participants. These findings are robust to imbalance corrections, different model specifications, and across various contexts.

The implication of these findings is that individuals evaluate corruption on a two-dimensional plane that encompasses perceptions of and exposure to corruption. This relativistic framework shows that, alone, perceptions of widespread corruption or exposure to corruption are comparably weak predictors of protest participation, meaning corruption mobilizes only a select portion of people. In turn, mass mobilization efforts oriented around the issue of corruption must evolve to incorporate other frames to attract more participants. In what follows, I describe the state of the literature, illustrate the core argument, explain the data and estimation strategy, and present results.

Corruption and the Individual

People are rightfully concerned about corruption, which scholars show corresponds to countless political and economic ills (see Treisman 2007). For instance, corruption allows politicians to circumvent mechanisms of public accountability (Rose-Ackerman and Palifka 2016). Corruption also privileges the wealthy and powerful at the expense of the average person, preventing equal access to goods and services (Rose-Ackerman 2013). Moreover, corruption is financially taxing for individuals, contributing to extraneous expenses that they would otherwise be avoided (Shleifer and Vishny 1993).

Despite corruption's problems, studies fall short of an answer to the central question at the heart of this study: does corruption drive protest participation? Of course, there are countless examples of protest movements whose central themes are related to government corruption. For example, Romanians responded with mass demonstrations following attempts by their government to reduce corruption penalties. In Russia, Alexei Navalny's campaign against elite corruption spurred numerous protests. And Brazilian protesters flooded streets, protesting government corruption in the days leading up to their country's hosting of the Olympic Games.

In spite of these examples, scholarship is less certain about the effects of corruption on protest behavior. In what follows, I address two dominant themes present in studies on corruption as a driver of political behavior. I follow this discussion by developing a new method for interpreting how individuals engage with the idea of corruption and how this contribution affects our knowledge of the effect of corruption on protest participation.

Perceptions, Exposure, and Protest Participation

Scholars conceptualize people's evaluation of corruption according to two criteria: corruption perceptions and corruption exposure. Those studying corruption perceptions argue that the degree to which people view corruption as a problem in their country drives their protest participation. Studies of corruption perceptions use survey questions to gauge the degree to which respondents believe corruption is prevalent in their environments. Although there also exist expert-based perceptions measures, here I refer only to citizens' perceptions, although expert perceptions tend to match citizen perceptions (Charron 2016).

Research on corruption perceptions and protest participation show support for two contradictory hypotheses. First, conventional thought holds that dire perceptions of corruption translates into greater political activism (Bratton and Walle 1992) such as increased voter turnout (Kostadinova 2009). In explaining protest participation, certain studies show similar empirical support for the argument that heightened corruption perceptions mobilize protesters (Inman and Andrews 2009; Chaisty and Whitefield 2013) potentially because perceptions of widespread corruption reveal the antagonistic relationships between citizens and their governments (Collins and Gambrel 2017). Corruption perceptions may also mobilize participation in strikes and occupations of buildings (Kostadinova 2013). These findings suggest the following hypothesis:

Positive Perceptions Hypothesis H_{1a} : Individuals who perceive corruption to be common are more likely to participate in protests.

Other scholars, however, find that higher perceived levels of corruption discourage mass political participation in general and protest participation specifically. These studies argue that when individuals perceive high levels of corruption, they demobilize from political activities, such as

voting (McCann and Dominguez 1998; Stockemer, LaMontagne, and Scruggs 2013; Chong et al. 2014) and protest participation (Davis, Camp, and Coleman 2004; Olsson 2014). Indeed, Thomas and Louis (2014) show that under depressed levels of protest participation, high levels of perceived corruption may lead individuals away from formal political participation and toward violent and more extreme responses.¹ These contradictory findings suggest an alternative hypothesis:

Negative Perceptions Hypothesis H_{1b}: Individuals who perceive corruption to be common are less likely to participate in protests.

Recent research challenges the belief that corruption perceptions appropriately capture how people think about corruption. These studies note that one's perception of corruption may be entirely different from one's exposure to corruption (Seligson 2006; Rose and Mishler 2010). Whereas perceptions of corruption studies focus on how people evaluate corruption in their surroundings, corruption exposure studies focus on people's experiences with corrupt activities, such as bribery.

While perceptions-based studies disagree about corruption's role in mobilizing protesters, exposure studies consistently show that exposure to corruption encourages protest participation. Gingerich (2009) uses survey data from Bolivia to study the effects of corruption exposure frequency and corruption perpetrator institutional affiliations on protest activity. He finds that while low levels of exposure to corruption do not drive protest, higher levels of exposure mobilize protest activity. High levels of exposure to corruption violate expected social norms, leading individuals to feel victimized and become more prone to engaging in protest activity. Other studies find additional support for the positive effect of corruption exposure on protest participation (Machado, Scartascini, and Tommasi 2011; Monyake 2016). An exposure hypothesis follows:

¹Some studies also show that corruption has no discernible effect on protest participation (Pilati 2011, Moseley 2015, and Christensen 2016).

Exposure Hypothesis H₂: Individuals who are exposed to corruption are more likely to participate in protests.

In the following section, I outline problems in the dominant perceptions and exposure approaches. In short, I maintain that these approaches fail to account for the extensive literature on contentious politics that deals with the role that discrepancies between expectations and realities play in individual calculations when deciding whether or not to protest.

Relative Deprivation and Corruption

Studies of corruption's effect on protest behavior often ignore the psychological factors that contribute to people's evaluations of corruption. I use existing approaches to build a new, two-dimensional framework for studying corruption evaluations. I argue that perceptions of corruption and exposure to corruption capture two different aspects of how people think about corruption.

I suggest that thinking of one's perceptions relative to one's exposure to corruption allows scholars to develop a more complete picture of how people evaluate corruption. Contentious politics research on relative deprivation provides an avenue for improving our understanding of corruption. In his seminal study of political violence, Gurr (1970) defines relative deprivation as an actor's "perception of the discrepancy between their value expectations and their value capabilities." That is, relative deprivation constitutes the difference in what an individual believes they should be able to achieve and what they can achieve. Gurr's central contribution is that deprivation alone does not drive mass rebellion. He contends that people evaluate how deprived they are relative to their expectations and use this assessment to form their impressions on whether or not rebellion is worthwhile. The likelihood of rebellion increases as the mismatch between expectations and reality widens.

Political psychology research finds evidence that corruption may contribute to a person's deprivation. Scholars find that corruption damages mental health (Van Deurzen 2017), subjective well-being (Tavits 2008), and life satisfaction (Wu and Zhu 2016). Corruption may also contribute to higher suicide rates (Yamamura, Andrés, and Katsaiti 2012). The effects of corruption on these psychological outcomes are particularly adverse among individuals who are religious and have lower incomes (Van Deurzen 2017). It may be the case that corruption's detrimental psychological effects operate through corruption's lowering of institutional trust (Tay, Herian, and Diener 2014; Ciziceno and Travaglino 2018). In light of the relationship between corruption and variants of psychological deprivation, I treat corruption as an institution that, in part, contributes to a person's sense of relative deprivation.

Corruption Intolerance

I propose a way of understanding corruption that accounts for the relative nature in the ways people interpret corruption. For instance, while the average Ukrainian may be more accustomed to paying bribes than the average Canadian, both groups of people may perceive corruption at equal levels in their respective countries. By accounting for both corruption perceptions and exposure to corruption, I argue for a new approach to studying how individuals evaluate corruption and provide expectations about how corruption influences protest mobilization.

