Rethinking Democratic Diffusion: Bringing Regime Type Back In

Edward Goldring¹
and Sheena Chestnut Greitens¹

Abstract
Studies of democratic diffusion often emphasize geographic proximity: democratization in a country or region makes democratization nearby more likely. We argue that regime type has been underappreciated; authoritarian breakdown and democratization often diffuse along networks of similar regimes. A regime’s type affects its vulnerability to popular challenge, and regime similarity increases the likelihood that protest strategies developed against one regime are effective against similar regimes. We employ a qualitative case study from China to generate our theory, then test it quantitatively and with out-of-sample cases. We find that regime similarity strongly predicts autocratic breakdown and democratic diffusion, making both outcomes more likely. Including regime similarity significantly reduces the effect of geographic proximity, although geographic proximity may increase the effect of regime similarity. Reinterpreting democratic diffusion as a regime-type phenomenon calls for revision to conventional wisdom on the role of international factors in authoritarian breakdown and democratization.

Keywords
democratization and regime change, China, nondemocratic regimes, political regimes

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Continued waves of protest and democratization in world politics have prompted renewed interest in how international factors shape global patterns of democracy and dictatorship. Democratic diffusion, broadly conceptualized as the transmission of democratization across international borders, occupies a central place in studies of democratization’s temporal and spatial clustering. This literature tends to emphasize the role of geography but has not been precise about a range of mechanisms that might link geographic proximity to democratic diffusion.

Below, we argue that patterns of authoritarian breakdown and democratic diffusion are driven by similarities in regime type much more than has been previously understood. Because geography and regime type have been correlated in previous waves, scholarly work has sometimes mistaken the causal impact of one for the other. Moreover, although this literature contains a proliferation of possible diffusion mechanisms, the absence of rigorous measurement and testing of those mechanisms, combined with the frequent use of geography to operationalize diffusion arguments, has implied that geography is the relevant causal variable, even when theories do not specifically claim that.1 There is, therefore, a mismatch between theory and operationalization throughout much of the democratic diffusion literature.2

Below, we demonstrate that both authoritarian breakdown and democratization diffuse along networks defined by similarity in regime type. We propose a two-step mechanism to explain this finding. First, a regime’s type affects how vulnerable it is to breakdown under pressure from popular contention. Second, as a result, regime isomorphism (defined as similarity in regime type) increases the likelihood that specific protest strategies developed to confront one regime will be effective against another of similar type, thereby resulting in the cases that occur later in a “wave.”3 Accounting for regime similarity significantly reduces the independent effect of geographic proximity, although we also find that geographic proximity may increase the effect of regime similarity.

We make this argument in five sections. In the second section, we explicitly and transparently generate our theoretical puzzle and hypotheses through qualitative historical analysis of a case study: China in 1989. We observe that in 1989, China’s leaders were more concerned about diffusion of regime collapse from single-party regimes in Eastern Europe than from geographically proximate regimes experiencing similar contention in East Asia. We use this descriptive fact to identify our core research question: might diffusion travel along networks of similar regimes, rather than geographically proximate ones?

In the third section, we develop a theory of how regime type and similarity explain the diffusion of authoritarian breakdown and democratization. We
hypothesize that if regime type does in fact structure the vulnerability of a particular regime to popular protest, tactics that work against a regime of one type will have a higher chance of success if they are applied to other regimes in the same regime-type category. Thus, even if protest and contention spread along geographic lines, it is regime type that determines whether protest converts into breakdown and then democratization. From this logic, we generate our core hypothesis: transition in one authoritarian regime will make transitions shortly thereafter in autocratic regimes of similar type more likely. This section also discusses possible interactions between regime type and geography, and addresses the potential impact of regime learning based on authoritarian linkage (Tansey, Koehler, & Schmotz, 2017), proposing that the timing and gradual nature of that learning makes it likely to reinforce the diffusion of breakdown along regime-similarity lines.

In the fourth section, we test our hypotheses. We do this using quantitative tests on data involving 199 autocratic regimes from 1961 to 2010 and additional qualitative evidence from two out-of-sample cases: the 1848 revolutions in Europe, and the Arab Spring. Our results show that regime similarity strongly predicts both autocratic breakdown and democratic diffusion; that regime similarity makes diffusion of breakdown and democratization more likely; and that including regime similarity significantly reduces the effect of geographic proximity, although geographic proximity may increase the effect of regime similarity on regime breakdown or democratization. We also find qualitative support in the out-of-sample cases for the argument that the gradual timing of regime learning contributes to diffusion based on regime similarity. To conclude, we discuss the implications of these findings for further research.

**Generating the Theory: The Importance of Regime Similarity to China in 1989**

The argument above is stated deductively, but its origins are inductive. This section uses a case study of China in 1989 to generate the research question and propose a new independent variable (regime similarity) for further investigation and theory testing.4

In 1989, as the Chinese Communist Party (CCP) experienced significant popular mobilization, it also risked regime collapse diffusing to China from two distinct international sources: geographically proximate countries, and other single-party communist regimes. China in 1989 therefore provides an unusual opportunity to examine and compare the relative weight of these two explanatory factors. If diffusion was salient to the CCP, most studies suggest that the transitions of greatest concern should have been those occurring in countries adjacent to or within the same region as China. As Table 1 shows,
Table 1. Geography in Cross-National Quantitative Studies of Democratic Diffusion.

