

# Why Democracy Protests Do Not Diffuse<sup>\*</sup>

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# Why Democracy Protests Do Not Diffuse

## Abstract

One of the primary international factors proposed to explain the geographic and temporal clustering of democracy is the diffusion of democracy protests. Democracy protests are thought to diffuse across countries primarily through a demonstration effect, whereby protests in one country cause protests in another based on the positive information that they convey about the likelihood of successful protests elsewhere, and secondarily, through the action of transnational activists. In contrast to this view, we argue, that, in general, democracy protests are not likely to diffuse across countries because the motivation for and the outcome of democracy protests results primarily from domestic processes that are unaffected or undermined by the occurrence of democracy protests in other countries. Our statistical analysis supports this argument. Using daily data on the onset of democracy protests around the world between 1989 and 2011, we found that in this period, democracy protests were not significantly more likely to occur in countries when democracy protests occurred in neighboring countries either in general or in ways consistent with the expectations of diffusion arguments.

Democracy exists in both geographic and temporal clusters (Huntington 1991; Jagers and Gurr 1995; Starr and Lindborg 2003; Brinks and Coppedge 2006; Gleditsch and Ward 2006; Leeson and Dean 2009). At the beginning of the twentieth century, democracy was isolated to a few countries in North America and Western Europe. After World War II, it expanded to Latin America and Asia, toppling military regimes and colonial powers in the process. Shortly after the end of the Cold War, democracy moved into East Central Europe, dislodging deep-rooted communist regimes, and made significant inroads into Africa. Today, democracies comprise about two-thirds of all independent states and constitute the predominant form of government on every continent in the world (Marshall and Gurr 2015). These trends, as well as the slow-changing nature of most domestic correlates of democracy, have led scholars to hypothesize that democracy is not only a function of the domestic conditions within countries, but international factors as well.

One of the primary international factors proposed to explain the geographic and temporal clustering of democracy is the diffusion of democracy protests. Democracy protests, which are mass public demonstrations where the participants demand countries adopt or uphold open and competitive elections, are thought to diffuse primarily through a demonstration effect and secondarily, through transnational activists. According to the former, protests in one country precipitate protests in another based on the positive information they convey about the likelihood of successful protests elsewhere, while according to the latter, they diffuse through the direct actions of activists that provide material, training, and financial support to activists in other countries.

Popular and scholarly depictions of diffusion processes equate protests to waves that spread out in all directions from a single central focal point; to snowballs that grow larger as they engulf countries in their path; and to dominos that topple autocratic regimes one after another after another. As evidence of these processes, scholars point to the large number of countries that have experienced protests at any one time, and to fact that where

protests are believed to have diffused, protesters were aware of earlier protests, made reference to these protests, and adopted similar strategies, tactics, and goals (Bunce and Wolchik 2006; Weyland 2009; Beissinger 2007; Kuran 2011; Mitchell 2012). Meanwhile, fears of protests diffusing have compelled autocrat leaders around the world to undertake measures to prevent protests from occurring in their countries, ranging from the tyrannical (e.g., increased censorship, government purges, and opposition arrests) to the paranoid (e.g., banning protest symbols such as Jasmine flowers and the color orange).

In contrast to these expectations, we argue that, in general, democracy protests are not likely to diffuse across countries because the motivation for and the outcome of democracy protests results primarily from domestic processes that are either unaffected or undermined by the occurrence of democracy protests in other countries. Democracy protests arise when strong public sentiment against governments derived from political, social, or economic grievances is triggered by internal events, such as elections and economic crises, which facilitate collective action against governments by making individuals cognizant of their shared opposition to regimes. The occurrence of democracy protests in neighboring countries does not generally raise this level of discontent, nor does it generally facilitate collective action on behalf of it, because most democracy protests in neighboring countries are poor models for protests elsewhere, and often lead governments to undertake measures to block protests from occurring in their own countries.

To evaluate our argument, we conduct the first cross-national and longitudinal statistical analysis of the diffusion of democracy protests. Existing studies of the diffusion of democracy across countries show a strong statistical correlation between the presence of democracy in one country and the presence of democracy in neighboring countries and/or the world overall, but they are unable to distinguish empirically among the different mechanisms, like protests, through which democracy might diffuse (Starr 1991; Jagers and Gurr 1995; Starr and Lindborg 2003; Brinks and Coppedge 2006; Gleditsch and Ward 2006; Franzese and

Hays 2008; Leeson and Dean 2009; Mainwaring and Pérez-Liñán 2014). To understand these mechanisms, it is essential to examine the diffusion of democracy protests apart from the diffusion of democracy, because although protests themselves might diffuse, their political successes might not (Saideman 2012). The protest diffusion literature, in contrast, shows the influence of democracy protests on each other, but its conclusions are not necessarily generalizable since they are based on qualitative descriptions of the most prominent waves of democracy protests (Bunce and Wolchik 2006; Beissinger 2007; Weyland 2009, 2012; della Porta 2014).

Our statistical analysis supports our argument. Using daily data on the onset of democracy protests around the world between 1989 and 2011, we found that in this period, democracy protests were not significantly more likely to occur in countries when democracy protests occurred in neighboring countries, regardless of the number or size of these protests. Democracy protests were also not more likely to occur in countries in this period in ways consistent with diffusion arguments. That is, democracy protests were not significantly more likely to occur in countries when protests in neighboring countries were not repressed or were able to extract political concessions from governments. Nor, were they more likely to occur when neighboring protests occurred in influential countries or politically and socio-economically similar countries. These findings do not necessarily indicate that democracy does not diffuse, but that if it does, it likely does not diffuse as a result of the diffusion of democracy protests.

### **How Democracy Protests Are Thought to Diffuse**

Democracy protests are believed to diffuse primarily through demonstration effects, and secondarily, through transnational activists. According to the concept of demonstration effects, protests spread across borders because their occurrence in one country raises the expectations of activists in another that similar actions are likely to be successful in their own country (Tarrow 1991, 1994; McAdam and Rucht 1993; Soule 1997; Givan, Roberts and

Soule 2010). Demonstrations effects are believed to be the main reason why anti-regime contention rapidly spread throughout Europe in 1848 (Weyland 2009; Bamert, Gilardi and Wasserfallen 2015), in East Central Europe in 1989 and as part of the Colored Revolutions more than a decade later (Kuran 1991; Lohmann 1994; Beissinger 2007; Mitchell 2012), and more recently, in the Middle East and North Africa during the Arab Spring (Kuran 2011).

As evidence of the presence of demonstration effects in these four historical periods, scholars point to the fact that people involved in subsequent protests were aware of earlier protests, referenced events related to them, and used these protests as rallying cries to urge people in their own countries to rise up against their governments. They also point to the fact that the protests were massive in scale and arose unexpectedly and spontaneously in many different contexts in short succession of each other. In the case of the 1848 Revolutions, protests occurred in three countries (i.e., Germany, Vienna, and Denmark) less than one month after Louis Philippe was dethroned in France. Similarly, within one month of Tunisia's Jasmine Revolution, protests erupted in Algeria and Jordan, and arose shortly thereafter in Egypt and Yemen. The Colored Revolutions occurred over longer time intervals, but the 1989 protests in East Central Europe occurred in close succession of each other.

In support of diffusion theories, scholars also note that subsequent protests in these periods used similar frames, strategies, and repertoires as earlier protests (Bunce and Wolchik 2006; Beissinger 2007; Saideman 2012; della Porta 2014). Most of the Colored Revolutions, for example, were organized around electoral fraud and opposition claims of being robbed of electoral victories. The Arab Spring protests were not similarly organized around a single catalyzing event, but were triggered by different events, including the self-immolation of Mohamed Bouazizi in Tunisia and the death of Khalid Saeed in Egypt. However, particular rallies were organized around similar themes like "A Day of Rage", common occasions like Friday afternoon prayers, and physical spaces such as central squares (Patel 2014). Perhaps even more significantly, protesters in both the Colored Revolutions and the Arab Spring

protests mobilized supporters through social media outlets, such as Twitter and Facebook.

Transnational activists are also thought to play a role, albeit a less significant one, in the diffusion of democracy protests in these periods. Transnational activists, like Otpor! and Pora, operate through direct channels, including interpersonal contact and word-of-mouth, as well as indirect channels, including the media and third-party intermediaries (Tarrow 2005). According to diffusion arguments, transnational activists help protests diffuse by disseminating information about protests in their countries to activists in other countries, and by providing these activists with training and resources to organize their own protests (Bunce and Wolchik 2006; Beissinger 2007). The Serbian opposition group, Otpor!, which organized the Bulldozer Revolution, is known to have trained activists responsible for the Rose Revolution in Georgia, as well as members of Pora, which played a central role in the Orange Revolution.

Outside the Colored Revolutions, though, most research finds that transnational activists have played little role in the development of democracy protests in other countries, including the 1848 Revolutions (Weyland 2009, 2012), the 1989 protests in East Central Europe (Kotkin 2009; Kuran 1991; Lohmann 1994), and the Arab Spring protests (Gana 2013).<sup>1</sup> In these periods, transnational activities were not only few in number, but were also isolated from activists in other countries and lacked the necessary resources to export protests to other countries (Lynch 2012; Saideman 2012; Weyland 2012). Autocratic leaders around the globe have nonetheless blamed the Colored Revolutions and the Arab Spring protests on foreigners, especially the United States, in order to discredit them, claiming that these protests are a form of geopolitical warfare aimed at toppling their regimes.

Diffusion arguments, either in the case of demonstration effects or transnational activists, do not assert that all protests are likely to spread equally across countries, but recognize

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<sup>1</sup>Otpor! has also been accused of training activists in Tunisia through workshops indirectly sponsored by the US government. By most accounts, however, the workshop attendees neither initiated nor organized the Jasmine Revolution (Gana 2013, 151-2).

that whether or not protests diffuse, and what forms they assume, depends on the context in which they arise. According to these arguments, democracy protests are more likely to diffuse to other countries depending on people's awareness of earlier protests, as well as the degree to which earlier protests raise people's expectations about the likely success of protests in their countries. The former is affected by the proximity and importance of countries where protests originate, while the latter is influenced by how governments respond to the earlier protests and the political, economic, and cultural commonalities among countries.

Proximity is thought to raise people's awareness of protests in other countries because people are more likely to interact with people in neighboring countries, share a common language, occupy a common media market, and so forth (Starr 1991; Gleditsch and Ward 2006; Kopstein and Reilly 2000). Proximity is arguably less important today than in previous decades because of modern technologies allowing information to disseminate more quickly to wider audiences. People are also more likely to be cognizant of protests taking place in politically and economically powerful countries, in the view of diffusion arguments, because protests in these countries can have significant consequences for other countries, particularly trading partners and military allies (Elkins 2008).

Democracy protests, according to diffusion arguments, are more likely to raise people's expectations about the likely success of protests in their countries when protests in other countries are successful, defined either in terms of their size or ability to achieve their goals (Buenrostro, Dhillon and Wooders 2007; Bamert, Gilardi and Wasserfallen 2015), and occur in countries with similar socio-economic, political and cultural backgrounds (McAdam, McCarthy and Zald 1996; Bunce and Wolchik 2006; Beissinger 2007; Elkins 2008). Many characteristics of countries are hypothesized to influence diffusion processes in this way including: economic development, democracy, repressiveness, and nationalist sentiment, among others. Where the appropriate context for protests to diffuse does not exist, some diffusion scholars contend that activists adopt other forms of regime contention, such as roundtables and

national conferences, more suitable for their country (della Porta and Tarrow 2012; Bunce, Patel and Wolchik 2013; Weyland 2014).