In my approach, I categorize individuals according to four corruption intolerance evaluation groups. I illustrate these groups and propose expectations about their effects on protest participation outcomes in Figure 1. I define a person's placement into these groups according to two characteristics: 1) whether or not the person was exposed to corruption; and 2) whether or not the person perceives corruption to be common. I build this straightforward approach to studying corruption off of the

		Perception of Corruption	
		Common	Uncommon
Exposure to Corruption	Exposed	<p>Corruption Victim</p> <p>Person has experienced corruption, which informs their belief that corruption is common.</p> <p>Outcome: most likely to protest</p>	<p>Corruption Isolate</p> <p>Person exposed to corruption believes that his/her experiences are not shared by others.</p> <p>Outcome: more likely to protest</p>
	Unexposed	<p>Corruption Cynic</p> <p>Person has not been exposed to corruption but believes that corruption is common.</p> <p>Outcome: more likely to protest</p>	<p>Corruption Pragmatist</p> <p>Person has not experienced corruption, which informs their belief that corruption is uncommon.</p> <p>Outcome: least likely to protest</p>

Figure 1: Corruption Intolerance Groups and Expectations

two existing approaches described above.

First, individuals may be exposed to corruption and may also perceive corruption as common in their countries. I refer to this group of people as *victims*. Not only have these people experienced corruption, but they are also upset at the prevalence of corruption, likely attributing blame toward those in the government for their failure to control corruption levels. As such, they are the most likely of all groups to experience the psychological toll of corruption. In this way, such individuals feel victimized by the presence of corruption and their confrontation with it. Because of these feelings of victimization, I expect such individuals to be the most likely candidates for protest participation. Perhaps more than anyone, victims' experiences combined with their beliefs of corruption drive a particularly intolerant attitude toward the status quo, resulting in their political activism. The third hypothesis is as follows:

Victim Hypothesis (H₃): Those who are both exposed to corruption and perceive corruption to be common have the highest likelihood of protest participation.

Second, some individuals believe that corruption is uncommon even though they have experienced corrupt activity. I refer to such people as *isolates*. The experiences that isolates have with corruption fail to sway their beliefs. Such individuals have grown accustomed to corruption in their country, adopting the belief that corruption is a typical informal mechanism of obtaining services and goods. Such individuals may become resigned to the state of corruption and the ineffectiveness of their political institutions.

Nevertheless, their passive attitudes toward corruption norms may be variable. Isolates may have once participated in protests, believing that the protest results in long-term political changes. In other words, isolates may be former victims, having been exposed to corruption and having attributed blame for its presence. If so, isolates are disengaged victims. As disengaged victims, isolates' activism may reignite in the presence of a widespread mobilization effort and a sufficiently high potential for success. Therefore, isolates may be disengaged or latent victims. Therefore, I expect that isolates are positively but weakly related to protest participation. A fourth hypothesis follows:

Isolate Hypothesis (H₄): Those who are exposed to corruption but perceive corruption as uncommon are associated with an increased likelihood of protest participation.

I refer to the third group of individuals as *cynics*. Despite not having being exposed to corrupt activity, cynics perceive corruption to be common. I attribute this discrepancy between perceptions and exposure to one of two phenomena. First, their beliefs may be a possible result of a default effect, suggesting that when surveys ask about corruption perceptions, individuals use heuristics

to default to certain answers. Given a high prevalence of corruption scandals (Costas-Pérez, Solé-Ollé, and Sorribas-Navarro 2012) and the frequency with which corruption is at the center of political discourse (Curini and Martelli 2015), it is likely that most people's default response would be that corruption is common. Indeed, this effect may apply to situations beyond surveys, as overestimating corruption levels is common. If the default effect were driving this mismatch between experiences and beliefs, I anticipate that such individuals would be dedicating little attention to evaluating corruption. Such individuals are unlikely to be politically active members of society and are unlikely to participate in protest actions.

Alternatively, cynics may be more likely to protest if a different mechanism were in effect.² Cynics may believe corruption to be common because they are personally familiar with instances of corruption involving members of their families, friends, or colleagues. In corrupt environments, where many institutions of accountability are thought to be untrustworthy, information and rumors spread by word-of-mouth. A person without exposure to corruption may be aware of its prevalence through families, friends, and colleagues. In the presence of these individuals' victimization, cynics may also feel victimized despite never having experienced corruption for themselves. This situation may be sufficient enough to drive protest participation. A fifth hypothesis follows:

Cynic Hypothesis (H₅): Those who are not exposed to corruption but perceive corruption as common are associated with an increased likelihood of protest participation.

Last are those who have neither been exposed to corruption nor perceive corruption to be common. I refer to these individuals as *pragmatists*. Using their lack of corruption exposure as a heuristic, pragmatists believe that corruption is uncommon. Pragmatists are not necessarily producing accurate evaluations but are instead using informed reasoning to arrive at their beliefs about

²I thank Leonid Polishchuk, Robert Orttung, and Katie Stewart for raising this issue.

corruption. Given their lack of exposure to corruption and their belief that corruption is uncommon, I expect pragmatists to be, among all the groups, the least likely to participate in protests. That is, I anticipate a negative relationship between pragmatists and protest participation, because pragmatists have little reason to protest if they are satisfied with the status quo. The last hypothesis follows:

Pragmatist Hypothesis (H₆): Among all groups, those who are neither exposed to corruption nor perceive corruption as common are associated with the lowest likelihood of protest participation.

I have argued that perceptions of corruption and exposure to corruption each depict part of the full story. In combining the two, I propose a corruption intolerance framework, out of which I develop the four corruption intolerance groups. My hypotheses predict that those who are exposed to corruption and believe that corruption is common (victims) are the most likely to protest, while those who are neither exposed to corruption nor believe corruption to be common (pragmatists) are the least likely to protest. I also expect mismatches between corruption perceptions and exposure among isolates and cynics to have a positive effect on protest participation, albeit a weaker effect than the one associated with victims. In the next section, I introduce the research design that I use to test these hypotheses.

Testing with Cross-National Survey Data

I use the European Bank for Reconstruction and Development's Life in Transition (LITS) survey data to evaluate the effect of different corruption intolerance groups on protest participation. LITS is a collection of repeated cross-sectional country-wide surveys implemented in post-Soviet countries, Sweden, the United Kingdom, Germany, France, Italy, Greece, Cyprus, and Turkey. Although three



Figure 2: Map of Included Countries

survey waves are available (2006, 2010, and 2016), I use the two most recent waves, which are the only ones that ask comparable and relevant questions about corruption exposure.

Adult survey respondents (at least 18 years of age) are selected using a multi-stage random probability stratified clustered sampling strategy, stratified according to geography and whether respondents live in urban or rural communities.³ Surveys are conducted face-to-face and contain responses from at least 1,000 respondents per country in the second wave and 1,500 respondents per country in the third survey wave.

I use a subset of the data that includes data from countries with a history of communist rule. Responses from Uzbekistan are excluded because political sensitivity prevented interviewers from asking certain, relevant political questions about protest behavior to Uzbek respondents. In Figure 2, I also provide a map of the included countries. The subset of the data used in the analysis includes 65,139 survey respondents of the original approximately 90,000 respondents. This subset excludes missing observations (unless otherwise noted) and countries without communist legacies. A full list of 28 included countries and the number of respondents associated with each country

³In the third wave of LITS, respondents are also stratified by metropolitan in addition to urban and rural areas.

and in each survey wave is available in Appendix A.

By only including countries with histories of communism, I limit possible interference from factors that differ between countries with communist legacies and those without. In particular, post-communist countries share legacies that affect political institutions, cultural patterns, and political attitudes (Mishler and Rose 2001; Pop-Eleches 2007; Pop-Eleches and Tucker 2017). At the same time, these post-communist countries vary in the variables central to this study: perceptions of corruption (Linde 2012), exposure to corruption (Diaby and Sylwester 2015), and protest behavior (D’Anieri 2006). In the appendix, I provide results from the subset of LITS countries excluded in the baseline models (Appendix D). These results support those from the baseline models.