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<tr>
<th>Reference</th>
<th>Key argument</th>
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<tr>
<td>Starr (1991)</td>
<td>Democratic diffusion “is facilitated by the salience and ease of interaction provided by proximity” (p. 361).</td>
<td>Global, regional (based on continents), and neighbor effects, the latter based on “bordering governmental transition[s]” (p. 372).</td>
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<td>O’Loughlin et al. (1998)</td>
<td>There is temporal and “spatial clustering of regime types” in both democratic and autocratic trends (p. 568).</td>
<td>“True physical contigu[y]” based on the world map (p. 554).</td>
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<td>Pevehouse (2002)</td>
<td>Regional organizations promote shifts toward democracy within their specific geographic regions (p. 542).</td>
<td>The polity score of the most democratic regional international organization of which state $i$ is a member in the previous year (p. 531) and the one-year difference in this score measured in the previous year (p. 532).</td>
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<td>Starr and Lindborg (2003)</td>
<td>The article analyzes the “growth of democracy in the global system [i.e., geographically] and the possibility of diffusion effects” (p. 491) in a “spatial context” where the behavior of neighbors is important (p. 494).</td>
<td>“(2) the first-order effects of contiguous neighbors, and (3) the second-order effects of geographic region” (p. 504).</td>
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<td>Doorenspleet (2004)</td>
<td>Structural factors play a role in generating transitions to democracy; democratic diffusion played a significant positive role post-1989 (p. 311).</td>
<td>1. Geographical diffusion based on contiguous states: “the percentage of democratic neighbors for the years prior to a country’s transition to democracy” (p. 320).</td>
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<td>2. Nongeographical diffusion based on the percentage of diplomats active in a nondemocratic state that were from a democratic state (p. 321).</td>
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<td>Wejnert (2005)</td>
<td>Development variables robustly predict democracy, but “their predictive power fades with the inclusion of diffusion variables” (p. 54).</td>
<td>Diffusion networks are based on geographically proximate subregions (p. 59).</td>
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<td>Brinks and Coppedge</td>
<td>“Countries tend to become more like their immediate geographic neighbors over time” (p. 464).</td>
<td>“[O]ur primary network is the network of contiguous neighbors that surround a target country” (p. 471).</td>
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<td>(2006)</td>
<td>“Transitions to democracy have been clustered geographically, and countries have been far more likely to undergo transitions to democracy following transitions in neighboring states” (p. 916).</td>
<td>“[W]e identify the local context by the proportion of neighboring states within a 500 km radius” (p. 922).</td>
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<td>Gleditsch and Ward</td>
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<td>(2006)</td>
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<td>Leeson and Deen</td>
<td>Investigating the democratic domino theory, they argue that democracy does spread as this theory contends but “democratic dominoes fall significantly “lighter” than foreign policy applications of this principle pretend” (p. 535).</td>
<td>“We search for spatial dependence in changes in democracy across geographic [contiguous] neighbors over time” (pp. 536-537).</td>
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<td>(2009)</td>
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<td>Teorell (2010)</td>
<td>Finds that both increases “in the mean level of democracy among neighboring countries” and “membership in relatively democratic regional organizations” precipitate upturns in the level of democracy (pp. 81-82).</td>
<td>1. Direct contiguity (shared land border or &lt; 400 miles of water).</td>
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<td>2. Average degree of democracy among countries that belong to the same regional organization (p. 167).</td>
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<td>Csordás and Ludwig</td>
<td>Foreign aid can help stabilize democracy “with the neighbor effect working as a regional multiplier” (p. 235).</td>
<td>“[T]he average democracy score of the ten geographically nearest countries” (p. 236).</td>
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<td>(2011)</td>
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<td>Ahlquist and Wibbels</td>
<td>The article’s main argument is about trade, but it also calculates neighborhood democracy levels and transitions (p. 456).</td>
<td>How many neighbors were democracies and whether any neighbors underwent democratic transitions. Neighbors are identified as having a minimum distance from country $i$ as less than 501 km (p. 456).</td>
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<td>(2012)</td>
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<td>Strand et al. (2012)</td>
<td>“[T]he neighborhood of a country and the global context exerts a forceful pull on the setup of its political system,” especially in countries with “less sticky” institutions (pp. 34-35).</td>
<td>1. “The difference between average democracy in the world and the democracy level of the country under observation.”</td>
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<td>2. “The difference between the country’s SIP [Scalar Index of Polities] value and the average SIP in the country’s immediate neighborhood [neighbors are directly contiguous countries].”</td>
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<td>3. “Change in neighbors’ weighted average SIP score from year $t-2$ to year $t-1$” (pp. 20-21).</td>
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<td>Gunitsky (2014)</td>
<td>“[P]eriods of sudden rise and decline of great powers, or “hegemonic shocks,” create powerful incentives and opportunities for sweeping waves of domestic transformations” (p. 562).</td>
<td>1. “the country’s proportion of democratic [contiguous] neighbors”</td>
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<td>2. “the number of [contiguous] neighbors that had transitioned to a democracy over the previous year”</td>
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<td>3. “number of democracies as a proportion of all states in the world” (p. 580).</td>
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<td>Houle, Kayser, and Xiang (2016)</td>
<td>“Following an autocratic collapse, countries with recently democratized neighbors are more likely to choose democracy as their new form of government” (p. 701).</td>
<td>1. Proportion of an autocracy’s neighbors (shared border or within 400 miles by water) that are democratic, both (a) overall, and (b) in most recent two-year period (p. 704).</td>
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<td>2. Regional variable using (a) predefined regions, and (b) a constructed variable that captures both the regime of a country’s direct neighbors and that of its neighbors’ neighbors (p. 704).</td>
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quantitative literature on democratic diffusion often theorizes and/or operationalizes diffusion geographically, using measurements like contiguity, capital-to-capital distance, or membership in a certain region.

Scholarship on geographic and temporal clustering of democracy has investigated the effect of a wide range of factors, from decolonization processes to international and regional organizations, aid conditionality, and economic shocks. Even when scholars carefully noted agnosticism about mechanisms, however (meaning that there was no inherent reason to define spatial distance geographically), the field often proceeded to operationalize diffusion as if geographical proximity was the relevant variable; countries were treated as “spatial neighbors” only if physically proximate, regardless of their relationship or level of interaction (Beck, Gleditsch, & Beardsley, 2006, pp. 27-28; Brinks & Coppedge, 2006, pp. 470-471; Gleditsch & Ward, 2006). Studies that use geographic proximity to operationalize diffusion, then, have made strong and possibly unwarranted assumptions about the nature of the linkages that produce regime change.

A significant subset of the democratic diffusion literature has focused on contagion or demonstration effects that are geographically based. According to this logic, antiregime protests emerge in Country A and are observed by protesters in nearby Country B, who then seek to emulate the positive example of their geographic neighbors—and are sometimes directly assisted by them (Beissinger, 2007; Bunce & Wolchik, 2006, 2011; Lynch, Freelon, & Aday, 2014; Wejnert, 2014). Other geographically proximate countries—Countries C, D, and E—likewise observe and emulate what they see in Countries A and B, again sometimes with direct assistance. Lessons learned slowly in Country A are applied with increasing speed elsewhere, resulting in a “snowball effect” and quick succession of democratic transitions (Huntington, 1991, pp. 100-106; Kuran, 1991)—hence the famous aphorism that democracy took “in Poland ten years, in Hungary ten months, in East Germany ten weeks, in Czechoslovakia ten days!” (Garton Ash, 1990). Protesters’ application of lessons learned from their neighbors creates a “wave” or cascade of democratization across a particular geographic cluster. In these studies, geographic proximity is a key variable that facilitates diffusion.

This apparent consensus about the importance of geography makes China’s reaction in 1989 puzzling. To the extent that the CCP perceived a threat from protest spilling across borders into China, it should have perceived that threat coming from geographically proximate transitions.

Indeed, there was ample evidence on which to base this fear. Popular mobilization had brought democracy to the Philippines (1986), South Korea (1987), and Taiwan (1987), and prompted autocratic replacement in Myanmar (1988). These events occurred alongside significant contention inside China
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(Kwong, 1988), making cross-border diffusion even more plausible. There was thus real basis for concern in Beijing about the geographic diffusion of protest, regime breakdown, and democratization.