### **Democracy Protests: Poor Models for Protests Elsewhere**

In contrast to these arguments, we argue that, in general, democracy protests are not likely to diffuse to other countries through either demonstration effects or transnational activists. We consider democracy protests to have diffused from one country to another country if, and only if, protests in the latter would not have occurred had protests not occurred in the former.<sup>2</sup> Our understanding of diffusion does not require democracy protests to be either necessary or sufficient conditions for democracy protests to occur elsewhere. That is, democracy protests can arise for reasons other than the occurrence of democracy protests in other countries and the onset of democracy protests in other countries alone does not have to be enough for democracy protests to occur in other countries. Nor does it rule out the possibility that democracy protests are larger or occur sooner when protests arise in other countries due to the excitement and attention surrounding earlier protests.

Democracy protests are not likely to diffuse to other countries because democracy protests arise primarily from domestic processes, which are either unaffected or undercut by the occurrence of democracy protests in other countries. Although democracy protests arise primarily from domestic processes, they do not arise only, or necessarily, as a result of a strong public sentiment in favor of democracy. Many people who participate in democracy protests do not do so out of an intrinsic desire for democracy, but for other reasons including, most notably, opposition to the existing government in general (Beissinger 2013; Chaisty and Whitefield 2013). At the same time, many people who desire democracy are unwilling to organize democracy protests, or participate in them, because they are unaware of the extent

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<sup>2</sup>For an alternative view, see: Weyland (2014), who argues that “[s]ince external stimuli [for a political transformation] do not always lead to successful emulation, diffusion should not be defined by increased chances of emulation” (32).

to which others oppose the regime, question consequently the likely success of protests in their own countries, and fear the consequences of failed actions (Kuran 1989).

Elections and economic crises are two important factors shown to trigger democracy protests because they not only generate opposition to the regime, but also make people aware of their shared opposition to it. In the run-up to elections in authoritarian regimes, leaders often either suspend elections, alter the electoral system in their favor, or commit electoral fraud in order to remain in power (Tucker 2007; Hyde and Marinov 2014; Bunce and Wolchik 2013; Beaulieu 2014). Not only do these actions provoke anger against the regime, but they also suggest to the public that opposition to the regime is strong, for if the regime were genuinely popular, it would not have to resort to these actions.

Economic crises also raise societal discontent for governments in general, and authoritarianism in particular, because governments wield significant responsibility over their countries' economies, and because even when governments are not directly responsible for crises, the public often blames governments for crises regardless, lacking information about the real causes of crises, which are often highly technical, complicated, and contested (Brancati 2016). As a result, the public tends to evaluate a government's job performance based on fluctuations in their own well-being, grading it highly when the public is doing well economically, and poorly when it is not. This discontent increases support for opposition candidates who are more likely to organize protests in election periods when opposition support is high, especially when opposition candidates lose elections by small margins of victory, because marginal losses suggest to candidates that they could have won the elections had they been clean, and that any protests that the opposition organized would attract wide support.

The occurrence of democracy protests in other countries is not likely to strengthen these motivations and, if anything, is likely to undermine them. Countries are not likely to hold corrupt elections because democracy protests occurred against corrupt elections in other countries. Nor, are they likely to delay elections because this could also incite protests.

After the Bulldozer Revolution, only a handful of countries in East Central Europe delayed elections over the next ten years, and none of these delays were based on fears of Colored-like behavior in their countries, but rather from legal discrepancies about the timing of elections (e.g., Czech Republic 2010 and Uzbekistan 2007); repeat elections (e.g., Serbia 2003 and Moldova 2010); and factional power struggles (e.g., Ukraine 2007).<sup>3</sup> If anything, governments weary of protests taking place against planned elections in their own countries are likely to limit electoral fraud or undertake actions to better obscure it.

Governments are also not more likely to experience economic crises as a result of protests in other countries. The economic repercussions for countries in which protests occur do not themselves generally rise to the level of crises.<sup>4</sup> Therefore, any negative economic repercussions of protests for other countries are likely to be modest as well. Moreover, in some cases, governments with the economic means to do so have undertaken initiatives to strengthen their economies to prevent protests from occurring. Backed by oil-rich economies, the United Arab Emirates tried to prevent Arab Spring protests in the Emirates by cutting food prices, while Saudi Arabia committed to a multi-billion dollar spending increase to raise civil service salaries, create public-sector jobs, and build housing.<sup>5</sup>

While most diffusion arguments recognize that the domestic context matters, diffusion arguments overestimate, in our view, the extent to which international factors are important vis-a-vis domestic factors. Some diffusion arguments argue that protests in neighboring countries provide the permissive conditions for democracy protests to emerge. That is, they see domestic conditions as the underlying reason for democracy protests and the occurrence

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<sup>3</sup>Information regarding the number of countries in which elections were delayed is based on `nelda6` in the “National Elections Across Democracy and Autocracy (NELDA) Dataset” (version 3), authored by Susan D. Hyde and Nikolay Marinov, and the *Global Elections Database* (Brancati 2007).

<sup>4</sup>Between 1989 and 2011, GDP per capita growth was only 1 percentage point lower on average in countries where a democracy protest occurred one year after a protest compared to countries where a protest did not occur. (This difference is statistically significant at the 0.05 level.) However, inflation and unemployed were essentially unchanged. Figures calculated by the authors based on data from (Brancati 2016).

<sup>5</sup>Glen Carey, “Saudi Spending Fuels Fastest Gulf Inflation: Arab Credit,” *Bloomberg News*, 5 March 2013; “UAE Boosts Military Pensions, Seen Pre-empting Unrest,” *Al Arabiya News*, 24 March 2011.

of democracy protests in neighboring countries as their immediate cause. Other diffusion arguments suggests go still further arguing that neighboring protests cause protests to occur in countries even when domestic conditions favoring protests are weak. Beissinger (2007) claims, for example, that “the effect of example is to make action and even successful action materialize in cases in which they would not have otherwise been likely, so that example makes possible action and outcomes that structure alone would not have permitted” (173).

In further contrast to these arguments, we assert that any apparent clustering of democracy protests is likely due to commonalities among countries and not to diffusion, since countries located within the same geographic locales are likely to have similar domestic conditions that make them ripe for protest as a result of their shared physical environments, histories, religions, economic conditions, and so forth. Diffusion arguments also suggest that protests are more likely to diffuse among similar countries (McAdam, McCarthy and Zald 1996; Bunce and Wolchik 2006; Beissinger 2007; Elkins 2008). They contend that this is because activists are more likely to believe that protests in their countries are likely to be successful the more similar their countries are to countries that have experienced protests. We contend, in contrast, it is because the more similar countries are to these countries, the more likely they are to experience protests independent of each other.

Countries, for example, that are similarly-situated geographically may hold elections around the same time because they experience similar weather conditions and avoid months when conditions are likely to dampen electoral turnout, as is often the case in developing countries where floods can significantly hamper people’s ability to turn out at the polls. Economic crises can also be triggered by common exogenous shocks, such as a decline in oil prices or spike in food prices, as in the 1848 Revolutions (Goldstone 1991; Houle, Kayser and Xiang 2016) and the Arab Spring (Joffé 2011; Campante and Chor 2012). In 1989 and the early 1990s, the collapse of the Soviet Union and its repercussions for the repressive capacity of allied states provided the exogenous shock that precipitated protests in East

Central Europe and Africa at this time (Bunce and Wolchik 2013; Bratton and van de Walle 1997).

To be fair to diffusion theories, though, what is argued to spread is not the underlying motivation for protests, but the willingness of people to organize democracy protests based on the inspirational success of protests in neighboring countries. Most democracy protests, however, are unlikely to inspire protests in other countries because they are not successful, and because their success also depends on domestic processes that are not informative of the likely success of protests elsewhere. Almost two-thirds of democracy protests that took place between 1989 and 2011 attracted less than ten thousand participants at their single largest rally (a third attracted less than a thousand), and about the same fraction of protests ended in three days or fewer (Brancati 2016, 28). Moreover, in this period, less than 10% of protests forced governments to step down from power and less than 25% of them extracted political concessions from governments (107). Conversely, about two-thirds of democracy protests in the period were repressed by military or police forces (122; 130-131).

Even successful protests are unlikely to inspire democracy protests in other countries because the success of these protests depends on domestic factors and the repressive capacity of states in particular. State repressive capacity is based not only on the size of the protests – with larger protests being harder to repress than smaller ones, but also on the strength and resources of countries’ domestic security forces – with larger and better funded forces being more likely to repress democracy protests than other forces. The loyalty of these forces depends on a host of other domestic factors, including ideological or personality conflicts, kinship ties, hereditary succession, (Brownlee, Masoud and Reynolds 2015), and so forth.

Moreover, as others have noted, protests in neighboring countries can increase the repressive capacity of states by leading autocrats to undertake initiatives that block the spread of protests (Bratton and van de Walle 1997; Beissinger 2007; Heydemann and Leenders 2011; della Porta and Tarrow 2012; Saideman 2012; Koesel and Bunce 2013; Danneman and Rit-

ter 2014). While, in principle, governments could foster a democratic opening to prevent protests from spreading, governments have generally sought instead to restrict democracy and increase repression. Many authoritarian regimes in East Central Europe cracked down on opponents, including civil society organizations and transnational activists promoting democracy and human rights after the Orange and Tulip Revolutions (Beissinger 2007). Belarus' President Lukashenko purged his regime of potential dissenters and introduced new laws that permitted the use of firearms against protestors. Similarly, governments as far away as China stepped up measures, after the Arab Spring to forestall protests, including increased censorship, police patrols, and arrests of known activists.<sup>6</sup>

Still, the fact that most democracy protests are poor models for other countries does not rule out the possibility that democracy protests spread to other countries because, as Weyland (2009) argues, the public does not assess in any depth whether foreign lessons are applicable to their countries, and miscalculate the odds of successful protests occurring in their countries based on cognitive shortcuts, such as the availability heuristic and the representative heuristic. According to the former, people make decisions based on the information most readily available to them, while according to the latter, they estimate the likelihood of an event occurring based on how much it resembles a prototypical case.

Although we cannot rule out this possibility, we believe that citizens in authoritarian states have a substantial amount of information about their governments' likelihood of repressing protests based on a number of factors, including their own personal experiences and those of their immediate friends and family, non-state controlled forms of media, and the general restrictiveness of their countries' political and legal environments. People are also likely, we contend, to discount the relevance of successful protests in neighboring countries since large protests that extract political concessions from governments are not the prototypical case. Moreover, about 75 percent of all protests between 1989 and 2011 were organized

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<sup>6</sup>James Fallows, "Arab Spring, Chinese Winter," *The Atlantic*, September 2011.

by either political parties (which organized nearly half of them), non-governmental organizations, unions, and religious groups (Brancati 2016, 16). And, as Weyland notes, people are less likely to rely on informational shortcuts today where mass organizations like these exist because these organizations have better access to information, greater processing capacity, and more substantial experience in politics than the public-at-large.

## Analysis

In order to evaluate the importance of diffusion processes to the outbreak of democracy protests in general, we examine statistically the correlation between the occurrence a democracy protest in one country and the prior occurrence of a democracy protest in a neighboring country. Our analysis spans the period between the end of the Cold War in 1989 and the first year of the Arab Spring in 2011 using country-day level data. The latter allows us to determine with certainty whether a protest in one country occurs before that of another, and how much earlier. Most analyses of diffusion processes are coded at the country-year level so that causality is much more difficult to establish. The detailed nature of these data can also help us to distinguish among diffusion and commonalities explanations for any observed clustering of democracy protests in the data by identifying patterns in the ways in which democracy protests are clustered. While some patterns are consistent with both diffusion and commonalities arguments, as explained further in the next section, certain patterns are only consistent with diffusion arguments.