Variables

I describe variable coding decisions below, present descriptive statistics for the factor variables in Table 1, and present descriptive statistics for the continuous variables in Table 2. In the following section, I explain the measurement strategies for each of the variables.

Measuring Protest Participation

I construct the binary dependent variable, *protest participation*, by referring to LITS questions that ask about whether or not survey respondents had previously participated in a protest or in a strike. I include strikes, because in many of the authoritarian contexts in which surveys were collected, strikes serve as an alternative option for citizens wishing to publicly air their grievances with the regime. For instance, in Russia, long haul truckers staged a massive, nationwide strike against a government-imposed road tax. Although the truck drivers largely avoided criticizing

Table 1: Descriptive Statistics for Categorical Variables

Variable	N	No. Unique Values	N in Unique Values
Protest Participation	65139	2	0: 59217, 1: 5922
Perceptions	65139	2	0: 53822, 1: 11317
Exposure	65139	2	0: 57442, 1: 7697
Victim	65139	2	0: 62447, 1: 2692
Isolate	65139	2	0: 60134, 1: 5005
Cynic	65139	2	0: 56514, 1: 8625
Pragmatist	65139	2	1: 48817, 0: 16322
Urban	65139	2	1: 37045, 0: 28094
Female	65139	2	2: 37635, 1: 27504
Survey Year	65139	2	2010: 37927, 2016: 27212

Table 2: Descriptive Statistics for Continuous Variables

Variable	N	Mean	SD	25th Percentile	50th Percentile	75th Percentile
Civic Activity	65139	0.19	0.62	0	0	0
Age	65139	47.2	17.38	32	46	60
Education	65139	4.28	1.4	3	4	5
Life Satisfaction	65139	3.15	1.1	2	3	4
Political Satisfaction	65139	2.51	1.13	2	2	3
Executive Trust	65139	2.98	1.35	2	3	4
Wealth	65139	4.44	1.67	3	5	5

Note: Civic activity is a zero-inflated variable with most respondents not participating in any activities.

Vladimir Putin, they framed their strike around the issue of corruption. Referring to the road taxes, one man said, “We want to know where the money is going... we don’t need a corrupt system,” highlighting how the truckers used a strike as an indirect avenue for criticizing corruption in government (Filipov 2017).

I use two LITS questions to measure protest participation. In both survey waves and across all countries, respondents were asked nearly identical or identical forms of the following questions and given the same answer choices:

How likely are you to attend a lawful demonstration? [Have done, might do, or would never do]

How likely are you to participate in a strike? [Have done, might do, or would never do]

I recode those who answered “Have done” in response to either question as 1 and 0 otherwise. About 9 percent of included respondents had participated in any lawful demonstration or a strike. This represents a conservative estimate of protest participation, as more respondents may have only participated in unlawful demonstrations. Careful question wording is necessary, however, in countries with political repression and censorship. At the very least, these questions present an opportunity for conservative tests of the specified hypotheses.

Measuring Corruption

Perceptions

Scholars regularly find that the *perception* of widespread corruption reduces protest participation. I test this expectation, which constitutes my first hypothesis, by developing a perceptions measure. This measure relies on an LITS survey question that asks individuals about their perceptions about the level of corruption in the different contexts: road police, obtaining official documents, civil courts, public education, medical treatment, unemployment benefits, and social security. The question asks respondents the following:

In your opinion, how often do people like you have to make unofficial payments or gifts in these situations? [Never, seldom, sometimes, usually, or always]

I create a corruption perceptions dummy variable, P_{it} , for each respondent at each survey wave using the following logic:

$$P_{it} = \begin{cases} 0 & \text{if } \sum p_{it} \leq \mu_p + \sigma_p \\ 1 & \text{if } \sum p_{it} > \mu_p + \sigma_p \end{cases}$$

where I calculate a summated perceptions score for each respondent across the list of above contexts ($\sum p_{it}$), where “Never” is equal to 0, “Seldom” is equal to 1, “Sometimes” is equal to 2, “Usually” is equal to 3, and “Always” is equal to 4. I also code missing responses as 0. I code a respondent as 1 if their additive index score was greater than one standard deviation, σ_p , above the mean, μ_p , for all respondents and 0 otherwise. Just over 17 percent of respondents have perceptions of corruption greater than one standard deviation above the mean. This value is typical for comparable perceptions questions asked in post-communist countries by other survey firms (Pring 2017).

Exposure

Unlike corruption perceptions, scholars find that *exposure* to corruption raises the likelihood of protest participation. I test this second hypothesis by referring to a survey question that asks respondents to state whether they or a household member had made an unofficial payment or provided a gift to representatives of any of the following sectors: road police, obtaining official documents, civil courts, public education, medical treatment, unemployment benefits, and social security. The question asks:

Did you or any member of your household make an unofficial payment or gift when using these services over the last past 12 months? [Yes, no]

I create a corruption exposure dummy variable, E_{it} , using a method comparable to the one used in deriving a perceptions measure:

$$E_{it} = \begin{cases} 0 & \text{if } \sum e_{it} \leq \mu_e + \sigma_e \\ 1 & \text{if } \sum e_{it} > \mu_e + \sigma_e \end{cases}$$

where I first calculate a summated perceptions score, $\sum p_{it}$, for each respondent, where “No” is equal to 0 and “Yes” is equal to 1. As with the perceptions measure, I also code missing responses as 0. I then calculate the sample’s mean, μ_e , and standard deviation, σ_e . I compare each respondent’s score at each survey wave to the value of the sample mean plus the sample’s standard deviation. For respondents’ whose scores are greater than the sum of the sample mean and standard deviation, I assign a value of 1. Otherwise, I assign a value of 0. Nearly 12 percent of respondents are at least one standard deviation above the mean exposure response. The figure is expectedly lower than the percentage of individuals who believe that any of these sectors are highly corruption and is consistent with the results of other surveys (Pring 2017).

While this comparably lower figure may be a result of under-reporting by survey respondents who are fearful or uncomfortable with disclosing their participation in corrupt activities, I do not believe this issue to be the case here for a couple of reasons. First, rather than ask individuals a direct question about whether they had paid a bribe, as many surveys do, the LITS asks individuals an indirect question about whether a government employee asked them for a bribe. Because of this indirect question wording, the survey language does not implicate respondents in any criminal behavior but still affords researchers an understanding of levels of exposure to corruption. Second, corruption researchers find that survey questions asking about exposure tend to provide more accurate portrayals of individual experiences with corruption (Seligson 2006; Gingerich 2009). As such, this question should provide responses consistent with reality.

Corruption Victim

In order to test the effects of different corruption tolerance groups on protest participation, I design a new method that compares responses to perception and exposure questions. The third hypothesis proposes that those who believe that corruption is common and have also experienced corruption are the most likely to protest. Only those who I code as 1s in both the perception and exposure measures are now coded as 1 in the victim measure. All others are coded as 0. Just over 4 percent of respondents are in this group.

Corruption Isolate

The fourth hypothesis anticipates that the isolate group, which holds a belief that corruption is uncommon despite having experienced it, is more likely to protest. Again, using the exposure and perceptions measures, I code those who have been exposed to corruption but who hold an opinion that corruption is uncommon as 1 and others as 0. The uniqueness of the isolate group is borne out in the number of people who belong to it. Almost 8 percent of survey respondents belong to this category.

Corruption Cynic

In the fifth hypothesis, I predict that those who believe that corruption is common but have themselves not experienced corruption to be less likely to protest. I code those who have not been exposed to corruption but who hold the opinion that corruption is common as 1 and others as 0. The cynic group constitutes about 13 percent of survey respondents.