But the arguments that China’s leaders made in 1989 about the risk of cross-border spillover of contention and collapse were not about threats from geographic neighbors. Instead, the CCP framed the diffusion threat as coming from other single-party communist regimes, including both the Soviet Union and the communist regimes of Eastern Europe. The Union of Soviet Socialist Republics (USSR) loomed especially large in Chinese thinking, especially after its disintegration in 1991, but because it is both a geographic neighbor and a similar regime, it does not help us disentangle the role of these two possible explanatory factors. For that reason, our theory-generation focuses on comparing the diffusion risks that Beijing perceived from East Asia (proximate, nonsimilar) and Eastern Europe (nonproximate, similar).5

CCP leaders placed immense importance on developments in Eastern Europe in 1989, especially Poland and Hungary. Their concern was specifically about demonstration effects: that protest would spread from Europe to China as Chinese protesters emulated Polish and Hungarian examples. Premier Li Peng told President Bush in February 1989 that China sought to avoid “the kind of labor problems that Poland is experiencing” (Sarotte, 2012, pp. 164-167); he drew direct parallels between protesters’ actions in Poland and in China, from the names of protest organizations to their demands for legalization. Deng Xiaoping and other CCP leaders further argued that China’s protesters were influenced by a “wave of bourgeois liberalism” in Eastern Europe, and feared that emulation of these examples would produce “a situation like in Poland” (Sarotte, 2012, pp. 170-171). As unrest intensified, China confirmed its belief that the threat was to regimes of a common type, reaching out to East Germany, Czechoslovakia, North Korea, Cuba, Bulgaria, and Romania—all single-party communist regimes (Marsh, 2005; Miles, 1996; Sarotte, 2012; Yang, 1998, pp. 256-257).

Perceptions of regime similarity as the source of threat precipitated an analogical reasoning process (Khong, 1992, pp. 20-21) that determined how China’s leaders defined the stakes of their crisis (single-party regime survival); identified risks (protesters’ emulation of European examples); and prescribed solutions (block emulation by avoiding similar concessions). Polish and Hungarian comparisons, for example, heightened Beijing’s wariness of “peaceful evolution” (和平演变, heping yanbian) and hardened resistance to concessions. Politburo member Yao Yilin asserted, “[w]hat happened in Poland and Hungary is the result of repeatedly making concessions . . . We must on no account take the Polish road or the Hungarian road” (Shambaugh, 2008, p. 44). Transnational religious identification was
also framed as a possible vehicle for infiltration of dissidence (Koesel, 2014; Luo, 1996; Marsh, 2011) based on the example of Polish Pope John Paul II. Well into the 1990s, China’s regime-directed think tanks and research institutes produced a voluminous literature focused on mistakes made in other single-party communist regimes, prescribing ways for China to avoid those errors (Shambaugh, 2008). 6

Beijing’s fixation on similar but distant regimes is perplexing, given the diffusion literature’s emphasis on geographic proximity. That literature offers no good reason to take China’s focus on the breakdown of single-party rule in Europe for granted, especially when the CCP was simultaneously observing transitions that were geographically proximate. If geographic proximity is a principal determinant of democratic diffusion, then why was it not more salient in the eyes of China’s leaders?

We first checked to make sure that English-language scholarship had not simply overlooked this concern. Using research that examined Beijing’s concerns about the USSR and Eastern Europe as our baseline (Casarini, 2012; Shambaugh, 2008), we constructed a parallel analysis of how Chinese-language sources treated East Asia’s political transitions. 7

We found that in fact, the CCP was not particularly concerned about East Asia’s authoritarian breakdowns and democratic transitions. It was more concerned about the regime breakdowns occurring in similar regimes in Eastern Europe.

1. There are simply very few articles about transitions among China’s geographic neighbors. Of the articles that do discuss neighboring countries, almost none identify causes of regime breakdown or prescribe lessons for China. There are, for example, no analyses of breakdown and transition in either South Korea (a military regime) or the Philippines (personalist). By contrast, Shambaugh (2008) and others document numerous studies of Eastern Europe’s transitions, all focused on outlining causes of collapse in single-party regimes and implications for the CCP.

2. The Asian regimes that do receive (limited) attention are socialist or single-party regimes: Taiwan, Singapore, and Myanmar (which Chinese analysts frame principally as a socialist rather than military regime). Moreover, any lessons that these analysts extract are based on perceived similarities in regime type—such as the role of the ruling party—rather than geographic proximity. Articles on Taiwan, for example, focus on what the CCP can learn from declining KMT party strength, while Singapore’s intraparty succession is used to inform the CCP’s own generational evolution.
3. There is more discussion of how/why Europe’s political transitions matter for China’s role in East Asia than of how transitions in Asia might matter (Yun, 1993; Zeng, 1990).

Simply put, in 1989, China’s leaders believed and acted as if regime similarity, not geography, drove the risk of autocratic breakdown and democratic diffusion. The CCP overwhelmingly focused on the threat of diffusion from distant-but-similar regimes in Eastern Europe, and virtually ignored transitions in Asian geographic neighbors of a different regime type.

This observation generates our central research question: Do autocratic breakdown and democratization diffuse across geographically proximate countries, or along networks of countries that share a regime type? Our main theoretical proposition, which we test below, is that the CCP’s belief in the importance of regime similarity is correct and that not accounting for this variable has led to an inflated emphasis on the role of geographic proximity.

We are not the first scholars to note that similarities in countries’ characteristics could facilitate diffusion (e.g., Bunce, 1999; Bunce & Wolchik, 2013; Kramer, 2013; O’Loughlin et al., 1998). Beissinger (2007), for example, writes that

> modular phenomena are made possible by the sense of interconnectedness across cases produced by common institutional characteristics, histories, cultural affinities, or modes of domination, allowing agents to make analogies across cases and to read relevance into developments in other contexts. (p. 263)

Studies of the early Third Wave drew cultural links between transitions in southern Europe and Latin America (Lijphart, 1990; Whitehead, 1996), while Omar Bongo’s famous statement (“the winds from the east are shaking the coconut trees”) connected Eastern Europe’s transitions to increased contention and a shift toward multiparty-ism in Soviet-influenced Africa (Anglin, 1990; Decalo, 1992). As yet, however, comparative politics lacks precise theorization and systematic testing of how regime similarity might influence diffusion of autocratic breakdown and democratization. The following sections build on insights from previous studies to explicate and test the effect of regime similarity on democratic diffusion.

**Specifying the Theory: The Expected Effect of Regime Type on Authoritarian Breakdown and Democratization**

Recall the mechanism outlined above: protests in Country A are observed and emulated by protesters in Countries B, C, and D. These studies purport to
explain the diffusion of democratization, but the process described explains only the first step: diffusion of popular protest (Hale, 2013; Heydemann & Leenders, 2011; Houle, 2009). Although there are cases where the sequence from protest to democratization is very tightly coupled, more often, additional steps are required to convert protest into authoritarian breakdown, and breakdown into democratization, as shown in Figure 1.

Protesters may demand transition, but breakdown occurs only if the regime lacks the will or capacity to defuse or quell protest. Many regimes seek to demobilize protesters and stay in power, either by offering concessions short of democratization or suppressing demonstrators by force (Ambrosio, 2009; Barany, 2011; Bueno de Mesquita et al., 2003; Diamond, 2010; Ziblatt, 2006). A full theory of breakdown and democratization, therefore, requires us to consider why protest produces breakdown and democratization at some times, but fails to do so at others.