In the analysis, we define neighbors ( $n$ ) in two different ways. The first defines countries as neighbors if the *minimal* distance between them is either 50km or 800km. These distances (and very similar ones) are commonly used to define neighbors in the diffusion literature. The 50km category includes, but is not limited, to all contiguous countries.<sup>7</sup> The second defines two countries as neighbors if they belong to the same geographical region based

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<sup>7</sup>Twenty-three countries do not have any neighbors within 50km of their borders and six of these do not have any neighbors within 800km of their borders.

on the UN Statistics Division’s designation of macro-geographical regions.<sup>8</sup> Neither of these approaches assumes that democracy protests diffuse to the closest neighboring country before diffusing to others further away. The term target ( $t$ ) refers to the country *to* which democracy protests might spread. Targets, if they experience protests, become neighbors in the following observation period.

In the analysis, we evaluate the likelihood of protests to occur in target countries when protests occur in neighboring countries within certain time intervals (i.e., 45, 90 120 days). It is essential to evaluate the likelihood of protests to occur within objective time intervals to avoid defining a temporal clustering of democracy protests endogenously. Although the choice of these particular time intervals is largely arbitrary, we expect, if protests are to diffuse, they should diffuse within a relatively short period of time.<sup>9</sup> In fact, both diffusion and commonalities arguments expect protests to be more likely to cluster in short time intervals because neighboring and target countries are likely to have more in common with each other in these intervals. For diffusion arguments, this is because neighboring countries are likely to serve as better models for protests in other countries the more they have in common, while for commonalities arguments, it is because the more neighboring and target countries have in common, the more likely they are to experience protests independent of each other.

Nevertheless, to address the possibility that diffusion occurs over longer time spans, we conduct two additional analysis. We analyze the likelihood of protests to occur within 365 days of protests in neighboring countries. These results are statistically not significant and reported in the Appendix (Table A1). We also evaluate the likelihood of protests to diffuse

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<sup>8</sup>All 50km neighbors are also 800km neighbors, but only 71% of 50km neighbors and 51% of 800km neighbors belong to the same UN region (based on the final day of the sample, 31 December 2011).

<sup>9</sup>Our analysis cannot tell us whether or not democracy protests occur sooner if democracy protests occur in neighboring countries, only whether or not they occur within a year. Although we think it unlikely, it is still possible, for example, for democracy protests that would have occurred two years after protests in a neighboring country to occur within 16 months due to the neighboring country’s influence.

across election periods. That is, we analyze if when democracy protests occur in response to national elections in a neighboring country, whether or not democracy protests are more likely to occur around the next national elections in a target country. This analysis allow us to detect if, for example, protests were more likely to occur around the 2004 Ukrainian presidential elections because of protests that occurred around Georgia’s 2003 parliamentary elections. We also introduce an additional time component into the analysis by restricting particular models to certain time periods, namely the internet era (24 October 1995 - onwards),<sup>10</sup> the period marking the end of communism (1989-1992),<sup>11</sup> and the first year of the Arab Spring protests (2011). The internet may facilitate the dissemination of information about protests to neighboring countries, thus making diffusion more likely, while most arguments about the diffusion of democracy protests are based on these two time periods.<sup>12</sup>

## Data and Measures

The data and measures we use in the analysis, as well as their relationship to both commonalities and diffusion arguments, are as follows.

### *Democracy Protests*

Democracy protests are defined as mass public demonstrations in which the participants’ primary demand is that countries adopt or uphold open and competitive elections (Brancati 2016). Democracy is understood here in a minimal sense so that protests about human rights, gender equality, the economy, and so forth are not included. To measure democracy protests,

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<sup>10</sup>We define the internet era as the period after the Federal Networking Council passed a resolution defining the internet as a term in 24 October 1995.

<sup>11</sup>We identify 1989 as the start point of the “end of communism” because it is the year the Berlin Wall fell, and 1992 as the endpoint because the Soviet Union dissolved in December 1991. In alternative models, we restrict the analysis to 1989 only.

<sup>12</sup>As a robustness test, we interact neighbor protests with the target country’s internet access (using data on internet users per 100 people from the World Bank) to determine if protests are more likely to occur in target countries when these countries have more access to the internet. The results of this analysis are not significant. See Appendix (Table A2).

we use the democracy protests data in Brancati (2016).<sup>13</sup> Between 1989 and 2011, 310 democracy protests occurred.<sup>14</sup> Protests for which there is some uncertainty as to whether they meet this definition are identified as “borderline protests” and are dropped from the analysis as a robustness test.<sup>15</sup> Using these data, we create the following two measures. *Target democracy protest*, which is the outcome of interest, is a dichotomous variable coded 1 if a democracy protest began in a target country on a given day, and 0 otherwise. *Neighbor democracy protest*, which is the main explanatory variable, is a dichotomous variable coded 1 if on a given day, a protest took place in a neighboring country within the last 45, 90 or 120 days, and 0 otherwise.

To address the possibility that anti-regime contention, in general, is more likely to occur in target countries if democracy protests occur in neighboring countries, we create an additional outcome variable called *target anti-regime contention* using the GDELT Project.<sup>16</sup> GDELT identifies different events that occur around the world on a daily basis between 1979-today using print, broadcast, and web news media in multiple languages. Using the GDELT data, target anti-regime contention is coded 1 if on a given day a demonstration or rally began in a target country demanding a change in institutions, regimes or leadership or the expansion and protection of rights, and 0 otherwise.<sup>17</sup>

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<sup>13</sup>For more detailed information about the definition, cases, and coding procedures used, see: Brancati (2016) (pp. 5-9).

<sup>14</sup>Our analysis includes 289 protests because we drop two protests from the dataset that occurred prior to their countries’ independence according to the CShapes dataset (Weidmann and Gleditsch 2010), and because we drop all protests that broke out when another protest was ongoing in a country.

<sup>15</sup>A total of 27 protests are coded as borderline. A few Arab Spring protests (i.e., Tunisia, December-January 2011; Libya 2011; and Syria 2011) are not coded as democracy protests because open and competitive elections were not a demand of the protests. These cases, so few in number, are unlikely to change the significance of the results. Most other Arab Spring protests are coded as borderline because democracy was not clearly the participants’ primary demand.

<sup>16</sup><http://www.gdeltproject.org/>. Date Accessed: 10 January 2017.

<sup>17</sup>To determine the first day of an event, we researched all events identified as: 1414 (demonstrate for change in institutions, regime); 1411 (demonstrate or rally for leadership change); and 1413 (demonstrate for rights), where the recipient actor was the government and the initiator was a domestic actor, which occurred between 1989 and 2011 using independent sources, and applied the same coding rules for determining the start and end date of democracy protests as described in Brancati (2016, 5-9).

To also account for the possibility that democracy protests are more likely to occur in target countries the more protests take place in neighboring countries as Beissinger (2007, 265) suggests, and the larger these protests are, we also measure the number and size of protests that occur in neighboring countries. *Number of neighbor protests* is calculated as the total number of democracy protests that occurred in neighboring countries in the last 45, 90 or 120 days. *Size of largest neighbor protest* is measured according to the number of people present at the single largest democracy protest in any neighboring country within the last 45, 90 or 120 days. Size is divided into 5 categories: (1) less than 1,000 participants; (2) 1,000-10,000; (3) 10,000-100,000; (4) 100,000-1 million; and (5) 1 million or more. A zero indicates that no protest occurred in a neighboring country. Changes over time in the size of the largest protest are reflected in the coding.

#### *Government Responses to Neighboring Protests*

Diffusion arguments suggest that democracy protests are more likely to occur in a target country if a protest in a neighboring country is not repressed by the government and is able to achieve its political goals. To determine whether this is the case, we built two separate measures of how neighboring governments respond to protests. *Neighbor protest success* is an ordinal variable indicating whether: (1) all democracy protests that occurred in a neighboring country within 45, 90 or 120 days were accommodated by the government; (2) only some were accommodated; or (3) none were accommodated. No protests in any neighboring country is the baseline. An accommodation includes any political concession made to protesters, such as reforms to increase electoral competitiveness, correct electoral fraud, restore suspended or annulled elections, hold elections for unelected offices, or return elected governments to power, as well as the resignation of a country's chief executive (Brancati 2016, 136-146). An accommodation is only coded as such since the day after it was announced. In this period, only 5 concessions were clearly hollow or disingenuous and are dropped from the analyses as

a robustness test.<sup>18</sup>

*Neighbor protest repression* is similarly measured. It is coded: (1) if all democracy protests that occurred in a neighboring country within the last 45, 90 or 120 days were repressed by the government; (2) if only some were repressed; or (3) if none were repressed. No protests in any neighboring country is also the baseline. Repression refers to only acts of force by government military or police forces with the goal of ending the protests. Acts of force used in self-defense or to manage violent crowds are not included. Protests are only coded as repressed since the day after the repression began.

### *Neighbor Characteristics*

Diffusion arguments also suggest that whether or not protests spread to other countries depends on the characteristics of the country in which the protests first took place, especially its influentialness and similarity to target countries. The former affects the degree to which people in target countries are likely to be aware of protests in other countries, while the latter affects the extent to which they are likely to believe that similar protests would be successful in their countries. According to diffusion arguments, the more influential the neighboring country and the more similar it is to the target country, the more likely protests are to diffuse. Commonalities argument are silent as to whether or not protests are more likely to occur in target countries when protests occur in influential neighbors, but suggest that protests should be more likely to occur in target countries the more similar neighboring and target countries are to each other in terms of factors likely to encourage democracy protests.

Our indicators of influentialness are based on four alternative measures: total gross domestic product (GDP); total population (in millions); total military expenditures; and total ground forces, measured as the number of active army personnel and government-controlled

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<sup>18</sup>They include: two cases of unkept promises of reform (e.g., Haiti 2004 and Egypt 2011); one case of tangential reforms (e.g., Russia 2011-2012); and two cases of status quo reforms (e.g., Kuwait 1989-90 and Democratic Republic of Congo 1991).

paramilitary forces in a country. All values for these measures are lagged one year. Higher GDPs, larger populations, greater military expenditures, and larger ground forces are indicative of greater influentialness. Data for the first three measures are based on the *World Development Indicators* (World Bank 2014), while data on the last are based on *The Military Balance* (1988-2011) (IISS 1988-2011).

Using these four measures, we construct eight different indicators of influentialness – one indicator of absolute influence and one indicator of relative influence for each measure. The absolute measures capture the overall influentialness of a neighboring country in the world, while the relative measures capture the influentialness of a neighboring country vis-à-vis a target country. Our measures are based on the most influential neighbor, which allows us to address arguments that whether or not protests diffuse depend not on the influentialness of the first country that experiences a protest, but on whether or not a pivotal case experiences a protest.<sup>19</sup>

To understand how these measures are calculated, consider the following example. *Neighbor population (absolute)* is measured in terms of the population of the largest neighboring country that had a democracy protest in the last 45, 90 or 120 days. If no neighboring country had a democracy protest, this measure takes on the value of 0. The measure is then logged to account for non-linearities.<sup>20</sup> In contrast, *neighbor population (relative)* is defined as the population ratio between the largest n=neighboring country that had a democracy protest in the last 45, 90 or 120 days, and that of the t=target country:  $\frac{\text{population}_n}{\text{population}_t}$ . Accordingly, a value of 1 indicates that both countries are equally influential; a value above 1 indicates that the neighboring country is more influential than the target country, and a value

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<sup>19</sup>Bunce, Patel and Wolchik (2013) argue that the protests diffused in 2011, not because of the protests in Tunisia, but because of those in Egypt, since Egypt is more influential than Tunisia due to its size, the developed character of its opposition, its close alliance with the United States, and because the conditions in Egypt more closely resembled those present in other neighboring states. They make a similar argument in the case of East Germany and protests in 1989.

<sup>20</sup>To account for zeros, we add 0.0001 before logging.

below 1 indicates that the neighboring country is less influential than the target country. A value of 0 indicates that no neighboring country had a democracy protest. The measure is logged so that the ratio is symmetric. We follow the same procedure to create the absolute and relative measures of *neighbor GDP*, *neighbor military spending* and *neighbor military personnel*.