Corruption Pragmatist

In the last hypothesis, I predict that those who believe that corruption is uncommon and have

not experienced corruption are the least likely to protest. I code those who have neither been exposed to corruption nor hold an opinion that corruption is common as 1 and others as 0. The pragmatist group constitutes the largest portion, over 75 percent, of survey respondents. This figure is unsurprising, since few people are ever in a position participate in corrupt activities or have the material wealth required to do so (Hunt and Laszlo 2012).

Control Variables

I also include a number of controls that I distinguish according to two thematic groups. The first group of controls reflects respondents' sociopolitical attitudes. In this group, I measure political satisfaction, executive trust, civic activism, and life satisfaction. In the second group, I include the following demographic controls: education, gender, life in an urban environment, age, wealth, and the wave of the survey in which the respondent took part. In the estimation strategy section, I also discuss my strategy for capturing differences across countries.

Sociopolitical Controls

I include four sociopolitical control variables: political satisfaction, executive trust, civic activism, and life satisfaction. Putnam, Leonardi, and Nanetti (1994) reveal how poor institutions undermine political engagement. In turn, the first variable, *political satisfaction*, accounts for how a person's belief about quality of governance in their country affects their protest participation. The LITS question used to measure political satisfaction asks the extent to which respondents agree with the statement that, "The political situation in [their] country is better today than around 4 years ago." Measured on a five-point scale, the variable's higher values are indicative of greater satisfaction with their country's politics, while lower values indicate dissatisfaction.

I include the second variable, *executive trust*, to capture the possible negative relationship between trust in the presidency and protest behavior (Braun and Hutter 2016). That is, those who trust the presidency should be less likely to protest. The question I use to measure executive trust asks, “To what extent do you trust the Presidency?” Respondents can provide an answer on a five-point scale ranging from complete distrust (1) to complete trust (5).

Next, I control for *civic activism*. Prior activism affects how people perceive and participate in future protests (McAdam 1986; Finkel and Muller 1998; Smyth 2018). I use a set of questions about participation in any of the following civil society groups: religious organizations; sport and recreational organizations; cultural or educational organizations; labor unions; environmental organizations; professional associations; charities; or youth associations. In the 2016 survey wave, respondents are also asked about participation in women’s groups and farming cooperatives. The question asks people to state whether they are active, passive, or non-participants in any of the above organizations or groups. I code those who are active participants in each civil society organization as 1 and all others as 0. I collapse civic group participation into a summated index.

The last sociopolitical control variable that I include is *life satisfaction*. Prior research identifies that those who have higher life satisfaction are more likely to participate in protests, along with other political activities, such as voting (Flavin and Keane 2012). My measure of an individual’s life satisfaction relies on a question that asks people to use a five-point scale to rate their satisfaction with their life with higher values corresponding to greater life satisfaction.

Demographic Controls

I include four demographic control variables. With the first, I control for *education*, because studies identify a positive relationship between higher levels of education and protest participation (Dalton,

Van Sickle, and Weldon 2010), and support for protest actions (Hall, Rodeghier, and Useem 1986). I use the survey's original coding of education, which I treat as a continuous variable that takes on values from 1 (no education) to 8 (graduate degree). Next, I control for gender by assigning 1 to those identified as *female* and 0 otherwise. My decision to control for gender is guided by prior findings in the literature on protest behavior that indicate gender differences in protest participation, with women being less inclined participants (e.g., Schlozman, Burns, and Verba 1994; Dalton 2013).

Third, I assign a 1 to those who live in *urban* areas (capital city metropolitan areas or in large cities) and 0 to those living in more rural areas or smaller cities. Geography represents an important factor in predicting protest behavior. Urban areas are major population centers that provide symbolic elements and resources that provide opportunities for protest actions. As such, urban dwellers are more likely to participate in protests (Salmenkari 2009; Slater 2010). I then control for the effect of *age*, which tends to have a negative effect on protest participation. That is, protest participants tend to be younger rather than older (Hoffman and Jamal 2012; Schussman and Soule 2005).

I then include a control for *wealth*, more of which may either deplete protest participation (Lipsky 1968) or encourage it (Schussman and Soule 2005). I measure wealth using a survey question that asks respondents to place themselves on a 10-point scale that corresponds to wealth percentiles, where 1 point indicates that they are among the poorest 10 percent of the population and 10 points indicate that they are among the 10 percent richest in the population. Finally, I also include a dummy for the *survey year* to control for any differences that may have taken place in the six-year gap between the surveys.

Estimation Strategy

Hierarchical models are recommended when the data structure combines multiple levels of analysis. In my case, researchers conducted the LITS surveys at the country level. Moreover, survey respondents may hold attitudes and behaviors that are unique to their countries. In using hierarchical modeling, I can model the multilevel nature of the data. This estimation strategy helps reduce model misspecification, test the generalizability of the results, and decrease the likelihood of obtaining false positives (Steenbergen and Jones 2002). Although Monte Carlo simulations show that when grouped by countries, the Bayesian approach to hierarchical modeling produces less biased estimates than the frequentist approach, when the number of countries approaches 30, as is the case with the subset of the LITS data used here, the two approaches converge on the same value (Stegmueller 2013).

My main estimation strategy uses a random intercepts linear probability hierarchical model grouped by country. I estimate the following baseline model:

$$y_{ij} \sim N(a_j + \beta\Phi_{ij} + \beta\Omega_{ij} + \beta\Gamma_{ij} + \beta\lambda_{ij}, \sigma_y^2)$$

where y_{ij} is vector of binary protest responses for each individual, i , in country, j . The matrix Φ contains the core independent variables of interest measuring corruption perceptions, exposure, and intolerance groups; Ω contains sociopolitical attitude control variables; Γ contains demographic control variables; and λ is a vector capturing the survey year effect. The distribution is assumed to be normal with variance σ_y^2 . Varying intercepts are represented by a_j , which is denoted as:

$$a_j \sim N(y_0 + y_1 z_j, \sigma_a^2)$$

where y_0 represents the grand mean of the dependent level averaged across all countries, y_1 is the effect of the country-level characteristics, z_j . The distribution of a_j is assumed to be normal with variance σ_a^2 .

In addition to these baseline models, I also estimate models with balanced data, corrected through a coarsened exact matching method. These results are found in Appendix F. Matched data estimations are similar to the ones produced out of the unmatched baseline regressions. In additional robustness checks, I estimate hierarchical logistic (Appendix B) and fixed effects models (Appendix C), both of which support the baseline results. In the section that follows, I present my results.

Results and Discussion

I present the results in two sections. I first test the first two hypotheses about the effects of perceptions on protest participation (H_{1a} and H_{1b}) and of corruption exposure on protest participation (H_2). My findings support prior studies that show a positive effect of corruption perceptions on protest participation. The findings also support the second hypothesis that exposure to corruption encourages protest participation.

Although the findings indicate little distinction between the effects of perceptions and exposure, I do find evidence that corruption intolerance groups are associated with different likelihoods of protest participation. My results show that all groups except for pragmatists are more likely to participate in protests. Pragmatists, however, are associated with a relatively strong negative

likelihood of protest participation. Furthermore, victims, isolates, and cynics are likely to participate in protests at different rates. I now present these findings in detail.

Testing Perceptions and Exposure Hypotheses

In Table 3, I present models testing the first two hypotheses. I first find support for H_{1a} that those who perceive corruption to more likely to protest and no support for H_{1b} that perceived corruption depresses protest participation. Controlling for sociopolitical and demographic variables, I find that those who perceive corruption as common have between a 2 and 3 percent increased likelihood of protest participation relative to those who do not view corruption as common. According to these results, dire perceptions of high levels of corruption may attract protesters rather than deter them.