We propose that regime similarity plays a key role in determining whether protests succeed or fail in producing regime breakdown. Recent research suggests that antiregime protesters employ cognitive shortcuts: They latch onto examples and copy tactics that are easily available, without careful consideration of whether or how these tactics will work in a different political environment (Bamert, Gilardi, & Wasserfallen, 2015; Weyland, 2014, 2016). A country’s specific form of authoritarianism, however, shapes its vulnerability to protest and opposition from below. Previous studies have uncovered correlations between regime type and patterns of transition (Geddes, 1999; Geddes, Wright, & Frantz, 2014; Lee, 2015; Ulfelder, 2005), suggesting that different regime types have interests, structures, and tools that either make them vulnerable or facilitate survival in the face of popular mobilization. Thus without necessarily realizing it, protesters who copy tactics in a “wave” of protest are likely confronting regimes with varying levels of vulnerability. We expect this variation in vulnerability, based on regime type, to systematically affect whether protest converts to authoritarian breakdown.

Below, we define regime types as similar if they share key leadership and institutional features, which we operationalize using Geddes et al.’s (2014) classifications (see explanation below). Original studies of diffusion were unable to disaggregate authoritarian regimes by type, but scholars have since found that regime type matters for outcomes including economic growth.
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(Wright, 2008), governance (Charron & Lapuente, 2011), international cooperation and conflict (Mattes & Rodriguez, 2014; Weeks, 2012), and pathways of transition (Brownlee, 2009; Geddes et al., 2014; Hadenius & Teorell, 2007; Ulfelder, 2005; Wright & Escriba-Folch, 2012). Our work integrates this expanding literature on authoritarian regime subtype into long-standing debates on democratic diffusion.

We expect that regime isomorphism—similarity in regime type—will play a critical role in determining whether protest that converts to breakdown in one place produces the same outcome in another. Regime isomorphism contributes to the diffusion of breakdown because it improves the likelihood that protest tactics developed against one regime will work against the second, third, and fourth regimes so confronted. In “modular phenomena,” protesters analogize from neighbors’ situations to their own (Beissinger, 2007, p. 263). But some analogies are better than others; protesters who rely on analogical reasoning to choose tactics more often succeed if their analogies are appropriate and accurate. Similar tactics are more likely to work if the regimes targeted are also similar. To use (and perhaps contort) a common analogy: if the tactics that diffuse across protest movements are square pegs, adopted because they were originally aimed at a particular square hole, they are more likely to fit in other square holes than in round ones. The protest tactics that succeed against one military dictatorship are more likely to be effective against other military regimes than single-party autocracies. *Ceteris paribus,* if protesters copy tactics from neighbors, those tactics are more likely to succeed if the regimes targeted do indeed share similar features (or flaws).

Our central hypothesis is therefore as follows:

**Hypothesis 1 (H1):** Breakdown in an authoritarian regime will make breakdown in other authoritarian regimes of a similar type more likely.

**Testing Interactions Between Regime Type and Geography**

We also note that our theory could be interpreted to suggest a possible relationship between regime type and geography. If the contention that triggers regime breakdown diffuses primarily to geographically proximate countries, then geography or region will act as either an enhancing or a limiting factor on regime-based diffusion processes. In that case, we would observe an interaction between regime type and geography, where the effect of regime type on breakdown is particularly strong when countries are closer to each other.

One example of this effect may be the limits of diffusion during the Arab Spring: numerous presidential republics fell in the Middle East and North
Africa while monarchies survived, but breakdown did not spread beyond the MENA region to presidential republics in sub-Saharan Africa. In areas where regime type and geography are highly correlated—where underlying factors produced geographical clusters of similar regimes, as Soviet hegemony produced a cluster of single-party communist regimes in Europe, for example (Hale, 2013)—we would expect high rates of consistency between protest diffusion and breakdown. If an area has heterogeneous regime types, however, then rapid geographic diffusion of protest would produce lower rates of conversion to breakdown, with patterns of breakdown determined principally by regime similarity. Our second hypothesis therefore tests for interactions between regime type and geography:

**Hypothesis 2 (H2):** The effect of authoritarian breakdown in similar regimes is stronger in more proximate regimes.

**The Role of Authoritarian Learning**

We now consider whether regime isomorphism could have a different effect: autocracies under pressure from protest could observe protest challenges in similar regimes abroad, learn from their mistakes, and take steps to avert the same outcome at home. In that case, a second or third country’s similarity to the first would make breakdown less likely, not more.

Indeed, authoritarian regimes do watch and learn from each other. They participate in global nondemocratic networks that allow them to observe, communicate, and learn about warning signs of instability and techniques that facilitate survival (Danneman & Ritter, 2014; Heydemann & Leenders, 2011; Koesel & Bunce, 2013; Slater & Wong, 2013; Tansey et al., 2017; Tolstrup, 2015). Moreover, membership in these networks is correlated with regime type (Mattes & Rodriguez, 2014; Sarotte, 2012; Yom, 2014). Early diffusion research suggested that greater interaction among members of a social system leads to greater possibilities of exchange and common policy adoption within that system (Rogers, 1995, p. 10; Brinks & Coppedge, 2006, pp. 470–471). It is therefore possible that regime similarity facilitates autocratic learning.

Whether and how authoritarian learning alters the effect of regime similarity on breakdown, however, will depend on the timing of that learning. Once a crisis has begun, learning can only avert breakdown if it is done quickly. Current research suggests instead that regime learning is a slower, more gradual process; the speed with which waves of protest diffuse does not leave sufficient time for *intra-crisis* learning to diffuse among authoritarian regimes (Weyland, 2016; Yom & Gause, 2012).¹⁰ Weyland (2016), for example, finds
that “counterrevolutionary” efforts by European elites who sought to contain or roll back the revolutions of 1848 took years, rather than weeks or months. If authoritarian learning is gradual, then similar regimes would be more likely to fall in the short term; in the longer term, however, survivors could learn from others’ failure and “harden” themselves for the future, thereby increasing their chances of survival.

Thus, we believe that authoritarian learning reinforces the likelihood of a positive near-term correlation between regime type and breakdown. If authoritarian regimes of similar types form networks that enable them to learn, collaborate, and emulate, then those networks, over time, will amass both common strengths and common vulnerabilities. As a result, some regime-type-based networks will be inoculated against particular protest tactics, while others will be vulnerable; when crisis hits, the latter will be unlikely to learn fast enough to ensure survival. As we discuss below, there is evidence beyond China that this phenomenon has occurred—for example, among Arab monarchies of the Middle East and North Africa (Yom, 2014). Authoritarian breakdown and democratization should therefore still diffuse along networks defined by regime similarity, as predicted by H1.

**Beyond Authoritarian Breakdown: Predicting Democratization**

Figure 1 highlights that democratization is another step beyond authoritarian breakdown. Breakdown does not always produce democracy; since 1945, “more than half of regime breakdowns were transitions from one autocracy to another” (Geddes et al., 2014, p. 313; Houle, Kayser, & Xiang, 2016). Only some countries that experience protest proceed to regime breakdown; an even smaller number convert breakdown into democratization.