To represent the similarity of target and neighboring countries, we construct four different indicators based on factors shown elsewhere to affect the occurrence of democracy protests – GDP per capita, population, democracy, and state repressiveness. A higher GDP per capita increases demands for democracy by fostering values of autonomy and self-expression according to modernization theories (Inglehart and Welzel 2009), and reducing income inequality according to redistributive arguments (Boix 2003). According to Brancati (2016), however, it reduces the likelihood of democracy protests by minimizing the effects of economic crises. Countries with larger populations are more likely to experience protests because they are generally more heterogenous than smaller countries. Both *GDP per capita (similarity)* and *population (similarity)* are measured using the *World Development Indicators*.

Democracy protests are less likely to occur in more democratic countries than in less democratic ones, even though individuals generally have greater freedom to protest in the former than in the latter, because there are fewer aspects of elections that are not open and competitive in the former than in the latter. However, protests still occur in democracies, particularly around threats to open and competitive elections, such as ban against certain parties and candidates, as well as coups d’etat. We measure democracy with the Polity Index, which codes democracy in a minimal sense based on the independence of executive authority, the openness and competitiveness of executive recruitment, and the regulation and competitiveness of participation (Marshall and Gurr 2015). The index ranges from -10 (strong autocracy) to +10 (strong democracy).

At the same time, protests are less likely to occur in more repressive states because

people are less likely to participate in protests if the odds of being hurt are higher and the likelihood of protests achieving their goals is lower. We measure state repressiveness using the Cingranelli and Richards' physical integrity rights (CIRI PIR) index, which measures physical rights on an 9-point scale based on the extent to which governments protect the populace against torture, political imprisonment, extrajudicial killing, and disappearances.<sup>21</sup> As in the case of the previous measures, for any given observation, the similarity measures take on the value of the most similar neighbor for each quantity of interest to address arguments that protests diffuse based not on first incidences, but pivotal cases.

Whenever there is no protest in a neighboring country, the similarity measures take on the value of 0. When there is a neighbor protest, we calculate the similarity indicators by first taking the ratio of each of these measures for the neighboring country in relation to the target country (as in the relative measures of influentialness), then logging the ratio to make the distribution symmetric, and then taking the absolute value of the logged ratio. For example, in the case of population, the corresponding formula is  $\left| \log \left( \frac{\text{population}_n}{\text{population}_t} \right) \right|$ . In this way, the similarity measures take on the same value when  $A$  is the target and  $B$  is the neighbor, as when  $B$  is the target and  $A$  the neighbor. We then invert the values by subtracting them from the largest value that the above result takes. This simplifies the interpretation of the results, as larger values indicate that two countries are more similar. More importantly, were we not to invert the scores, having no protests would have the same value as having a protest in the most similar pair of countries. But, by inverting the scores, it has the same value as having a democracy protest in the most similar pair of countries.<sup>22</sup>

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<sup>21</sup>We do not measure similarity in terms of military strength because in most cases, democracy protests are repressed by police (not military) forces, which the CIRI PIR index captures more accurately. In the calculation of the repressiveness variables, we invert the index's original scores so that higher values indicate a more repressive government. Thus, the index ranges from 0 (full) to 8 (no government protection against these actions).

<sup>22</sup>While it is not ideal that a value of zero corresponds to two conditions – no protests in either the target or neighboring countries and the most similar dissimilar pair of target and neighboring countries, we expect the likelihood of protests to be very similar in both. For all four of the similarity measures for 50km neighbors, over 99 percent of the zeros for these measures are a result of no protests occurring. The same

Table 1 summarizes the expectations of both diffusion and commonalities arguments for each of the aforementioned measures in relation to democracy protests.

### *Additional Controls*

In addition to these measures, we also include in the analysis a control variable for election periods. We do not control for all factors that might affect whether or not protests occur within countries, such as nationalist sentiment, the urban landscape (i.e., central squares), economic crises, or corruption. Some of these factors, like nationalist sentiment and corruption, are very difficult to measure. Others are more easily measurable, but the factors themselves do not vary within years of countries (e.g., central squares), or the available estimates of them do not (e.g., population, corruption and economic crises). These factors are controlled for in the analysis using country-year fixed effects, as explained further below.

Election periods, however, do vary within years of countries. We measure *election periods* with an indicator variable coded 1 if a given observation fell within 30 days of a national election in a given country (i.e., legislative or presidential election) and 0 otherwise.<sup>23</sup> Democracy protests are more likely to occur around election periods because electoral fraud serves as a valuable focal point around which to organize democracy protests. Fraud indicates to citizens that they are not alone in their opposition to the government and that, if they protest, others are likely to protest as well (Tucker 2007; Hyde and Marinov 2014; Kuntz and Thompson 2009; Svulik and Chernykh 2015; Beaulieu 2014). Elections also make the connection between a country's poor economic performance and its lack of democracy more salient (Brancati 2016). Although we do not report the results of this variable in the tables to conserve space, election periods are consistently a significant predictor of the likelihood

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is true for three of the similarity measures (i.e., GDP per capita; population; and repressiveness) for 800km neighbors. For the democracy similarity measure, about 2 percent or less of the zeros are a result of no protests occurring.

<sup>23</sup>The election data are based on: the *African Elections Database* (Nunley 2004-2012), the *Global Elections Database* (Brancati 2007), and the Oxford series of election data handbooks (Nohlen, Krennerich and Thibaut 1999; Nohlen 2005; Nohlen and Stöver 2010).

**Table 1: Diffusion versus Commonalities Mechanisms**

<b>Quantities of Interest</b>	<b>Mechanism</b>	<b><i>Higher Likelihood of Target Protest</i></b>
<i>Government Responses</i>		
Neighbor Protest Success	Diffusion	↑ success
Neighbor Protest Repression	Diffusion	↓ repression
<i>Influentialness</i>		
GDP (absolute)	Diffusion	↑ GDP
GDP (relative)	Diffusion	↑ GDP
Population (absolute)	Diffusion	↑ population
Population (relative)	Diffusion	↑ population
Military Spending (absolute)	Diffusion	↑ military spending
Military Spending (relative)	Diffusion	↑ military spending
Military Personnel (absolute)	Diffusion	↑ military personnel
Military Personnel (relative)	Diffusion	↑ military personnel
<i>Similarity</i>		
GDP per capita (similarity)	Diffusion; Commonalities	↑ similar GDP per capita
Population (similarity)	Diffusion; Commonalities	↑ similar population
Repressiveness (similarity)	Diffusion; Commonalities	↑ similar repressiveness
Democracy (similarity)	Diffusion; Commonalities	↑ similar democracy
<i>Time and Distance</i>		
Internet Era (24 October 1995-)	Diffusion	internet era
Fall of Communism (1989-1992)	Diffusion; Commonalities	fall of communism
Arab Spring (2010-2011)	Diffusion; Commonalities	Arab Spring
Time Intervals (45; 90; 120)	Diffusion; Commonalities	↓ time
Euclidean Distance (50km; 800km)	Diffusion; Commonalities	↓ distance
Geographic Region	Diffusion; Commonalities	same region

of democracy protests to occur in countries.

## Results

In order to analyze the potential diffusion of democracy protests, we first examine the temporal and spatial distribution of democracy protests in the post-Cold War period. Table 2 depicts the percentage of days between 1 January 1989 and 31 December 2011 on which a democracy protest broke out in a country depending on whether or not a democracy protest occurred in a neighboring country within the last 45, 90 or 120 days. These figures do not represent the total number of days on which democracy protests occurred in this period, which is much higher, only the number of days on which democracy protests *began*, since we are interested in evaluating the outbreak of democracy protests in target countries when protests occur in neighboring countries.

**Table 2: Data Overview**

protest in last...	50km neighbors		800km neighbors		UN region neighbors	
	no protest	protest	no protest	protest	no protest	protest
<b>45 days</b>	0.022% [251]	0.031% [22]	0.020% [235]	0.027% [53]	0.020% [239]	0.026% [50]
<b>90 days</b>	0.021% [239]	0.032% [34]	0.019% [209]	0.027%* [79]	0.019% [220]	0.025% [69]
<b>120 days</b>	0.021% [233]	0.030% [40]	0.019% [198]	0.026%* [90]	0.019% [210]	0.024% [79]

*Note:* The unit of observation is the country-day. Values in brackets indicate the number of observations in each cell. The numbers for 50km and 800km neighbors do not add up to 289 because countries without neighbors are not included in the sample. (\*) Indicates that the difference between the proportion of observations with and without protests is statistically significant at the 0.05 level.

The figures in the table suggest preliminarily that democracy protests are spatially clustered. Democracy protests, according to these figures, are 20-50% more likely to break out if a protest occurred in a neighboring country within the last 45, 90 or 120 days. The evidence for a temporal clustering of protests is slightly weaker. Democracy protests are less likely

to occur for longer time intervals, but only for 800km neighbors and UN regional neighbors, not for 50km neighbors. The figures in this table represent aggregate trends and do not show the regions of the world and time periods in which democracy protests are clustered.

In order to visualize this information, we created a time-lapse video using iMovie (see Figure 1). If a democracy protest occurred in a country in a given month, a solid black dot appears in the video within the borders of that country. The size of the dot is in proportion to the size of the protests. The dot remains solid as long as the protest is on-going. The dot changes to gray and becomes hollow for the 90-day period (approximately 13 weeks) after the protest ended. Where democracy protests are temporally and/or spatially clustered, the density of dots is higher. From this video, democracy protests appear to be clustered in only two time periods – the early 1990s around the end of communism in East Central Europe and West Africa, and in 2011 in the Middle East and North Africa.

Both the figures in Table 2 and the video suggest that democracy protests are spatially clustered for at least some time periods. However, this does not necessarily mean that protests diffuse between countries because the clustering may be due to neighboring countries have similar characteristics that dispose them to protests, and may not be significant when controlling for other factors. Therefore, in the remainder of the paper, we run a series of models to examine more systematically whether democracy protests are temporally and spatially clustered, as well as which features, if any, of democracy protests and the countries in which they occur are associated with this clustering. The models are estimated using ordinary least squares regression with fixed effects for country-years in order to control for unexplained variance in countries over time.<sup>24</sup> Failing to include fixed-effects for

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<sup>24</sup>We employ OLS rather than logit/probit specifications for three reasons. First, logit/probit specifications do not work well with fixed effects, especially if, as is the case here, there are few observations in which the outcome variable takes the value of 1. Second, logit/probit models work especially poorly when the model is misspecified (i.e., an irrelevant variable is included or a relevant one is excluded, even if that variable is uncorrelated with the explanatory variable of interest (Angrist and Pischke (2009); Beck (2011), fn. 33). Finally, OLS and logit/probit models produce very similar results when researchers are interested, as we are in this analysis, in estimating marginal effects rather than fitted probabilities (Angrist and Pischke

## Figure 1: Protests Diffusion Time-lapse Video, 1989-2011

*Note: You must have Adobe Reader 11.0.10 installed and a media player such as QuickTime to view the embedded video. The video must be saved in the same directory where you have this .pdf file. You must agree to “trust” the document if you receive an error message indicating some features are disabled to avoid potential security risks.*

country-years as we do, would misleadingly treat each day within a country as if it were an independent observation.<sup>25</sup>

### *Protests in Neighboring Countries*

In the first set of models presented in Table 3, we examine whether or not a protest is more likely to occur in a target country when a protest occurs in a neighboring country located within 50km or 800km of the target in the last 45, 90 and 120 days. We also explore if the likelihood of a democracy protest to occur in a target country is associated with the number and size of the largest democracy protests that occur in neighboring countries.

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(2009), pp. 102-7), especially when including fixed effects (Beck 2011).