I also find support for H_2 that exposure to corruption contributes positively to protest participation. Those who are exposed to corruption are 3 percent more likely than those without exposure to corruption to participate in protests. Exposed people are more driven toward protest participation. This result supports the literature's prior findings of a positive relationship between exposure and protest activity.

A number of control variables are also statistically significant and take on anticipated directions. I find that executive trust has a significant, small, and negative relationship with protest participation. Political satisfaction also has a negative association with protest participation. In contrast, civic activism is positively associated with protest participation. This effect size is large and statistically significant. I also find that education, wealth, and urbanity increase the likelihood of protest participation, while female and older survey respondents were less likely to participate in protests.

	Perception Model	Exposure Model	Both
Intercept	0.26 (0.76)	0.82 (0.76)	0.69 (0.76)
Corruption			
Perception	0.02 (0.00)		0.02 (0.00)
Exposure		0.02 (0.00)	0.02 (0.00)
Sociopolitical Controls			
Executive Trust	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)
Political Satisfaction	− 0.01 (0.00)	− 0.01 (0.00)	− 0.00 (0.00)
Civic Activism	0.04 (0.00)	0.04 (0.00)	0.04 (0.00)
Life Satisfaction	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)
Demographic Controls			
Education	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)
Wealth	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Female	− 0.03 (0.00)	− 0.03 (0.00)	− 0.03 (0.00)
Age	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Urban	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)
Survey Wave	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)
AIC	19415.31	19403.83	19386.95
BIC	19542.49	19531.01	19523.22
Log Likelihood	−9693.65	−9687.91	−9678.48
Num. obs.	65139	65139	65139
Num. groups: country	28	28	28
Var: country (Intercept)	0.00	0.00	0.00
Var: Residual	0.08	0.08	0.08

Bold coefficients indicate significance at $p < 0.05$.

Table 3: The Effects of Corruption Perceptions and Exposure on Protest Participation

This section shows that corruption perceptions and corruption exposure have comparable effects on protest participation likelihood. In the next section, I use differences that exist between the corruption perceptions and exposure to derive corruption intolerance group measures. I use these measures to analyze the likelihoods of protest participation. The results in the next section show that these corruption intolerance groups highlight the importance of a holistic approach toward corruption measurement in the context of studying attitudinal effects on protest participation.

Testing Corruption Intolerance Hypotheses

Having tested hypotheses borne out of the existing literature, I now turn to the hypotheses that test the corruption intolerance approach. I present results in Table 4. Each model simultaneously includes three corruption intolerance groups, excluding a reference group. This strategy allows me to better compare the effect sizes of different corruption intolerance groupings against one another. In short, the results show that victims have the highest likelihood of protest participation, isolates have the second-highest likelihood of protest participation, cynics have the third-highest likelihood of protest participation, and pragmatists have the lowest likelihood of protest participation. The results support hypotheses H_3 – H_6 . The control variable results largely match those of the previous model.

Victims are the most likely to participate in protest actions. Relative to pragmatists, victims have a 4 percent higher likelihood of protesting. Relative to cynics, victims have a 2 percent higher likelihood of participating in protests. Relative to isolates, victims are 1 percent more likely to participate in protests, although this difference is not statistically significant at conventional levels. These results generally support expectation in H_3 that victims have the highest likelihood of protests relative to all other groups.

	V-I-C Model	V-I-P Model	V-C-P Model	I-C-P Model
Intercept	0.72 (0.76)	0.74 (0.76)	0.74 (0.76)	0.75 (0.76)
Corruption				
Victim	0.04 (0.01)	0.02 (0.01)	0.01 (0.01)	
Isolate	0.02 (0.00)	0.01 (0.01)		−0.01 (0.01)
Cynic	0.02 (0.00)		−0.01 (0.01)	− 0.02 (0.01)
Pragmatist		− 0.02 (0.00)	− 0.02 (0.00)	− 0.04 (0.01)
Sociopolitical Controls				
Presidential Trust	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)
Political Satisfaction	− 0.00 (0.00)	− 0.00 (0.00)	− 0.00 (0.00)	− 0.00 (0.00)
Civic Activism	0.04 (0.00)	0.04 (0.00)	0.04 (0.00)	0.04 (0.00)
Life Satisfaction	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)
Demographic Controls				
Education	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)
Wealth	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Female	− 0.03 (0.00)	− 0.03 (0.00)	− 0.03 (0.00)	− 0.03 (0.00)
Age	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Urban	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)
Survey Wave	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)
AIC	19395.83	19395.83	19395.83	19395.83
BIC	19541.18	19541.18	19541.18	19541.18
Log Likelihood	−9681.92	−9681.92	−9681.92	−9681.92
Num. obs.	65139	65139	65139	65139
Num. groups: country	28	28	28	28
Var: country (Intercept)	0.00	0.00	0.00	0.00
Var: Residual	0.08	0.08	0.08	0.08

Bold coefficients indicate significance at $p < 0.05$.

Table 4: The Effect of Corruption Intolerance on Protest Participation

Isolates are the second-most likely to participate in protests. Relative to pragmatists, isolates are associated with a 2 percent higher likelihood of protest participation. Relative to cynics, isolates have a statistically insignificant 1 percent higher likelihood of participating in protests. Relative to

victims, isolates are 1 percent less likely to participate in protests, although this difference is also not statistically significant. The magnitudes associated with isolates in the results mostly support H_4 in spite of some higher standard errors for the isolate coefficients in models where the reference category is either of the neighboring groups (cynics and victims).

Cynics are associated with the third-highest likelihoods of protest participation. Relative to pragmatists, cynics have a 2 percent higher likelihood of participating in a protest. Relative to isolates, victims have a statistically insignificant 1 percent depressed likelihood of participating in protests. Relative to victims, cynics are 2 percent less likely to participate in protests. These results support the expectation of H_5 that cynics have the third-highest likelihood of protests relative to other groups.

Lastly, the results show that pragmatists are least likely to protest. Relative to cynics, pragmatists have a 2 percent lower likelihood of participating in a protest. Relative to isolates, pragmatists have a 2 percent lower likelihood of participating in protests. Relative to victims, pragmatists are 4 percent less likely to participate in protests. In each model, the differences between pragmatists and the reference categories are statistically significant, suggesting strong support for H_6 that pragmatists are the least likely among all groups to participate in protests.

In disentangling the ways in which people think about corruption, these findings illustrate how corruption affects protest participation. First, the findings show how different corruption intolerance groups are associated with different patterns of protest participation. Second, these findings suggest that corruption contributes to relative deprivation. Those who feel the most victimized by corruption are indeed the ones who are most likely to engage in protest activity. In contrast, those who are least victimized are also the least likely to participate in protest activity. That being said, mere exposure to corruption can also propel protest participation among those who feel as though

corruption is uncommon.

These findings also highlight the difficulties of using corruption to mobilize protesters. Scholars suggest that prior protest mobilization predicts future mobilization (McAdam 1986; Finkel and Muller 1998; Smyth 2018). If this were the case, only a minority of survey respondents are reliable protest participants. The proportion of respondents belonging to corruption intolerance groups most likely to engage in protests (victims, isolates, or cynics) represent only about one-quarter of all those surveyed in the LITS surveys. In other words, a mere quarter of survey participants have a positive likelihood of protest participation. Moreover, these groups are associated with different likelihoods of protest participation. These findings suggest the presence of a large barrier to mobilizing protesters around a corruption frame.

Robustness Checks

In addition to the robustness checks already mentioned (estimations with the excluded LITS countries, a logistic model specification, and a fixed effects model specification), I also use data from the sixth round of the Afrobarometer (Appendix E), implement a nearest neighbor matching method to correct for imbalances in the treatment/control corruption intolerance groups (Appendix F), and test for the moderating effect that civic activity has on corruption intolerance in predicting protest participation (Appendix G). In short, Afrobarometer results and re-estimation after correcting for data imbalances support support the above findings. I also find evidence of an interaction effect between civic activity and corruption intolerance.