Regime similarity should predict diffusion of both breakdown and democratization, for two reasons. First, we argue above that when protesters analogize correctly (using similar tactics against similar regimes), they are more likely to succeed in generating breakdown. We further hypothesize that the protest movements that are sophisticated enough to analogize appropriately in the first stage will be more likely to do so again in the second stage. Successful analogizing at the protest-to-breakdown stage is likely correlated with successful analogy-based learning at the breakdown-to-democratization stage. Second, on the other side of the interaction, regimes that share specific vulnerabilities to popular mobilization may also share other features conducive to both breakdown and democratization, such as a military that supports democratization, or is at least willing to negotiate and compromise with protest leaders. We find support for this expectation in past studies that show
correlations between regime type and the conversion of breakdown into
democracy (Geddes, 1999; Geddes et al., 2014; Lee, 2015; Ulfelder, 2005).

We note, however, that regime similarity may have a weaker impact at
the second stage of the transition process. Protesters who unite to topple a
leader (what Beissinger (2007) calls a “negative coalition”) can splinter
afterward: postdemocratization preferences may diverge and previously
united activists can end up competing against each other for power.
Therefore, although regime similarity should still make diffusion of democ-
ratization more likely, its predictive power may not be as strong as it was
for authoritarian breakdown.

Finally, paralleling our argument for regime breakdown, we expect to see
an interaction between geography and regime type, where regime similarity
exerts the strongest effect on physically proximate regimes, as compared
with ones that are geographically more remote.

Our third hypothesis is the following:

**Hypothesis 3 (H3):** Democratizations in autocratic regimes will increase
the likelihood of democratization among regimes of a similar type and
will have larger effects on similar regimes that are also more geographi-
cally proximate.

**Empirical Strategy and Findings**

To test our hypotheses, we employ spatial econometrics, increasingly the pre-
ferred tool to analyze diffusion due to the accuracy with which they model
theoretical processes (Beck et al., 2006; Franzese & Hays, 2007, 2008; Ward
& Gleditsch, 2008). Recent methodological work in political science notes
that connectivity rather than “geography, proximity and contiguity” drives
spatial dependence (Neumayer and Plümper, 2016, p. 179), and urges schol-
ars to move beyond the geographic emphasis captured in Table 1 to explore
other drivers of spatial clustering and dependence. This approach is particu-
larly valuable because, as Zhukov and Stewart (2013, p. 273) note, misiden-
tifying a network of spatial “neighbors” that partly but incompletely overlaps
with the actual network risks failing to accurately identify the diffusionary
process at work—what we believe has happened when networks based on
regime type have been characterized as geographic ones. We therefore follow
a growing body of work in comparative politics and international relations
that explicitly tests the importance of geographic and nongeographic net-
works (Cao, 2010; Danneman & Ritter, 2014; Elkins, Guzman, & Simmons,
2006; Fortunato, Swift, & Williams, 2018; LaFree, Xie, & Matanock, 2018;
Williams & Whitten, 2015).
Two recent studies use nongeographic spatial networks to analyze democratic diffusion. Zhukov and Stewart (2013, p. 285) find that alliance/intergovernmental ties outperform geography in explaining democratization during the Arab Spring, while Beck et al. (2006, p. 35) find that much of the spatial clustering of democracy among trade partners can be accounted for by geography. We follow these studies in using different specifications of the connectivity weights matrix $W$ to test, rather than assume, how neighbors are defined and how they affect each other, but focus on a previously omitted variable: similarity in regime type.

Our models therefore explicitly test whether autocratic breakdown and democratization are driven more strongly by regime similarity or geographic proximity. To operationalize regime similarity, we employ Geddes, Wright, and Frantz’s (2014) dataset (hereafter GWF) of autocratic regimes from 1946 to 2010. We use this dataset for several reasons. First, it covers a longer time-frame than common alternatives, allowing us to include most post–World War II “waves” in our analysis. Second, it differentiates between autocratic spells, regime change, and leader turnover, allowing us to most accurately operationalize our dependent variables of interest. Finally, GWF most accurately operationalizes the leadership and institutional features that we believe combine to shape a regime’s vulnerability to diffusionary protest. There are admittedly tradeoffs; for example, regime type does not perfectly capture specific attributes that might condition vulnerability to protest, such as the makeup of the coercive apparatus (Greitens, 2016) or the degree of competitive authoritarianism (Brownlee, 2009; Donno, 2013; Levitsky & Way, 2010; Miller, 2017). The GWF data do, however, capture overall leader and institutional categories with a greater degree of accuracy than major alternatives; in our view, the potential drawbacks are offset by this central advantage, the longer time frame, and the match between the theorized dependent variables and GWF’s measurements.

Our first dependent variable is Autocratic breakdown, coded 1 if an autocratic regime broke down, and our second is Democratization, coded similarly. We estimate an SLX-logit model with standard errors clustered by country, which allows for “exogenous interaction effects among the explanatory variables” (Vega & Elhorst, 2015, p. 343). In other words, a change in an explanatory variable for unit $j$ at $t - 1$ can influence the dependent variable in unit $i$. SLX-logit is more appropriate than a spatial autoregressive (SAR) model because a SAR model assumes that outcomes are simultaneously spatially dependent on each other; by using spatial lag variables in an SLX-logit model, we can model the effect of autocratic breakdown among different types of neighbors at $t - 1$ on the focal observation at time $t$. The model is defined as:
\[ y = \theta_1 W_1 y_{t-1} + \theta_2 W_2 y_{t-1} + X\beta + \epsilon, \quad (1) \]

where

- \( y \) is a binary variable, *Autocratic breakdown* for H1 and H2 or *Democratization* for H3.
- \( \theta_1 W_1 y_{t-1} \) is a spatial lag variable, *Similar regime autocratic breakdown (lag)*, indicating the effect of autocratic breakdowns in the previous year among similar regimes. We lag the independent variable to model the temporal dimension of our theorized process, and to mitigate concerns about simultaneity bias. \( W_1 \) is a non-row-standardized connectivity weights matrix specifying that regimes are similar based on indicators for single-party, military, personalist regimes, and monarchies in GWF (2014).\(^{12}\) \( y \) is a vector of whether an autocratic regime broke down (for H1 and H2), or democratized (for H3), both using GWF (2014).
- \( \theta_2 W_2 y_{t-1} \) is a spatial lag variable, *Geographic neighbor autocratic breakdown (lag)*, indicating the effect of autocratic breakdowns in the previous year\(^{13}\) among geographically proximate regimes.\(^{14}\) \( W_2 \) is a non-row-standardized connectivity weights matrix identifying regimes as geographic neighbors if they are contiguous by land or river border (Stinnett et al., 2002).\(^{15}\) We also construct this variable based on democratizations to test H3.
- \( X\beta \) is a matrix of control variables, described below.
- \( \epsilon \) is the error term.

We include a matrix of control variables comprised of prominent explanations from previous work on democratic diffusion, both for reasons of theoretical appropriateness and to facilitate comparison of our results with past studies.

- First, we account for the effects of economic development by including *GDP per capita logged* and *Growth* (Lipset, 1959; Triesman, 2015; World Bank 2017).
- We account for the potential effects of conflict (Gleditsch & Ward, 2006; Piplani & Talmadge, 2016) by including *Interstate war*, a dummy variable coded 1 if the regime is involved in an interstate war (Sarkees & Wayman, 2010).\(^{16}\)
- Following Gleditsch and Ward (2006), we include a dummy indicator for *Civil war* (Allansson, Melander, & Themnér, 2017;
Gleditsch et al., 2002) which we expect to be positively associated with Autocratic breakdown and Democratization.