<sup>25</sup>We do not include country-fixed effects and year-fixed effects separately since we do not want to exclude exogenous shocks that affect multiple countries simultaneously.

**Table 3: Number and Size of Democracy Protests, 1989-2011**

	At Least One Neighbor Protest in Last			Total Number of Neighbor Protests in Last			Size of Largest Neighbor Protest in Last		
	45 days	90 days	120 days	45 days	90 days	120 days	45 days	90 days	120 days
<i>Baseline</i>									
<b>A. 50km Neighbors (160 countries; 3383 country-years; 1.2m obs.)</b>									
<i>Neighbor Democracy Protest</i>	0.002 (0.782)	0.003 (0.605)	0.002 (0.699)	0.000 (0.954)	0.002 (0.649)	0.002 (0.711)	-0.000 (0.944)	0.001 (0.825)	-0.000 (0.920)
<i>Baseline + Election</i>									
<i>Neighbor Democracy Protest</i>	0.001 (0.882)	0.002 (0.696)	0.002 (0.771)	-0.000 (0.996)	0.002 (0.716)	0.001 (0.792)	0.001 (0.896)	0.002 (0.778)	-0.003 (0.639)
<b>B. 800km Neighbors (177 countries; 3774 country-years; 1.4m obs.)</b>									
	At Least One Neighbor Protest in Last			Total Number of Neighbor Protests in Last			Size of Largest Neighbor Protest in Last		
<i>Baseline</i>	45 days	90 days	120 days	45 days	90 days	120 days	45 days	90 days	120 days
<i>Neighbor Democracy Protest</i>	0.002 (0.676)	0.003 (0.379)	0.002 (0.677)	0.002 (0.627)	0.003 (0.269)	0.001 (0.723)	0.000 (0.855)	0.001 (0.499)	0.000 (0.945)
<i>Baseline + Election Controls</i>									
<i>Neighbor Democracy Protest</i>	0.002 (0.710)	0.003 (0.398)	0.002 (0.631)	0.002 (0.626)	0.003 (0.271)	0.001 (0.685)	0.007 (0.181)	0.008 (0.082)	0.000 (0.937)

*Note:* OLS regression estimates. All specifications include country-year fixed effects. *p*-values in parentheses. The unit of observation is the country-day. The coefficients in the table are multiplied by 100 for display purposes. (\*) Indicates significance at the 0.05 level.

As is evident from Table 3, a democracy protest is not significantly more likely to occur in a target country if at least one democracy protest occurred in a neighboring country located within 50km or 800km of the target country in the last 45, 90 or 120 days. A protest is also not significantly more likely to occur in a target country regardless of the number of neighboring protests or size of the largest protest that occurred in 50km or 800km neighbors. The results are also insignificant if we repeat these models with neighbors defined in terms of UN-defined regions.<sup>26</sup> Given the very large number of observations in the data, the lack of significance is all the more impressive.

In order to determine if anti-regime contention, in general, is more likely to occur in target countries if democracy protests occur in neighboring countries, we repeat these models using target anti-regime contention as our dependent variable. These results are generally not significant and the few results that are significant are a result of one year, 2011. See Appendix (Table A4). This year may be unique in inspiring more anti-regime contention than others but, given the fact that the number of events included in the GDELT data increases exponentially over time (likely due to its data collection procedures and use of web sources on available for latter periods), the results should be viewed with caution.

In alternative models presented in Table 4, we repeat the analyses presented in the previous table for certain subsets of the data to test the robustness of our findings. In these analyses, we exclude cases of borderline protests and find no evidence that democracy protests are more likely to occur in target countries if protests occur in either 50km or 800km neighbors in the last 45, 90 or 120 days. We also restrict the analyses to the internet era (24 October 1995-), the end of communism (1989-1992), and the Arab Spring,<sup>27</sup> and find

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<sup>26</sup>From this analysis, we cannot determine if democracy protests are likely to be larger if democracy protests occur in neighboring countries. However, preliminary evidence suggests that they would not. When a democracy protest occurs in a target country, the median size of a democracy protest in the target country (2=1,000-10,000) is the same regardless of whether a protest occurred in a neighboring country or not. See Appendix (Table A3).

<sup>27</sup>We also restrict the analysis to 1989 only and do not find statistically significant results. See Appendix (Table A5).

no evidence that democracy protests are more likely to occur in target countries if protests occurred in neighboring countries during any of these periods. In still other models presented in this table, we split the data into two samples – one for non-democracies (scoring less than 5 on the Polity II index) and one for democracies (scoring less than 5 on the Polity II index) – to determine if protests are more likely to diffuse to non-democratic countries regardless of whether or not neighboring countries are democratic. As the models show, democracy protests are not significantly more likely to occur in authoritarian states if protests occur in neighboring states for any time interval or definition of neighboring states for any interval or definition of neighboring states.

In other models, we consider the possibility of democracy protests diffusing across countries over a longer time period, namely across election periods. We conducted two separate sets of analyses, one in which elections is the unit of analysis and one in which the country-day is the unit of analysis as in previous models. Overall, in these models, we find weak evidence that the likelihood of a democracy protest to occur in a target country is significantly higher when a democracy protest occurs in a neighboring country is conditional on the occurrence of elections in target countries. The effect is unlikely, though, to be due to diffusion processes since the results are not consistent with the expectations of diffusion arguments regarding the likelihood of protests being higher in target countries if neighboring protests are successful and not repressed, and because a close inspection of the data indicates that the cases responsible for the significant results are not those that diffusion scholars point to as examples of diffusion. See Appendix (Table A6; Table A7) and the accompanying discussion for further details.

### *Government Responses to Neighbor Protests*

In Table 5 we explore if how governments in neighboring countries respond to democracy protests influences the likelihood of protests to occur in target countries. As is evident

**Table 4: Diffusion of Democracy Protests: Alternative Samples**

<i>Baseline</i>	50km Neighbors			800km Neighbors		
	45 days	90 days	120 days	45 days	90 days	120 days
<i>Excluding borderline protests</i>	0.004 (0.601)	0.002 (0.751)	0.003 (0.601)	0.003 (0.445)	0.004 (0.294)	0.003 (0.413)
<i>Internet era only</i>	0.006 (0.449)	0.007 (0.323)	0.006 (0.359)	0.008 (0.129)	0.005 (0.258)	0.003 (0.474)
<i>Fall of Communism (1989-1992)</i>	-0.012 (0.481)	-0.010 (0.498)	-0.007 (0.643)	-0.018 (0.092)	-0.006 (0.529)	-0.005 (0.656)
<i>Arab Spring (2010-2011)</i>	-0.004 (0.885)	-0.012 (0.576)	-0.005 (0.819)	0.020 (0.207)	0.004 (0.758)	0.004 (0.774)
<i>Autocracies</i>	0.009 (0.405)	0.006 (0.503)	0.006 (0.508)	-0.000 (0.977)	0.006 (0.335)	0.003 (0.604)
<i>Democracies</i>	-0.006 (0.509)	0.004 (0.558)	0.000 (0.948)	0.005 (0.297)	0.004 (0.337)	0.004 (0.380)
<b><i>Baseline + Election Controls</i></b>						
<i>Excluding borderline protests</i>	0.003 (0.651)	0.002 (0.791)	0.003 (0.639)	0.003 (0.461)	0.004 (0.315)	0.003 (0.389)
<i>Internet era only (24 October 1995-)</i>	0.004 (0.636)	0.005 (0.466)	0.005 (0.498)	0.007 (0.151)	0.005 (0.296)	0.003 (0.468)
<i>Fall of Communism (1989-1992)</i>	-0.011 (0.507)	-0.010 (0.525)	-0.006 (0.670)	-0.019 (0.083)	-0.007 (0.496)	-0.005 (0.624)
<i>Arab Spring (2010-2011)</i>	-0.011 (0.660)	-0.019 (0.367)	-0.012 (0.557)	0.017 (0.277)	0.004 (0.761)	0.005 (0.746)
<i>Autocracies (only)</i>	0.006 (0.553)	0.004 (0.655)	0.005 (0.604)	-0.001 (0.885)	0.006 (0.353)	0.004 (0.522)
<i>Democracies (only)</i>	-0.005 (0.530)	0.004 (0.547)	0.001 (0.936)	0.006 (0.260)	0.004 (0.334)	0.004 (0.366)

*Note:* OLS regression estimates. All specifications include country-year fixed effects. *p*-values in parentheses. The unit of observation is the country-day. The coefficients in the table are multiplied by 100 for display purposes. (\*) Indicates significance at the 0.05 level.

from the results in this table, democracy protests are not significantly more likely to occur in target countries regardless of whether or not governments repress democracy protests in neighboring countries or extend political concessions to them. The three indicators for success are not jointly significant in any models in this table according to Wald Tests, nor are any of the three indicators for repression.

### *Characteristics of Neighbors*

In the final set of models presented in Table 6, we examine if, as diffusion arguments sug-

Table 5: Government Responses to Neighbor Protests, 1989-2011

<i>Baseline</i>	50km Neighbors (160 countries; 3383 c-years; 1.2m obs.)			800km Neighbors (177 countries; 3774 c-years; 1.4m obs.)		
	45 days	90 days	120 days	45 days	90 days	120 days
<u>Protest success</u>						
<i>All Successful</i>	-0.013 (0.353)	-0.006 (0.623)	-0.008 (0.498)	-0.004 (0.613)	0.005 (0.474)	-0.001 (0.849)
<i>Some Successful</i>	-0.032 (0.485)	-0.030 (0.322)	-0.003 (0.916)	-0.026 (0.128)	0.000 (0.994)	-0.000 (0.999)
<i>None Successful</i>	0.006 (0.401)	0.007 (0.330)	0.005 (0.428)	0.005 (0.329)	0.003 (0.462)	0.002 (0.552)
<u>Government repression</u>						
<i>All Repressed</i>	0.003 (0.692)	0.006 (0.411)	0.002 (0.820)	0.007 (0.200)	0.010 (0.039)*	0.008 (0.096)
<i>Some Repressed</i>	-0.031 (0.523)	-0.028 (0.406)	-0.031 (0.270)	-0.037 (0.029)*	-0.008 (0.512)	-0.016 (0.121)
<i>None Repressed</i>	0.000 (0.967)	-0.001 (0.931)	0.006 (0.544)	-0.003 (0.659)	-0.006 (0.318)	-0.006 (0.303)
<u>Election-related only</u>						
<i>Democracy protests</i>	0.001 (0.896)	0.002 (0.778)	-0.003 (0.639)	0.007 (0.181)	0.008 (0.082)	0.000 (0.937)
<b><i>Baseline + Election Control</i></b>						
<u>Neighbor Protest Success</u>						
<i>All Successful</i>	-0.011 (0.430)	-0.005 (0.701)	-0.007 (0.534)	-0.004 (0.598)	0.004 (0.561)	-0.002 (0.804)
<i>Some Successful</i>	-0.026 (0.564)	-0.029 (0.332)	-0.006 (0.825)	-0.025 (0.142)	0.002 (0.884)	0.000 (0.991)
<i>None Successful</i>	0.005 (0.542)	0.005 (0.441)	0.004 (0.503)	0.004 (0.355)	0.003 (0.467)	0.003 (0.485)
<u>Neighbor Protest Repression</u>						
<i>All Repressed</i>	0.002 (0.792)	0.005 (0.449)	0.001 (0.828)	0.006 (0.219)	0.010 (0.040)*	0.008 (0.084)
<i>Some Repressed</i>	-0.023 (0.636)	-0.020 (0.543)	-0.025 (0.385)	-0.035 (0.039)*	-0.006 (0.598)	-0.014 (0.175)
<i>None Repressed</i>	-0.000 (0.975)	-0.003 (0.787)	0.004 (0.691)	-0.003 (0.630)	-0.006 (0.275)	-0.006 (0.291)

*Note:* OLS regression estimates. All specifications include country-year fixed effects. *p*-values in parentheses. The unit of observation is the country-day. The coefficients in the table are multiplied by 100 for display purposes. (\*) Indicates significance at the 0.05 level.

gest, democracy protests are more likely to occur in countries the more influential neighboring countries are in absolute and relative terms, and the more similar neighboring countries are to the target countries. As is evident from the table, protests are not significantly more likely to occur in target countries regardless of how influential neighboring countries are or how similar they are to target countries. None of the measures of influentialness or similarity are significant for either 50km or 800km neighbors for any time interval examined.