Conclusion

The existing dichotomy between the effects of corruption perceptions versus corruption exposure on protest participation leads to contradictory findings. In evaluating the ways in which different types of corruption tolerance affect protest participation, this paper has 1) developed an approach that captures why findings about the effects of perceptions and exposure on protest participation contradict one another; and 2) demonstrated the value in paying closer attention to how individuals interpret and tolerate corruption. In comparing corruption perceptions with corruption exposure, I have developed a classification scheme that separates individuals into one of four groups: 1) those who are exposed to corruption and believe corruption to be common (victims); 2) those who are exposed to corruption but do not believe corruption to be common (isolates); 3) those who are not exposed to corruption but believe corruption to be common (cynics); and 4) those who are neither exposed to corruption nor believe corruption to be common (pragmatists).

I use LITS survey data to develop measures that reflect the differences in these groups. After testing their effects on protest participation, I find that victims are the most likely candidates for protest participation while pragmatists are the least likely candidates. At the same time, I also find that isolates are also more likely than others to participate in protests, while cynics are less likely than others to participate in protests. These findings support the notion that the ways in which people perceive corruption relative to their exposure to corruption influence their political activity.

My findings have two broader implications. First, corruption has a heterogeneous effect on people's protest behavior. Only about a quarter of people are potential protest participants. Protest organizers interested in mobilizing potential participants around the idea of corruption should tailor messages toward the kinds of people who are most likely to join. Second, rather than try to

convince all people of the problems that corruption poses, protest organizers should concentrate on convincing those who have experienced corruption that corruption is a major threat to their livelihoods, as the most potent combination of factors is having experienced corruption and believing in corruption's broader threat.

What this paper does not show is whether the proposed corruption intolerance classification system is a better predictor of protest participation than mere perceptions and exposure measures. Although the paper makes the case that differentiating among types of intolerance can predict protest participation, it does not disentangle among different kinds of protest participation. For instance, some individuals may be more likely to be early participants in protest movements, while others choose to participate at later stages of movements. Further work would be necessary to explore these issues.

The findings in this paper are relevant to students of contentious politics and corruption, as it bridges the gap between the two literatures. Despite increased scholarly attention to the topic of corruption and protest participation, the body of literature presents an unclear picture of how corruption affects protest participation. This paper has sought to resolve this debate by proposing a new way to understand how individuals evaluate corruption and how these evaluations affect their political behavior.

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Appendix for Corruption Intolerance and Protest Participation

April 3, 2019

A. Life in Transition Survey Data Coverage for Baseline Estimations

	LITS II (2010)	LITS III (2016)
Poland	1484	1415
Hungary	934	1321
Czech Republic	949	1450
Slovakia	876	1400
Albania	954	1401
Montenegro	900	1277
Macedonia	1017	1313
Croatia	936	1399
Serbia	1424	1270
Bosnia and Herzegovina	1032	1381
Kosovo	1002	1356
Slovenia	905	1356
Bulgaria	898	1323
Moldova	827	1427
Romania	1007	1323
Russia	1280	1319
Estonia	860	1309
Latvia	856	1311
Lithuania	920	1384
Ukraine	1421	1433
Belarus	674	1262
Armenia	804	1432
Georgia	856	1298
Azerbaijan	878	1140
Tajikistan	954	1431
Kyrgyzstan	932	1385
Kazakhstan	844	1332
Mongolia	788	1479

Table 1: Country-Year Coverage

B. Hierarchical Logistic Regression Results

	Perception Model	Exposure Model	Victim Model	Isolate Model	Cynic Model	Pragmatist Model
Intercept	0.99 (9.76)	8.59 (9.80)	8.05 (9.82)	8.28 (9.82)	8.39 (9.83)	8.51 (9.83)
Corruption						
Perception	0.24 (0.04)					
Exposure		0.33 (0.04)				
Victim			0.45 (0.07)	0.22 (0.08)	0.12 (0.08)	
Isolate			0.34 (0.05)	0.11 (0.06)		−0.12 (0.08)
Cynic			0.23 (0.04)		−0.11 (0.06)	− 0.22 (0.08)
Pragmatist				− 0.23 (0.04)	− 0.34 (0.05)	− 0.45 (0.07)
Sociopolitical Controls						
Executive Trust	−0.02 (0.01)	−0.02 (0.01)	−0.02 (0.01)	−0.02 (0.01)	−0.02 (0.01)	−0.02 (0.01)
Political Satisfaction	− 0.06 (0.01)	− 0.06 (0.01)	− 0.06 (0.01)	− 0.06 (0.01)	− 0.06 (0.01)	− 0.06 (0.01)
Civic Activism	0.34 (0.02)	0.34 (0.02)	0.34 (0.02)	0.34 (0.02)	0.34 (0.02)	0.34 (0.02)
Life Satisfaction	−0.00 (0.01)	−0.01 (0.01)	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)
Demographic Controls						
Education	0.24 (0.01)	0.24 (0.01)	0.24 (0.01)	0.24 (0.01)	0.24 (0.01)	0.24 (0.01)
Wealth	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)
Female	− 0.35 (0.03)	− 0.35 (0.03)	− 0.35 (0.03)	− 0.35 (0.03)	− 0.35 (0.03)	− 0.35 (0.03)
Age	0.01 (0.00)	0.01 (0.00)	0.01 (0.00)	0.01 (0.00)	0.01 (0.00)	0.01 (0.00)
Urban	0.30 (0.03)	0.30 (0.03)	0.30 (0.03)	0.30 (0.03)	0.30 (0.03)	0.30 (0.03)
Survey Wave	−0.00 (0.00)	−0.01 (0.00)	−0.01 (0.00)	−0.01 (0.00)	−0.01 (0.00)	−0.01 (0.00)
Num. obs.	65139	65139	65139	65139	65139	65139
Num. groups	28	28	28	28	28	28

Bold coefficients indicate significance at $p < 0.05$.