- We also follow Gleditsch and Ward (2006) by accounting for the annual Global democracy level (Marshall & Jaggers, 2005), expected to correlate positively with Autocratic breakdown and Democratization.
- Finally, we follow Brinks and Coppedge (2006) by including a dummy for Former British colony, expected to be positively correlated with Autocratic breakdown and Democratization.

**Empirical Findings: Autocratic Breakdown and Regime Similarity**

We now turn to statistical examination of H1: that autocratic breakdown diffuses along networks of similar regimes and that, therefore, autocratic breakdown will increase the likelihood of autocratic breakdown among regimes of a similar type. Model 1 of Table 2 estimates equation 1, but excludes $\theta_1 W_{it} y_{i-1}$, the spatial lag variable Similar regime autocratic breakdown (lag) (the variable that indicates the effect of autocratic breakdowns among similar regimes). Model 2 of Table 2 then estimates equation 1 again, this time including Similar regime autocratic breakdown (lag); this tests whether regime similarity or geography is a stronger predictor of autocratic breakdown. Overall, Table 2 strongly suggests that regime similarity makes diffusion of autocratic breakdown more likely and that it outperforms geographic proximity in predicting Autocratic breakdown.

Models 1 to 2 suggest that previous studies may have overestimated the effect of geography. Geographic neighbor autocratic breakdown (lag) has a positive but statistically insignificant effect on the likelihood of Autocratic breakdown, even before considering the effect of regime similarity. Among the control variables, higher levels of Growth and GDP per capita logged make autocratic breakdown less likely, while states in intrastate conflict are more likely to break down. Interstate war, Former British colony, and Global democracy level do not have statistically significant effects.

Second, Model 2 provides strong support for H1. Similar regime autocratic breakdown (lag) is positive and statistically significant at 99% confidence, meaning that autocratic breakdowns among similar autocratic regimes have a positive effect on the likelihood of Autocratic breakdown. Furthermore, Geographic neighbor autocratic breakdown (lag) remains statistically insignificant, with a notably larger p value than in Model 1. The findings from the control variables are consistent across models. Model 2, with Similar regime autocratic breakdown (lag) included, is also a superior model fit based on the Akaike information criterion and explains a greater level of variation in the dependent variable based on the pseudo $R^2$. 

We next turn to an assessment of substantive effects. The nonlinear nature of the SLX-logit and use of weights matrices mean that substantive significance is best demonstrated via quantities of interest, rather than by simply comparing coefficients. Figure 2 illustrates the increasing probability of Autocratic breakdown based on increasing values of Similar regime autocratic breakdown (lag), holding other variables at their mean (continuous) or mode (binary). (The histogram in the bottom half of Figure 2 captures the distribution of Regime neighbor autocratic breakdown (lag).) It shows that as

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**Table 2. Effects of Autocratic Breakdowns in Regime and Geographic Neighbors on the Likelihood of Autocratic Breakdown.**

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar regime autocratic breakdown (lag)</td>
<td>.19***</td>
<td>.18**</td>
</tr>
<tr>
<td>Similar regime × Geographic neighbor autocratic breakdown (lag)</td>
<td>.15</td>
<td>.43</td>
</tr>
<tr>
<td>Geographic neighbor autocratic breakdown (lag)</td>
<td>.17</td>
<td>.06</td>
</tr>
<tr>
<td>GDP per capita logged</td>
<td>−.26**</td>
<td>−.26**</td>
</tr>
<tr>
<td>Growth</td>
<td>−.07****</td>
<td>−.07****</td>
</tr>
<tr>
<td>Civil war</td>
<td>.58**</td>
<td>.57***</td>
</tr>
<tr>
<td>Interstate war</td>
<td>−1.34</td>
<td>−1.36</td>
</tr>
<tr>
<td>Former British colony</td>
<td>−.32</td>
<td>−.32</td>
</tr>
<tr>
<td>Global democracy level</td>
<td>&lt;−.01</td>
<td>−.02</td>
</tr>
<tr>
<td>Constant</td>
<td>−1.18*</td>
<td>−1.39**</td>
</tr>
<tr>
<td>N</td>
<td>2,819</td>
<td>2,819</td>
</tr>
<tr>
<td>AIC</td>
<td>1,013.82</td>
<td>1,008.16</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>.07</td>
<td>.08</td>
</tr>
</tbody>
</table>

Unit of analysis is autocratic regime-year, spanning 1961 to 2010. Dependent variable is Autocratic breakdown, coded 1 if an autocratic regime broke down. Robust standard errors in parentheses clustered by country. AIC = Akaike information criterion.

*p < .05. **p < .01. ***p < .001.
a regime observes more autocratic breakdowns among similar regimes, its probability of Autocratic breakdown increases substantially.

Because Autocratic breakdown is relatively infrequent, we analyze changes in predicted probabilities to further illustrate the substantive effect of variation in Similar regime autocratic breakdown (lag). We hold all control variables at their mean (continuous) and mode (binary). Results appear in Table 3.

The median value of Similar regime autocratic breakdown (lag) is 1 (meaning that one regime of a similar type broke down in the prior year). As Table 3 shows, increasing Similar regime autocratic breakdown (lag) from 1 to 3 (the 95th percentile value) causes a 43.09% increase in the likelihood of Autocratic breakdown. Increasing Similar regime autocratic breakdown (lag) from 1 to 6 (the maximum value) leads to a 141.22% increase. In the sample of 2,819 autocratic regime-years used in Model 2, 36 observations experienced 6 similar-regime breakdowns in the previous year, demonstrating that this scenario is not purely hypothetical.

A comparison of quantities of interest for the two spatial lag variables offers additional evidence that autocratic breakdown diffuses through similar
Table 3. Changes in Predicted Probability of Autocratic Breakdown Based on Variation in Similar Regime Autocratic Breakdown (Lag) and Geographic Neighbor Autocratic Breakdown (Lag).

<table>
<thead>
<tr>
<th></th>
<th>Median to 95th percentile</th>
<th>Median to largest value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Similar regime autocratic breakdown (lag)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in predicted probability</td>
<td>.0162</td>
<td>.0531</td>
</tr>
<tr>
<td>Percent change in predicted probability</td>
<td>43.09%</td>
<td>141.22%</td>
</tr>
<tr>
<td><strong>Geographic neighbor autocratic breakdown (lag)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in predicted probability</td>
<td>.0021</td>
<td>.0044</td>
</tr>
<tr>
<td>Percent change in predicted probability</td>
<td>5.60%</td>
<td>11.73%</td>
</tr>
</tbody>
</table>

95% confidence intervals in brackets. Changes in predicted probability calculated after estimating Model 2. All other variables held at their mean (continuous) and mode (binary).

regimes. In the bottom half of Table 3, we calculate changes in the predicted probability of Autocratic breakdown based on different values of Geographic neighbor autocratic breakdown (lag). We again use the median, 95th percentile, and maximum values to compute these changes; all control variables are held at their mean (continuous) or mode (binary). As the bottom half of Table 3 shows, the effects of altering the value of Geographic neighbor autocratic breakdown (lag) are considerably smaller than changes associated with Similar regime autocratic breakdown (lag); consistent with Model 2 in Table 2, changes in predicted probability are statistically insignificant at the 95% confidence level.