**Table 6: Neighbor Countries' Characteristics, 1989-2011**

<i>Influentialness of neighbors</i>	50km Neighbors (146-159 countries; 2674-3333 country-years; 1.0-1.2m obs.)			800km Neighbors (159-177 countries; 2972-3774 country-years; 1.1-1.4m obs.)		
	45 days	90 days	120 days	45 days	90 days	120 days
<i>GDP (absolute)</i> (log)	0.000 (0.643)	0.000 (0.613)	0.000 (0.678)	0.000 (0.885)	0.000 (0.647)	0.000 (0.936)
<i>GDP (relative)</i> (log)	-0.000 (0.948)	-0.000 (0.959)	0.000 (0.950)	0.000 (0.908)	0.000 (0.638)	0.000 (0.875)
<i>Population (absolute)</i> (log)	0.000 (0.690)	0.000 (0.615)	0.000 (0.702)	0.000 (0.914)	0.000 (0.582)	0.000 (0.856)
<i>Population (relative)</i> (log)	-0.000 (0.848)	-0.000 (0.936)	-0.000 (0.952)	-0.000 (0.944)	0.000 (0.616)	0.000 (0.850)
<i>Military spending (absolute)</i> (log)	0.000 (0.966)	0.000 (0.450)	0.000 (0.553)	0.000 (0.728)	0.000 (0.450)	0.000 (0.866)
<i>Military spending (relative)</i> (log)	0.000 (0.574)	0.001 (0.442)	0.001 (0.345)	0.000 (0.734)	0.000 (0.823)	-0.000 (0.774)
<i>Military personnel (absolute)</i> (log)	-0.000 (0.897)	0.000 (0.645)	0.000 (0.647)	0.000 (0.557)	0.000 (0.297)	0.000 (0.459)
<i>Military personnel (relative)</i> (log)	-0.000 (0.904)	0.000 (0.768)	0.000 (0.698)	0.000 (0.706)	0.000 (0.462)	0.000 (0.663)
<b><i>Similarity with neighbors</i></b>						
<i>GDP per capita (similarity)</i>	-0.000 (0.931)	0.000 (0.953)	0.000 (0.810)	0.000 (0.897)	0.001 (0.451)	0.000 (0.482)
<i>Population (similarity)</i>	-0.000 (0.887)	0.000 (0.967)	0.000 (0.769)	-0.000 (0.901)	0.000 (0.603)	0.000 (0.599)
<i>Repressiveness (similarity)</i>	0.003 (0.507)	0.003 (0.421)	0.004 (0.286)	0.004 (0.119)	0.004 (0.126)	0.004 (0.114)
<i>Polity IV (similarity)</i>	0.005 (0.137)	0.004 (0.160)	0.003 (0.212)	0.004 (0.119)	0.004 (0.126)	0.004 (0.114)

Note: OLS regression estimates. All specifications include country-year fixed effects. *p*-values in parentheses. The unit of observation is the country-day. The coefficients in the table are multiplied by 100 for display purposes. (\*) Indicates significance at the 0.05 level.

## Conclusion

Unlike democracy, democracy protests, as the proceeding analysis shows, are not geographically or temporally clustered. Nor, do democracy protests occur in patterns consistent with diffusion arguments. According to the previous analysis, democracy protests, as well as other forms of anti-regime protests, were not significantly more likely to occur between 1989 and 2011 when democracy protests occurred in neighboring countries, even when these neighbors were influential or similar to target countries in terms of various political and socio-economic features. Nor, were they more likely to occur when democracy protests in neighboring countries were not repressed by their governments or were able to extract political concessions from them. And, although modern technology allows for faster communication to wider audiences, democracy protests were not more likely to occur in the internet age or when neighboring countries had greater internet connectivity.

While democracy protests do not diffuse to other countries in general, this does not mean that there are no cases in which democracy protests have successfully diffused to other countries. Indeed, there is much qualitative evidence that suggests that in some cases democracy protests do diffuse across countries. Nor, do these results mean that activists, which would have organized protests against their government anyway, did not use the onset of protests in neighboring countries to mobilize supporters, that these activists did not adopt similar tactics, like continuously occupying central squares as in the Arab Spring protests, or did not assert other less public forms of anti-regime contention. Nor, do these results indicate that protests, which would have occurred anyway, would have been as big or would have occurred as soon (but not as soon as a year) had protests not arisen in neighboring countries.

What it does mean is that, in general, democracy protests are not more likely to occur in countries regardless of how large, numerous, or successful protests are in neighboring countries. They do not, we argue, because democracy protests arise primarily out of domes-

tic processes, and discontent over fraud-ridden elections and economic crises in particular. Protests in neighboring countries do not, in general, affect these triggers. At the same time, they can make it more difficult for activists in other countries to subsequently organize protests by causing governments to undertake countermeasures to prevent protests from occurring in their countries. Were it the case that governments initiated democratic reforms in order to pre-empt protests from occurring in their countries, democracy protests could still help explain the geographic and temporal clustering of democracy in the world. However, since most anecdotal evidence suggests that autocrats tend to restrict democratic freedoms when protests occur in neighboring countries, it is more likely that if democracy diffuses, that it does so through other processes, such as foreign aid, international trade, membership in regional organizations, and so forth.

Although globalization is likely to advance further in coming decades, democracy protests are not more likely to diffuse from one country to another in the future. Advancements in communication technologies, including cell phones and the internet, and increasing linkages between states due to the reduction of trade barriers, are likely to hasten the spread of information among states, and can make activists more aware of protests in other countries, but these advancements in technology can also aid governments in taking countermeasures to pre-empt the spread of protests. Increasing globalization, however, can make democracy protests appear to diffuse in the future by fostering similar conditions within countries, such as economic crises, which are key motivations for democracy protests.

## References

- Angrist, Joshua D. and Jörn-Steffen Pischke. 2009. *Mostly Harmless Econometrics. An Empiricist's Companion*. Princeton, NJ: Princeton University Press.
- Bamert, Justus, Fabrizio Gilardi and Fabio Wasserfallen. 2015. "Learning and the diffusion of regime contention in the Arab Spring." *Research and Politics* July-September:1–9.
- Beaulieu, Emily. 2014. *Electoral Protest and Democracy in the Developing World*. New York: Cambridge University Press.
- Beck, Nathaniel. 2011. "Is OLS with a Binary Dependent Variable Really OK?: Estimating (Mostly) TSCS Models with Binary Dependent Variables and Fixed Effects."
- Beissinger, Mark R. 2007. "Structure and Example in Modular Political Phenomena: The Diffusion of Bulldozer/Rose/Orange/Tulip Revolutions." *Perspectives on Politics* 5(2):259–276.
- Beissinger, Mark R. 2013. "The Semblance of Democratic Revolution: Coalitions in Ukraine's Orange Revolution." *American Political Science Review* 107(3):574–592.
- Boix, Carles. 2003. *Democracy and Redistribution*. New York: Cambridge University Press.
- Brancati, Dawn. 2007. "Global Elections Database." <http://www.globalelectionsdatabase.com>.
- Brancati, Dawn. 2016. *Democracy Protests: Origins, Features, and Significance*. New York City: Cambridge University Press.
- Bratton, Michael and Nicolas van de Walle. 1997. *Democratic Experiments in Africa: Regime Transitions in Comparative Perspective*. New York City: Cambridge University Press.
- Brinks, Daniel and Michael Coppedge. 2006. "Diffusion Is No Illusion: Neighbor Emulation in the Third Wave of Democracy." *Comparative Political Studies* 39(4):463–489.
- Brownlee, Jason, Tarek Masoud and Andrew Reynolds. 2015. *The Arab Spring: Pathways of Repression and Reform*. New York City: Oxford University Press.
- Buenrostro, Lucia, Amrita Dhillon and Myrna Wooders. 2007. "Protests and Reputation." *International Journal of Game Theory* 35:353–377.
- Bunce, Valerie, David Patel and Sharon L. Wolchik. 2013. "Rethinking the Diffusion of Democracy: 1989, the Color Revolutions and the Arab Uprisings." Paper presented at International Studies Association, San Francisco, CA, April 3-6, 2013.
- Bunce, Valerie J. and Sharon L. Wolchik. 2006. "International Diffusion and Postcommunist Electoral Revolutions." *Communist and Post-Communist Studies* 39(3):283–304.
- Bunce, Valerie J. and Sharon L. Wolchik. 2013. "Favorable Conditions and Electoral Revolutions." *Journal of Democracy* 17(4):5–18.

- Campante, Filipe R. and Davin Chor. 2012. "Why was the Arab World Poised for Revolution? Schooling, Economic Opportunities, and the Arab Spring." *Journal of Economic Perspectives* 26(2):167–188.
- Chaisty, Paul and Stephen Whitefield. 2013. "Forward to Democracy or Back to Authoritarianism? The Attitudinal Bases of Mass Support for the Russian Election Protests of 2011–2012." *Post-Soviet Affairs* 29(5):387–403.
- Danneman, Nathan and Emily Hencken Ritter. 2014. "Contagious Rebellion and Preemptive Repression." *Journal of Conflict Resolution* 58(2):254–279.
- della Porta, Donatella. 2014. *Mobilizing for Democracy: Comparing 1989 and 2011*. Oxford: Oxford University Press.
- della Porta, Donatella and Sidney Tarrow. 2012. "Interactive Diffusion: The Coevolution of Police and Protest Behavior With an Application to Transnational Contention." *Comparative Political Studies* 45(1):119–152.
- Elkins, Zachary. 2008. Is Democracy Contagious? Diffusion and the Dynamics of Regime Transition. In *International Perspectives on Contemporary Democracy*, ed. Peter F. Nardulli. Urbana-Champaign: University of Illinois Press pp. 42–62.
- Franzese, Jr., Robert J. and Jude C. Hays. 2008. "Interdependence in Comparative Politics: Substance, Theory, Empirics, Substance." *Journal of Comparative Politics* 41(4-5):742–80.
- Gana, Nouri. 2013. *The Making of the Tunisian Revolution: Contexts, Architects and Prospects*. Edinburgh: Edinburgh University Press.
- Givan, Rebecca Kolins, Kenneth M. Roberts and Sarah A. Soule, eds. 2010. *The Diffusion of Social Movements*. New York: Cambridge University Press.
- Gleditsch, Kristian Skrede and Michael D. Ward. 2006. "Diffusion and the International Context of Democratization." *International Organization* 60(4):911–933.
- Goldstone, Jack A. 1991. *Revolution and Rebellion in the Early Modern World*. Berkeley: University of California Press.
- Heydemann, Steven and Reinoud Leenders. 2011. "Authoritarian Learning and Authoritarian Resilience: Regime Responses to the 'Arab Awakening'." *Globalizations* 8(5):647–653.
- Houle, Christian, Mark Andreas Kayser and Jun Xiang. 2016. "Diffusion or Confusion? Clustered Shocks and the Conditional Diffusion of Democracy." *International Organization* 70(4):687–726.
- Huntington, Samuel P. 1991. *The Third Wave: Democratization in the Late Twentieth Century*. Norman, Oklahoma: University of Oklahoma Press.
- Hyde, Susan D. and Nikolay Marinov. 2014. "Does Information Facilitate Self-Enforcing Democracy?: The Role of International Election Observation." *International Organization* 68(2):329–359.