Table 2: Logistic Hierarchical Models

C. Fixed Effects Linear Probability Model

	Perception Model	Exposure Model	Victim Model	Isolate Model	Cynic Model	Pragmatist Model
Corruption						
Perception	0.02* [0.01; 0.03]					
Exposure		0.02* [0.02; 0.03]				
Victim			0.04* [0.02; 0.05]	0.02* [0.00; 0.03]	0.01 [−0.00; 0.02]	
Isolate			0.03* [0.02; 0.03]	0.01 [−0.00; 0.02]		−0.01 [−0.02; 0.00]
Cynic			0.02* [0.01; 0.03]		−0.01 [−0.02; 0.00]	− 0.02* [−0.03; −0.00]
Pragmatist				− 0.02* [−0.03; −0.01]	− 0.03* [−0.03; −0.02]	− 0.04* [−0.05; −0.02]
Sociopolitical Controls						
Executive Trust	−0.00 [−0.00; 0.00]	−0.00 [−0.00; 0.00]	−0.00 [−0.00; 0.00]	−0.00 [−0.00; 0.00]	−0.00 [−0.00; 0.00]	−0.00 [−0.00; 0.00]
Political Satisfaction	− 0.00* [−0.01; −0.00]	− 0.00* [−0.01; −0.00]	− 0.00* [−0.01; −0.00]	− 0.00* [−0.01; −0.00]	− 0.00* [−0.01; −0.00]	− 0.00* [−0.01; −0.00]
Civic Activism	0.04* [0.04; 0.05]	0.04* [0.04; 0.05]	0.04* [0.04; 0.05]	0.04* [0.04; 0.05]	0.04* [0.04; 0.05]	0.04* [0.04; 0.05]
Life Satisfaction	−0.00 [−0.00; 0.00]	−0.00 [−0.00; 0.00]	−0.00 [−0.00; 0.00]	−0.00 [−0.00; 0.00]	−0.00 [−0.00; 0.00]	−0.00 [−0.00; 0.00]
Demographic Controls						
Education	0.02* [0.02; 0.02]	0.02* [0.02; 0.02]	0.02* [0.02; 0.02]	0.02* [0.02; 0.02]	0.02* [0.02; 0.02]	0.02* [0.02; 0.02]
Wealth	0.00* [0.00; 0.00]	0.00* [0.00; 0.00]	0.00* [0.00; 0.00]	0.00* [0.00; 0.00]	0.00* [0.00; 0.00]	0.00* [0.00; 0.00]
Female	− 0.03* [−0.03; −0.02]	− 0.03* [−0.03; −0.02]	− 0.03* [−0.03; −0.02]	− 0.03* [−0.03; −0.02]	− 0.03* [−0.03; −0.02]	− 0.03* [−0.03; −0.02]
Age	0.00* [0.00; 0.00]	0.00* [0.00; 0.00]	0.00* [0.00; 0.00]	0.00* [0.00; 0.00]	0.00* [0.00; 0.00]	0.00* [0.00; 0.00]
Urban	0.02* [0.02; 0.03]	0.02* [0.02; 0.03]	0.02* [0.02; 0.03]	0.02* [0.02; 0.03]	0.02* [0.02; 0.03]	0.02* [0.02; 0.03]
Survey Wave	−0.00 [−0.00; 0.00]	−0.00 [−0.00; 0.00]	−0.00 [−0.00; 0.00]	−0.00 [−0.00; 0.00]	−0.00 [−0.00; 0.00]	−0.00 [−0.00; 0.00]
R ²	0.05	0.05	0.05	0.05	0.05	0.05
Adj. R ²	0.05	0.05	0.05	0.05	0.05	0.05
Num. obs.	65139	65139	65139	65139	65139	65139
RMSE	0.28	0.28	0.28	0.28	0.28	0.28

Bold coefficients indicate significance at $p < 0.05$. Robust standard errors in parentheses.

Table 3: Fixed Effects Models

D. Results with Data From Excluded Countries

In Table 4, I use Life in Transition survey data from countries excluded in the baseline regressions to test effects of corruption perceptions, exposure, and intolerance groupings on likelihood of protest participation using hierarchical models with random country effects. I use unbalanced data from the following countries in these tests: Cyprus (2016), Greece (2016), France (2010), Germany (2010 and 2016), Italy (2010 and 2016), Turkey (2010 and 2016), Sweden (2010), and the United Kingdom (2010). The results support those from the baseline models.

	Perception Model	Exposure Model	Victim Model	Isolate Model	Cynic Model	Pragmatist Model
Intercept	-13.75 (3.43)	-13.14 (3.44)	-13.25 (3.44)	-13.18 (3.44)	-13.17 (3.44)	-13.15 (3.44)
Corruption						
Perception	0.07 (0.01)					
Exposure		0.07 (0.02)				
Victim			0.10 (0.04)	0.03 (0.04)	0.02 (0.05)	
Isolate			0.07 (0.03)	0.01 (0.03)		-0.02 (0.05)
Cynic			0.07 (0.01)		-0.01 (0.03)	-0.03 (0.04)
Pragmatist				-0.07 (0.01)	-0.07 (0.03)	-0.10 (0.04)
Sociopolitical Controls						
Executive Trust	-0.02 (0.00)	-0.02 (0.00)	-0.02 (0.00)	-0.02 (0.00)	-0.02 (0.00)	-0.02 (0.00)
Political Satisfaction	-0.01 (0.00)	-0.01 (0.00)	-0.01 (0.00)	-0.01 (0.00)	-0.01 (0.00)	-0.01 (0.00)
Civic Activism	0.06 (0.00)	0.06 (0.00)	0.06 (0.00)	0.06 (0.00)	0.06 (0.00)	0.06 (0.00)
Life Satisfaction	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Demographic Controls						
Education	0.04 (0.00)	0.04 (0.00)	0.04 (0.00)	0.04 (0.00)	0.04 (0.00)	0.04 (0.00)
Wealth	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Female	-0.06 (0.01)	-0.06 (0.01)	-0.06 (0.01)	-0.06 (0.01)	-0.06 (0.01)	-0.06 (0.01)
Age	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Urban	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Survey Wave	0.01 (0.00)	0.01 (0.00)	0.01 (0.00)	0.01 (0.00)	0.01 (0.00)	0.01 (0.00)
AIC	14693.56	14705.05	14700.06	14700.06	14700.06	14700.06
BIC	14798.41	14809.90	14819.88	14819.88	14819.88	14819.88
Log Likelihood	-7332.78	-7338.52	-7334.03	-7334.03	-7334.03	-7334.03
Num. obs.	13215	13215	13215	13215	13215	13215
Num. groups: country	8	8	8	8	8	8
Var: country (Intercept)	0.01	0.01	0.01	0.01	0.01	0.01
Var: Residual	0.18	0.18	0.18	0.18	0.18	0.18

Bold coefficients indicate significance at $p < 0.05$.

Table 4: Excluded LITS Countries

E. Afrobarometer Regression Results

I use the sixth round of the Afrobarometer surveys, completed in 2016, to retest my expectations in a different context. I use counterpart questions from the Afrobarometer that match those from the LITS barometer. I present results from the model estimations in Table 5. The results support the LITS data tests.

	Perception Model	Exposure Model	Victim Model	Isolate Model	Cynic Model	Pragmatist Model
Intercept	0.10 (0.01)	0.09 (0.01)	0.09 (0.01)	0.11 (0.01)	0.16 (0.01)	0.17 (0.01)
Corruption						
Perception	0.02 (0.00)					
Exposure		0.07 (0.01)				
Victim			0.08 (0.01)	0.06 (0.01)	0.00 (0.01)	
Isolate			0.08 (0.01)	0.05 (0.01)		−0.00 (0.01)
Cynic			0.02 (0.00)		− 0.05 (0.01)	− 0.06 (0.01)
Pragmatist				− 0.02 (0.00)	− 0.08 (0.01)	− 0.08 (0.01)
Sociopolitical Controls						
Executive Trust	− 0.01 (0.00)	− 0.01 (0.00)	− 0.01 (0.00)	− 0.01 (0.00)	− 0.01 (0.00)	− 0.01 (0.00)
Political Satisfaction	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Civic Activism	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)
Life Satisfaction	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)	−0.00 (0.00)
Demographic Controls						
Education	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)
Wealth	− 0.00 (0.00)	− 0.00 (0.00)	− 0.00 (0.00)	− 0.00 (0.00)	− 0.00 (0.00)	− 0.00 (0.00)
Female	− 0.02 (0.00)	− 0.02 (0.00)	− 0.02 (0.00)	− 0.02 (0.00)	− 0.02 (0.00)	− 0.02 (0.00)
Age	− 0.00 (0.00)	− 0.00 (0.00)	− 0.00 (0.00)	− 0.00 (0.00)	− 0.00 (0.00)	− 0.00 (0.00)
Urban	0.02 (0.00)	0.02 (0.00)	0.01 (0.00)	0.01 (0.00)	0.01 (0.00)	0.01 (0.00)
AIC	15326.19	15161.27	15157.02	15157.02	15157.02	15157.02
BIC	15438.40	15273.48	15286.50	15286.50	15286.50	15286.50
Log Likelihood	−7650.09	−7567.63	−7563.51	−7563.51	−7563.51	−7563.51
Num. obs.	41421	41421	41421	41421	41421	41421
Num. groups: country	31	31	31	31	31	31
Var: country (Intercept)	0.00	0.00	0.00	0.00	0.00	0.00
Var: Residual	0.08	0.08	0.08	0.08	0.08	0.08

Bold coefficients indicate significance at $p < 0.05$.