We believe that the results presented here likely understate the effect of regime type on the diffusion of autocratic breakdown, for two reasons. First, Model 2 only estimates the effect of autocratic breakdowns in similar regimes in the subsequent year—a relatively short time frame. The fact that we still find statistical and substantive significance for the regime-type spatial lag variable thus offers strong support for our theory. Second, our data end at 2010, excluding the Arab Spring. Given the strong association between regime type and transition in the Arab Spring, discussed below, we anticipate that extending the data past 2010 would strengthen these results.
We conduct a number of robustness checks, documented in Supplemental Appendix B. First, we test the effects of various forms of geographic proximity, rather than contiguity, on Autocratic breakdown. We then exclude Similar geographic autocratic breakdown (lag) to alleviate potential concerns about including multiple spatial lag variables in one model. Other robustness checks include controlling for regime duration; adding annual dummy variables to check that our results are not driven by temporal shocks; and estimating a spatial Durbin model to ensure our findings relating to regime-based diffusion are robust to modeling geographic-based diffusion as a simultaneous process. Our results hold: the positive and statistically significant effect of Similar regime autocratic breakdown (lag) holds at least at 99% confidence in all but one robustness test (when the variable reaches the 90% confidence level).

The Relationship Between Regime Type and Geography

We next examine H2, which proposes that authoritarian regimes are more strongly influenced by breakdowns in similar regimes when those regimes are also more geographically proximate.

To test H2, we introduce an additional spatial lag variable—Similar regime × Geographic neighbor autocratic breakdown (lag)—that interacts the effects of similar regime-based and geographic-based diffusions of autocratic breakdown. This spatial lag variable is calculated in a similar manner to the existing spatial lag variables, except regimes are now identified as neighbors in the spatial weights matrix if they are both similar and geographically proximate. Thus, a positive coefficient for Similar regime × Geographic neighbor autocratic breakdown (lag) would indicate that authoritarian regimes are more strongly influenced by breakdowns in geographically proximate similar regimes than by breakdowns in similar but distant ones.

Model 3 in Table 2 reestimates Model 2 with this interaction term included. There is some evidence to support H2: The coefficient for Similar regime × Geographic neighbor autocratic breakdown (lag) is positive, as expected, but not statistically significant. We interpret these results to suggest that authoritarian regimes may be more strongly influenced by breakdowns in similar regimes that are also geographically proximate than similar regimes that are further away.

Beyond Diffusion of Autocratic Breakdown: Regime Similarity and the Diffusion of Democratization

H3 suggests that democratization will make democratic transitions in similar regimes more likely. We therefore reestimate our models with alternative
spatial lag variables using Democratization as the dependent variable. Model 4 is a reestimation of Model 1, testing the effect of geography before regime similarity is included; Model 5 adds regime similarity, paralleling Model 2 but with Democratization as the dependent variable; Model 6 tests the interaction effect of democratizations in similar and geographically proximate regimes. Results appear in Table 4.

Table 4 offers strong support for H3. In Model 4, Geographic neighbor democratic transition (lag) has a positive effect on the likelihood of Democratization at 95% confidence. In Model 5, which now includes...
regime similarity, the coefficient size and statistical significance of *Geographic neighbor democratic transition (lag)* are both reduced, while *Similar regime democratic transition (lag)* has a positive and statistically significant effect on *Democratization* at 99.9% confidence. In Model 6, the coefficient for the interaction effect—*Similar regime × Geographic neighbor democratic transition (lag)*—is again positive but not statistically significant. Similar to the findings on autocratic breakdown, this suggests that democratizations in proximate similar regimes may have a stronger effect on whether an authoritarian regime democratizes than the effect of democratizations in more distant similar regimes. Overall, consistent with H3, we find evidence that democratization diffuses along networks of similar regimes and that this effect may be stronger among geographically closer regimes. Our findings on H3 are robust to tests similar to those employed for H1; details appear in Supplemental Appendix B.

**Out-of-Sample Tests: Europe’s 1848 Revolutions and the Arab Spring**

Two other cases, not used either to generate our theory or test it statistically, provide corroboration for our arguments. During the 1848 revolutions in Europe, Weyland (2016, p. 221) finds that protesters motivated by the overthrow of a liberal constitutional republic in France initiated contention against very different regimes in Austria and Prussia—an example of protesters using cognitive shortcuts to challenge regimes of very different types. By contrast, counter-revolutionaries in Berlin favored analogies to Austria rather than France because of what were essentially regime similarities: Prussia and Austria were both semi-absolutist monarchies with cohesive militaries, whereas France was not. Those analogies shaped the perceptions and behavior of regime decision-makers in Berlin as they sought to stem the diffusion of revolution from Austria into Prussia, and shaped longer term patterns of counterrevolution.

The Arab Spring further demonstrates the explanatory logic and predictive power of regime similarity for the diffusion of authoritarian breakdown. Nearly every country in the Middle East and North Africa (MENA) experienced popular mobilization, but transition outcomes differed dramatically: incumbent replacement occurred in just four countries, and only Tunisia democratized (Barany, 2011; Brownlee, Masoud, & Reynolds, 2015). Regime subtype correctly predicted a high percentage of these outcomes: monarchies survived, while presidential “Arab Republics” were more likely to break down (see Table 5).
During the Arab Spring, protests began in Tunisia and spread rapidly across the MENA region. Protesters quickly copied tactics from neighboring countries, including the use of Facebook for mobilization or choosing symbolic public spaces as protest sites (della Porta, 2014; Patel, Bunce, & Wolchik, 2014; Saideman, 2012), resulting in unrest that spread rapidly across very different regimes. Contention thus spread across the MENA region, and the subsequent ability of protest movements to produce autocratic breakdown depended on the type of regime they confronted. Different institutional characteristics created varying levels of underlying vulnerability to popular protest, and affected what tools were available to address the challenges of mass mobilization.

Specifically, Arab monarchies appeared to have particular strengths (Heydemann & Leenders, 2011; Menaldo, 2012; Yom, 2014). Consistent with our theory about regime learning above, these monarchies formed a network that promoted shared and monarchically specific principles, tools, and strategies of opposition management: for example, emphasizing the legitimacy of hereditary succession or employing court-based patronage institutions—tools that non-monarchical regimes simply lacked. During the Arab Spring, monarchs therefore perceived the threat they faced to be fundamentally different than the threat to their non-monarchical counterparts: like the CCP in 1989, they believed that regime type affected their vulnerability in the face of diffusionary protest. Practically, as the crises unfolded, monarchies also enjoyed greater loyalty from and cohesion within their coercive apparatus, whereas non-monarchies were more likely to experience security force defection or disintegration (Brownlee et al., 2015). The Arab Spring, therefore, provides an especially clear example of where learning processes shared across similar regimes (in this case, monarchies) inoculated them from popular challenge, whereas regimes of other types remained vulnerable; here,
because of the long-term learning dynamic at work, regime type explains patterns of immunity and the nondiffusion of breakdown as much as it explains breakdown itself.