- IISS. 1988-2011. *The Military Balance*. London: International Institute for Strategic Studies, The.
- Inglehart, Ronald and Christian Welzel. 2009. "How Development Leads to Democracy: What We Know About Modernization." *Foreign Affairs* 88(2):33–48.
- Jagers, Keith and Ted Robert Gurr. 1995. "Tracking Democracy's Third Wave with the Polity III Data." *Journal of Peace Research* 32(4):469–82.
- Joffé, George. 2011. "The Arab Spring in North Africa: Origins and Prospects." *The Journal of North African Studies* 16(4):507–532.
- Koesel, Karrie J. and Valerie J. Bunce. 2013. "Diffusion-Proofing: Russian and Chinese Responses to Waves of Popular Mobilizations against Authoritarian Rulers." *Perspectives on Politics* 11(3):753–768.
- Kopstein, Jeffrey S. and David A. Reilly. 2000. "Geographic Diffusion and the Transformation of the Postcommunist World." *World Politics* 53(1):1–37.
- Kotkin, Stephen. 2009. *Uncivil Society: 1989 and the Implosion of the Communist Establishment*. New York: Modern Library.
- Kuntz, Philipp and Mark R. Thompson. 2009. "More than Just the Final Straw : Stolen Elections as Revolutionary Triggers." *Comparative Politics* 41(3):253–272.
- Kuran, Timur. 1989. "Sparks and Prairie Fires: A Theory of Unanticipated Political Revolution." *Public Choice* 61(1):41–74.
- Kuran, Timur. 1991. "Now Out of Never: The Element of Surprise in the East European Revolution of 1989." *World Politics* 44(1):7–48.
- Kuran, Timur. 2011. "The Politics of Revolutionary Surprise." Project Syndicate.
- Leeson, Peter T. and Andrea M. Dean. 2009. "The Democratic Domino Theory: An Empirical Investigation." *American Journal of Political Science*, 53(3):533–551.
- Lohmann, Susanne. 1994. "The Dynamics of Informational Cascades: The Monday Demonstrations in Leipzig, EastGermany, 1989-91." *World Politics* 47(1):42–101.
- Lynch, Marc. 2012. *The Arab Uprising: The Unfinished Revolutions of the New Middle East*. New York: PublicAffairs.
- Mainwaring, Scott and Aníbal Pérez-Liñán. 2014. *Democracies and Dictatorships in Latin America: Emergence, Survival and Fall*. Cambridge: Cambridge University Press.
- Marshall, Monty G. and Ted Robert Gurr. 2015. "Polity IV Project, Political Regime Characteristics and Transitions, 1800-2014." <http://www.systemicpeace.org/inscrdata.html>.
- McAdam, Doug and Dieter Rucht. 1993. "The Cross-National Diffusion of Movement Ideas." *The Annals of the American Academy of Political and Social Science* 528(July):56–74.

- McAdam, Doug, John D. McCarthy and Mayer N. Zald, eds. 1996. *Comparative Perspectives on Social Movements: Political Opportunities, Mobilizing Structures, and Cultural Framings*. New York City: Cambridge University Press.
- Mitchell, Lincoln A. 2012. *The Color Revolutions*. Philadelphia: University of Pennsylvania Press.
- Nohlen, Dieter, ed. 2005. *Elections in the Americas: A Data Handbook*. Oxford: Oxford University Press.
- Nohlen, Dieter, Michael Krennerich and Bernhard Thibaut, eds. 1999. *Elections in Africa: A Data Handbook*. Oxford: Oxford University Press.
- Nohlen, Dieter and Philip Stöver, eds. 2010. *Elections in Europe: A Data Handbook*. Baden-Baden, Germany: Nomos Publishers.
- Nunley, Albert C. 2004-2012. “African Elections Database.” <http://africanelections.tripod.com>.
- Patel, David Siddhartha. 2014. “Roundabouts and Revolutions: Public Squares, Coordination, and the Diffusion of the Arab Uprisings.”
- Saideman, Stephen M. 2012. “When Conflict Spreads: Arab Spring and the Limits of Diffusion.” *International Interactions* 38(5):713–722.
- Soule, Sarah A. 1997. “The Student Divestment Movement in the United States and the Shantytown: Diffusion of a Protest Tactic.” *Social Forces* 75(3):855–883.
- Starr, Harvey. 1991. “Democratic Dominoes: Diffusion Approaches to the Spread of Democracy in the International System.” *The Journal of Conflict Resolution* 35(2):356–381.
- Starr, Harvey and Christina Lindborg. 2003. “Democratic Dominoes Revisited: The Hazards of Governmental Transitions, 1974–1996.” *Journal of Conflict Resolution* 47(4):490–519.
- Svolik, Milan W. and Svitlana Chernykh. 2015. “When are Election Outcomes Self-Enforcing? How Institutions Shape Incentives for Electoral Manipulation and Post-Election Protest.” *The Journal of Politics* 77(2):407–420.
- Tarrow, Sidney. 2005. *The New Transnational Activism*. New York: Cambridge University Press.
- Tarrow, Sidney G. 1991. “Struggle, Politics, and Reform: Collective Action, Social Movements, and Cycles of Protest.” Ithaca, NY: Cornell University Press.
- Tarrow, Sidney G. 1994. *Power in Movement: Social Movements and Contentious Politics*. Cambridge University Press.
- Tucker, Joshua A. 2007. “Enough! Electoral Fraud, Collective Action Problems, and Post-Communist Colored Revolutions.” *Perspectives on Politics* 5(3):535–551.
- Weidmann, Nils B., Doreen Kuse and Kristian Skrede Gleditsch. 2010. “The Geography of the International System: The CShapes Dataset.” *International Interactions: Empirical and Theoretical Research in International Relations* 36(1):86–106.

- Weyland, Kurt. 2009. "The Diffusion of Revolution: '1848' in Europe and Latin America." *International Organization* 63(3):391–423.
- Weyland, Kurt. 2012. "The Arab Spring: Why the Surprising Similarities with the Revolutionary Wave of 1848?" *Perspectives on Politics* 10(4):917–934.
- Weyland, Kurt. 2014. *Making Waves: Democratic Waves in Europe and Latin America since the Revolutions*. New York City: Cambridge University Press.
- World Bank, The. 2014. *World Development Indicators Online*. Washington, D.C.: World Bank Group.

## Appendix

**Table A1: Diffusion of Democracy Protests: 360-day Time Lag, 1989-2011**

<b>A. 50km Neighbors (160 countries; 3383 c-years; 1.2m obs.)</b>			
<i>Baseline</i>	<b>dummy</b>	<b>sum</b>	<b>size</b>
<i>Democracy Protests (neighbor)</i>	0.007 (0.237)	0.009 (0.089)	0.004 (0.098)
<i>Baseline + Election</i>			
<i>Democracy Protests (neighbor)</i>	0.006 (0.307)	0.008 (0.133)	0.004 (0.128)
<b>B. 800km Neighbors (177 countries; 3774 c-years; 1.4m obs.)</b>			
<i>Baseline</i>	<b>dummy</b>	<b>sum</b>	<b>size</b>
<i>Democracy Protests (neighbor)</i>	0.001 (0.790)	0.002 (0.543)	0.001 (0.473)
<i>Baseline + Election</i>			
<i>Democracy Protests (neighbor)</i>	0.002 (0.605)	0.002 (0.458)	0.002 (0.376)

*Note:* OLS regression estimates. All specifications include country-year fixed effects. *p*-values in parentheses. The unit of observation is the country-day. The coefficients in the table are multiplied by 100 for display purposes. (\*) Indicates significance at the 0.05 level.

**Table A2: Conditional Effect by Internet Connectivity, 1989-2011**

<i>Baseline</i>	50km Neighbors (153 countries; 2586 c-years; 0.9m obs.)			800km Neighbors (159 countries; 2972 c-years; 1.1m obs.)		
	45 days	90 days	120 days	45 days	90 days	120 days
<i>Democracy protests</i>	0.004 (0.678)	0.007 (0.365)	0.009 (0.209)	0.005 (0.404)	0.008 (0.134)	0.006 (0.206)
<i>Democracy protests</i> × % internet users	-0.000 (0.590)	0.000 (0.766)	-0.000 (0.639)	0.000 (0.936)	-0.000 (0.764)	-0.000 (0.600)
<b><i>Baseline + Election</i></b>						
<i>Democracy protests</i>	0.001 (0.881)	0.005 (0.526)	0.007 (0.320)	0.004 (0.475)	0.007 (0.171)	0.006 (0.215)
<i>Democracy protests</i> × % internet users	-0.000 (0.680)	0.000 (0.747)	-0.000 (0.669)	0.000 (0.880)	-0.000 (0.800)	-0.000 (0.596)

*Note:* OLS regression estimates. All specifications include country-year fixed effects. *p*-values in parentheses. The unit of observation is the country-day. % internet users measures the % of internet users in target country at the beginning of the year. The coefficients in the table are multiplied by 100 for display purposes. (\*) Indicates significance at the 0.05 level.

**Table A3: Protest Size, Conditional on Neighbor Protest**

<i>Mean</i>	50km protest in last			800km protest in last		
	45 days	90 days	120 days	45 days	90 days	120 days
<i>Full sample</i>	2.11	2.11	2.11	2.11	2.11	2.11
<i>Protest in neighbor</i>	2.36	2.26	2.17	2.17	2.09	2.06
<i>No protest in neighbor</i>	2.05	2.05	2.06	2.09	2.11	2.13
<b><i>Median</i></b>						
<i>Full sample</i>	2.00	2.00	2.00	2.00	2.00	2.00
<i>Protest in neighbor</i>	2.00	2.00	2.00	2.00	2.00	2.00
<i>No protest in neighbor</i>	2.00	2.00	2.00	2.00	2.00	2.00
<b><i>Mode</i></b>						
<i>Full sample</i>	2.00	2.00	2.00	2.00	2.00	2.00
<i>Protest in neighbor</i>	2.00	2.00	1.00	2.00	2.00	2.00
<i>No protest in neighbor</i>	2.00	2.00	2.00	2.00	2.00	2.00

*Note:* The unit of observation is the protest. (\*) Indicates that the difference between the proportion of observations with and without neighbor protests is statistically significant at the 0.05 level. The mean results are misleading because the size categories are not equally spaced: (1) 1,000 or less; (2) 1,000-10,000; (3) 10,000-100,000; (4) 100,000-1 million; (4) 1 million or more.