Table 5: The Effect of Corruption Intolerance on Protest Participation using AfroBarometer Data

F. Correcting for Imbalanced Data

Causal inference based on the unbalanced treatment/control groups in the core corruption binary independent variables may produce selection bias that favors the more predominant group, whether it be the treatment or control group. To correct for this bias, I use nearest neighbor matching to pre-process the data before testing the independent treatment effects of each corruption intolerance group predictor on protest participation. I use all covariates except for the respondent's country of residence to create matched treatment and control groups. I then use the pre-processed data estimate corruption intolerance group treatment effects using linear probability models with country fixed effects. The results, shown in Table 6, suggest that my results are robust to the imbalanced data correction strategy.

	Perception Model	Exposure Model	Victim Model	Isolate Model	Cynic Model	Pragmatist Model
Perception	0.02 (0.00)					
Exposure		0.03 (0.00)				
Victim			0.04 (0.01)			
Isolate				0.02 (0.01)		
Cynic					0.01 (0.00)	
Pragmatist						-0.04 (0.00)
AIC	8529.51	5889.22	2266.55	3748.44	6277.73	10812.21
BIC	8561.61	5919.79	2292.92	3777.29	6308.75	10845.79
Log Likelihood	-4260.75	-2940.61	-1129.28	-1870.22	-3134.86	-5402.11
Num. obs.	22634	15394	5384	10010	17250	32644
Num. groups: country	28	28	28	28	28	28
Var: country (Intercept)	0.00	0.00	0.00	0.00	0.00	0.00
Var: Residual	0.08	0.09	0.09	0.08	0.08	0.08

Bold coefficients indicate significance at $p < 0.05$.

Table 6: The Independent Effects of Corruption Intolerance on Protest Participation using Matched Data

G. Civic Activity and Corruption Intolerance Interaction Effects

An interaction between corruption intolerance groups with higher levels of civic activism may drive protest participation. I re-estimate the baseline models but now include an interaction between each corruption intolerance group and the civic activism dummy variables. In Table 7, I present a table and interaction effect plots. I also plot the interaction effects in Figure 1. There does appear to be a moderating effect of corruption intolerance and civic activism on protest participation. Active civil society participation improves the likelihood of protest participation among victims and cynics. Civil society activity, however, also worsens protest participation among pragmatists. Moreover, civil society activity has little moderating effect on the likelihood that corruption isolates participate in protest.

	Victim Model	Isolate Model	Cynic Model	Pragmatist Model
Intercept	0.39 (0.76)	0.72 (0.76)	0.29 (0.76)	0.71 (0.76)
Victim	0.03 (0.01)			
Civic Activism	0.04 (0.00)	0.05 (0.00)	0.04 (0.00)	0.05 (0.00)
Victim*Civic	0.01 (0.01)			
Isolate		0.02 (0.00)		
Isolate*Civic		-0.00 (0.01)		
Cynic			0.01 (0.00)	
Cynic*Civic			0.02 (0.01)	
Pragmatist				-0.02 (0.00)
Pragmatist*Civic				-0.01 (0.00)
Executive Trust	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Political Satisfaction	-0.01 (0.00)	-0.01 (0.00)	-0.01 (0.00)	-0.01 (0.00)
Life Satisfaction	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Education	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)
Wealth	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Female	-0.03 (0.00)	-0.03 (0.00)	-0.03 (0.00)	-0.03 (0.00)
Age	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Urban	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)	0.02 (0.00)
Survey Wave	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
AIC	19435.71	19440.54	19435.93	19384.60
BIC	19571.98	19576.80	19572.19	19520.86
Log Likelihood	-9702.86	-9705.27	-9702.96	-9677.30
Num. obs.	65139	65139	65139	65139
Num. groups: country	28	28	28	28
Var: country (Intercept)	0.00	0.00	0.00	0.00
Var: Residual	0.08	0.08	0.08	0.08

Bold coefficients indicate significance at $p < 0.05$.

Table 7: Intolerance Groups and Civic Activism Interaction

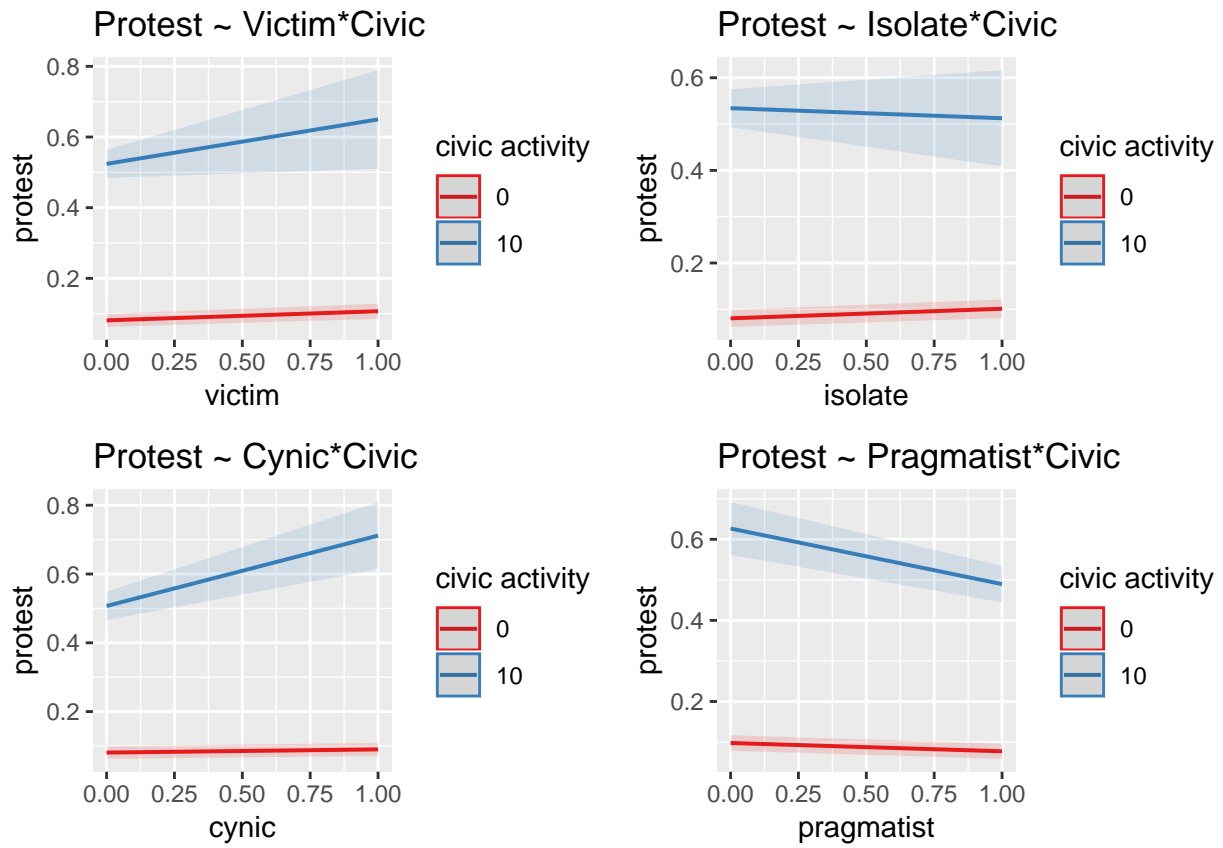


Figure 1: Interaction Effect Plots