Table A4: Target Anti-regime Contention, 1989-2011

A. 50km Neighbors (160 countries; 3384 country-years; 1.2m obs.)						
<i>Baseline</i>	At Least One Neighbor Protest in Last			Total Number of Neighbor Protests in Last		
	45 days	90 days	120 days	45 days	90 days	120 days
<i>Democracy Protests (neighbor)</i>	0.007 (0.362)	-0.003 (0.589)	-0.009 (0.123)	0.005 (0.495)	-0.004 (0.477)	-0.006 (0.273)
<b><i>Baseline + Election</i></b>						
<i>Democracy Protests (neighbor)</i>	0.007 (0.362)	-0.003 (0.590)	-0.009 (0.123)	0.005 (0.493)	-0.004 (0.479)	-0.006 (0.273)
<b><i>Baseline (2011 excluded)</i></b>						
<i>Democracy Protests (neighbor)</i>	0.001 (0.419)	-0.002 (0.162)	-0.006 (0.550)	0.000 (0.507)	-0.004 (0.323)	-0.006 (0.667)
<b><i>Baseline + Election (2011 excluded)</i></b>						
<i>Democracy Protests (neighbor)</i>	0.001 (0.419)	-0.002 (0.163)	-0.006 (0.551)	0.000 (0.507)	-0.004 (0.323)	-0.006 (0.668)
B. 800km Neighbors (177 countries; 3775 country-years; 1.4m obs.)						
<i>Baseline</i>	At Least One Neighbor Protest in Last			Total Number of Neighbor Protests in Last		
	45 days	90 days	120 days	45 days	90 days	120 days
<i>Democracy Protests (neighbor)</i>	0.011 (0.017)*	0.007 (0.071)	0.006 (0.118)	0.010 (0.004)*	0.005 (0.106)	0.003 (0.224)
<b><i>Baseline + Election</i></b>						
<i>Democracy Protests (neighbor)</i>	0.011 (0.017)*	0.007 (0.071)	0.006 (0.118)	0.010 (0.004)*	0.005 (0.106)	0.003 (0.225)
<b><i>Baseline (2011 excluded)</i></b>						
<i>Democracy Protests (neighbor)</i>	0.004 (0.419)	0.005 (0.162)	0.002 (0.550)	0.002 (0.507)	0.003 (0.323)	0.001 (0.667)
<b><i>Baseline + Election (2011 excluded)</i></b>						
<i>Democracy Protests (neighbor)</i>	0.004 (0.419)	0.005 (0.163)	0.002 (0.551)	0.003 (0.507)	0.003 (0.323)	0.001 (0.668)

*Note:* OLS regression estimates. All specifications include country-year fixed effects.  $p$ -values in parentheses. The unit of observation is the country-day. The coefficients in the table are multiplied by 100 for display purposes. (\*) Indicates significance at the 0.05 level.

We use the GDELT data because it records events on a daily basis, but we have serious reservations regarding the quality of these data: first, the data coverage is not consistent over time, with far more coverage of events for later years perhaps due to the increasing availability of web sources; second, a careful inspection of the data reveals that many democracy protests, which would fall under the category of anti-regime contention, are not included in the GDELT data.

Table A5: Diffusion of Democracy Protests: 1989 only

<i>Baseline</i>	50km Neighbors			800km Neighbors		
	45 days	90 days	120 days	45 days	90 days	120 days
<i>Democracy Protests (neighbors)</i>	0.052 (0.180)	0.005 (0.890)	-0.020 (0.565)	0.015 (0.567)	-0.004 (0.862)	-0.030 (0.242)
<i>Baseline + Election Control</i>						
<i>Democracy Protests (neighbors)</i>	0.051 (0.181)	0.005 (0.891)	-0.020 (0.563)	0.015 (0.578)	-0.005 (0.855)	-0.030 (0.231)

*Note:* OLS regression estimates. All specifications include country-year fixed effects. *p*-values in parentheses. The unit of observation is the country-day. The coefficients in the table are multiplied by 100 for display purposes. (\*) Indicates significance at the 0.05 level.

**Table A6: Election-related Protest in Last Election in Neighbor, 1989-2011 (elections only)**

<i>Logit, country REs</i>	50km Neighbors			800km Neighbors		
	dummy	sum	size	dummy	sum	size
<u>DV: protest within 30 days after election</u>						
<i>Democracy Protests</i> <i>(last election)</i>	0.957 (0.436)	1.076 (0.377)	1.090 (0.368)	1.087 (0.361)	1.103 (0.359)	1.079 (0.366)
<u>Protest success</u>						
<i>All Successful</i>	1.003 (0.416)			1.122 (0.349)		
<i>Some Successful</i>	0.385 (0.325)			0.420 (0.211)		
<i>None Successful</i>	1.333 (0.009)*			0.787 (0.043)*		
<u>Government repression</u>						
<i>All Repressed</i>	1.413 (0.248)			0.993 (0.403)		
<i>Some Repressed</i>	0.649 (0.065)			0.589 (0.065)		
<i>None Repressed</i>	2.378 (0.006)*			0.852 (0.067)		
<u>LPM, country FEs</u>						
<u>DV: protest within 30 days after election</u>						
<i>Democracy Protests</i> <i>(last election)</i>	0.046 (0.086)	0.036 (0.076)	0.012 (0.270)	0.025 (0.231)	0.030 (0.007)*	0.016 (0.039)*
<u>Protest success</u>						
<i>All Successful</i>	0.010 (0.755)			0.022 (0.348)		
<i>Some Successful</i>	0.136 (0.003)*			0.047 (0.123)		
<i>None Successful</i>	-0.027 (0.527)			-0.036 (0.285)		
<u>Government repression</u>						
<i>All Repressed</i>	0.048 (0.098)			0.041 (0.080)		
<i>Some Repressed</i>	0.243 (0.006)*			0.049 (0.218)		
<i>None Repressed</i>	-0.002 (0.974)			-0.026 (0.441)		

*Note:*  $p$ -values in parentheses. The unit of observation is the election. (\*) Indicates significance at the 0.05 level. The models are analyzed using generalized linear models with a logit-link function since the outcome variable is binary, and country random effects to account for any unexplained variance within countries. We use random, instead of fixed, effects, because the latter would exclude from the analysis all countries for which there is no variation in the outcome, in this case, an election-related protest. Unlike in our previous models, we are able to analyze the data using logistic regression because there are not as many cases of non-protests in these data since elections are the unit of analysis as opposed to country-day. By way of comparison, we nonetheless also report the OLS models with country fixed effects.

**Finding Summary:** An election-related democracy protest is not significantly more likely to occur in a target country within 30 days of an election (i.e., election day or 29 days afterwards) if an election-related protest occurred within 30 days (i.e., election day or 29 days afterwards) of at least one neighboring country's last elections in all but a couple of models using three different measures of election-related protests in the target countries, three different measures of neighbors (50km and 800km) and region (not shown), and two different estimation techniques.

**Table A7: Election-related Protest in Last Election in Neighbor, 1989-2011**

<i>LPM, country-year FEs</i>	50km Neighbors			800km Neighbors		
	dummy	sum	size	dummy	sum	size
<u>DV: protest within 30 days of election</u>						
<i>Democracy Protests</i>	0.002	-0.000	0.001	-0.010	-0.006	-0.003
<i>(last election)</i>	(0.849)	(0.973)	(0.901)	(0.199)	(0.298)	(0.411)
<i>Democracy Protests</i>	0.282	0.215	0.115	0.106	0.118	0.072
<i>(last election) × Election</i>	(0.000)*	(0.000)*	(0.000)*	(0.000)*	(0.000)*	(0.000)*
<i>Election</i>	0.211	0.216	0.220	0.212	0.183	0.192
	(0.000)*	(0.000)*	(0.000)*	(0.000)*	(0.000)*	(0.000)*
<u>Protest success</u>						
<i>All Successful</i>	0.006			-0.010		
	(0.657)			(0.272)		
<i>Some Successful</i>	-0.006			-0.008		
	(0.675)			(0.336)		
<i>None Successful</i>	-0.005			-0.003		
	(0.514)			(0.609)		
<i>All Successful</i>	0.163			0.076		
<i>× Election</i>	(0.000)*			(0.000)*		
<i>Some Successful</i>	0.615			0.220		
<i>× Election</i>	(0.000)*			(0.000)*		
<i>None Successful</i>	0.083			-0.037		
<i>× Election</i>	(0.047)*			(0.243)		
<i>Election</i>	0.212			0.210		
	(0.000)*			(0.000)*		
<u>Government repression</u>						
<i>All Repressed</i>	0.006			-0.013		
	(0.647)			(0.121)		
<i>Some Repressed</i>	0.053			0.005		
	(0.173)			(0.728)		
<i>None Repressed</i>	-0.010			0.004		
	(0.633)			(0.760)		
<i>All Repressed</i>	0.287			0.131		
<i>× Election</i>	(0.000)*			(0.000)*		
<i>Some Repressed</i>	1.049			0.348		
<i>× Election</i>	(0.000)*			(0.000)*		
<i>None Repressed</i>	0.038			-0.113		
<i>× Election</i>	(0.431)			(0.000)*		
<i>Election</i>	0.211			0.212		
	(0.000)*			(0.000)*		

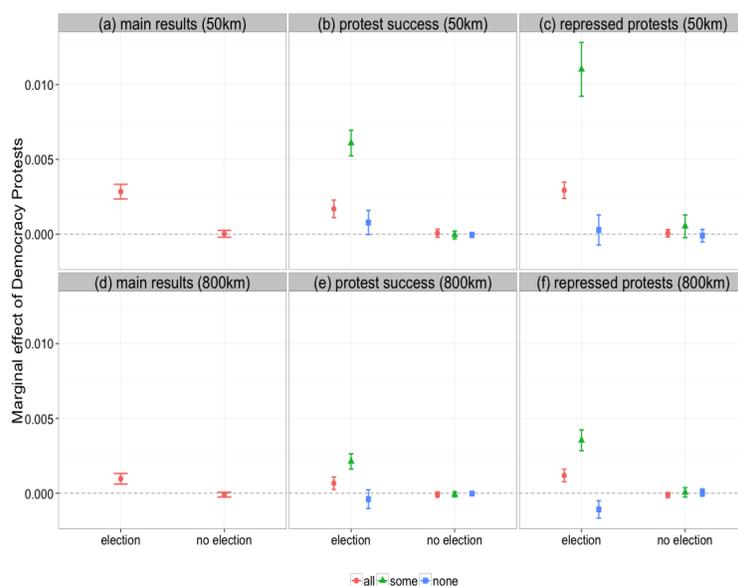
*Note:* *p*-values in parentheses. The coefficients in the last panel are multiplied by 100 for display purposes. (\*) Indicates significance at the 0.05 level.

Finding Summary: A democracy protest is significantly more likely to occur in a target country within 30 days (i.e., election day or 29 days afterwards) of an election if a democracy protests occurred within 30 days (i.e., election day or 29 days afterwards) of a neighboring country's last elections for three different measures of democracy protests in the target country (i.e., dummy, sum, and size) and two different measures of neighbors (50km and 800km).

## Results Comparison of Table A6 and Table A7:

The Table 6 models provide almost no evidence to suggest that the relationship between democracy protests in target countries and neighboring countries is conditional on elections, while Table 7 provides some evidence that it is. The set up of the two sets of models differ in three ways: First, the Table 7 models include all democracy protests while the Table 6 models include only election-related democracy protests. However, in practice, this is not an important difference since all but one democracy protest that occurred in a target country within 30 days of an election is also election-related. Second, the Table 6 models include election-related protests that occurred prior to elections and that occurred over a much wider span of time than the Table 7 models. Third, the unit of analysis in the Table 6 models is the election while in Table 7, it is the country-day, drastically increasing the number of observations in the analysis.

The results in Table 7 are significant but the substantive effect is small. See graphs.



Despite the significance of the results in Table 7, we are reluctant to draw any conclusions from these results that neighboring protests increase the likelihood of democracy protests in target countries around election periods. First, the patterns in government responses to neighboring countries' protests are either not fully consistent or not consistent at all with the expectations of diffusion theories. According to diffusion scholars, democracy protests should be more likely to occur in target countries when neighboring protests are successful (i.e., extract concessions from governments), and are not repressed. However, the likelihood of protests occurring in target countries is not consistently greater when more protests are

successful than fewer protests, or when fewer protests are repressed than when more are repressed. See graphs.

Second, a close inspection of the data indicates that the cases that diffusion scholars point to as examples of diffusion, such as the Orange Revolution (2004), fit the findings, but for the wrong neighbors. The Orange Revolution, for example, is a case of a democracy protest occurring 30 days after an election when a democracy protest occurred in a neighboring country 30 days after its election. But, the neighbor responsible for this result is Belarus (2004), not Serbia (2000) or Georgia (2003), as diffusion scholars argue. The protests in Belarus were not successful and were repressed by the government. Moreover, many activists inside Belarus looked to the Orange Revolution in hopes of larger, successful protests spreading to Belarus, not the other way around. Inspection of other cases in the data do not find any activists alluding to protests in other neighboring countries although activists could be unaware of the subconscious effects that neighboring protests have on them.