**Conclusion**

Contemporary scholarship on democratic diffusion emphasizes the role of geography: protesters’ emulation of physically proximate neighbors propels these countries toward democracy. We argue instead that clusters of autocratic breakdown and democratization since 1945 are largely driven by similarities in regime type. Regime type structures vulnerability to popular protest, and regime similarity affects the probability that tactics that work against the first regime in a diffusionary wave will successfully transfer to other regimes so targeted.

A multimethod approach offers strong support for this argument. First, a historical case study of China in 1989 highlighted the overlooked importance of regime similarity in cross-border waves of authoritarian breakdown; from this intuition we generated a theory in which regime similarity makes autocratic breakdown and democratization more likely, and in which the gradual nature of authoritarian learning reinforces that association. Quantitative tests demonstrated that similarity in regime type is a statistically and substantively significant, positive predictor of the diffusion of both authoritarian breakdown and democratic transition. Moreover, including regime type significantly reduces the effect of geographic proximity, although regimes may be influenced more by breakdowns or democratizations in similar regimes that are geographically proximate than they are by transitions in similar regimes that occur further away. Two out-of-sample cases—Europe’s 1848 revolutions and the Arab Spring—provided qualitative corroboration of our quantitative results.

Our findings suggest several productive avenues for future research. First, our theoretical logic suggests that regime similarity may not be the only pathway along which contention and breakdown could diffuse. Linguistic groups and religious networks also commonly share analogical frameworks and transnational contacts and are two additional international communities worthy of future theoretical inquiry and empirical analysis. Second, and similarly, regime vulnerability may not depend so much on broad regime type categories (like those coded in GWF) as on more specific characteristics. Exactly what factors make certain regime types vulnerable to popular protest at a given point in time, then, is a question worthy of additional exploration.

Finally, we find evidence of authoritarian learning and counterdiffusion strategies, but also show that these dynamics only facilitate regime survival under certain conditions, particularly related to the timing of learning.
Learning is only useful if a regime survives an initial outbreak of protest long enough to learn from comparisons and apply them, a process that takes time. Future work could explore exactly how and when authoritarian learning facilitates authoritarian survival and when it does not, building on work by Dimitrov (2013), Saxonberg (2013), and others on outlier cases that survived past diffusionary waves, and on frameworks such as those outlined in Grzymala-Busse (2010) to more precisely theorize the temporal questions at stake. These lines of inquiry could provide additional theoretical and empirical leverage on questions of authoritarian survival and durability, which remain of scholarly and real-world relevance today, and will likely continue to be relevant for the foreseeable future.

Authors’ Note
Authors are listed alphabetically.

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Notes
1. “[S]pecific mechanisms that lead to change are not directly observable” (Gleditsch & Ward, 2006, p. 921); “[S]tudies . . . must more carefully test the foundations of their approximate measurement strategies” (Teorell, 2010, p. 155).
2. For helpful reviews, see Houle, Kayser, and Xiang (2016) and Leeson and Dean (2009).
3. Our findings are partly consistent with Houle, Kayser, and Xiang (2016), who find that authoritarian breakdown does not diffuse geographically. We concur, but find that authoritarian breakdown does diffuse across similar regimes.

4. We acknowledge at the outset that there are aspects of the case that do not fit the fully developed and empirically tested theory that appears below. As Gerring (2011) notes, this is relatively common when cases are used for theory-generation rather than theory-testing: it is “the very fuzziness of case studies that grants them an advantage in exploratory research.” Further discussion appears in Supplemental Appendix A.

5. More extensive discussion of the USSR appears in Supplemental Appendix A.

6. We provide a more detailed explication of this literature, with references, in Supplemental Appendix A.

7. To our knowledge, none of these sources have previously appeared in Western scholarship; more detail on these sources and the comparison process appears in Supplemental Appendix A.

8. The closest measurement was a Cold War dummy (Brinks & Coppedge, 2006).

9. Despite frequent and plausible assumptions that protests spread more easily to geographically proximate countries, there is empirical debate over this claim (Brancati & Lucardi, 2018; Joseph & Ohl, 2018).

10. For a partially dissenting view emphasizing intracrisis elite learning, see Beissinger (2007).

11. The Arab Spring, not included in GWF, appears below as an out-of-sample qualitative test.

12. Neumayer and Plümper (2010, 2016) explain that row-standardizing the weights matrix imposes the assumption that units linked to the same “senders” but with very different strength of connections end up receiving the same “spatial stimulus.” Thus, row-standardizing requires very clear theoretical justification which is often not warranted, including in this case.

13. Our central finding on the importance of regime similarity is robust to relaxing this assumption; we show that findings related to regime-based diffusion hold when modeling geographic-based diffusion as a simultaneous process. For details, see Table 11 in Supplemental Appendix B.

14. Similar regime autocratic breakdown (lag) and Geographic neighbor autocratic breakdown (lag) are positively correlated (.17), but at a relatively low degree of correlation, suggesting that the two variables are “picking up” different processes.

15. Readers who favor row-standardizing may note that under this operationalization, countries with more neighbors are subject to greater influences. We find this theoretically justified: if geography is a causal mechanism for breakdown, then a country with more neighbors could experience more pressure than one with fewer neighbors. For example, we might reasonably expect Japan to be subject to greater pressure than Australia: both are islands, but Japan has more neighbors (potentially Russia, China, North Korea, and South Korea) who could cumulatively influence Japan in a way that Australia’s sole neighbor (New Zealand) might not.
16. Interstate war data from Version 4.0 of the Correlates of War (COW) Project ends in 2007. Data from the Uppsala Conflict Data Program indicate that after 2007 there is only one observation in COW data not coded as an interstate war that should be: Eritrea in 2008. We correct this manually. (Djibouti, which was at war with Eritrea in 2008, is not in GWF.)

17. One can begin testing spatial theories by checking the restrictions of various spatial processes, specifically whether the outcome of interest is affected by spatial clustering in the dependent variable or error term (Vega & Elhorst, 2015, p. 343). Lagrange multiplier and Moran’s I tests ascertain whether there is statistically significant evidence of either process. However, neither test shows whether variation of explanatory variables in other units influences the outcome in the focal observation, which is what we are interested in. Because our theory suggests that “exogenous interaction effects among the explanatory variables” (Vega & Elhorst, 2015, p. 343) influence autocratic breakdown, we proceed directly to estimating Equation 1.

18. We believe that our nonfinding on geography in Model 1, as compared with the cumulative findings of Table 1, is explained by two things: the different dependent variable (autocratic breakdown as opposed to democratization); and the use of the SLX model, not used in previous scholarship. As we show below, our results more closely replicate findings of existing literature when we use Democratization as the dependent variable of interest.

19. See Fortunato, Swift, and Williams (2018, p. 478) for further discussion on interpreting SLX models.

20. The positive but statistically insignificant coefficient of the interaction effect is robust to calculating the interaction effect based on different levels of geographic proximity rather than just contiguity; see Table 12 in Supplemental Appendix B.

21. Note that Model 4 essentially replicates the conventional interpretation, summarized in Table 1, of geography’s importance for democratic diffusion.

22. The positive but statistically significant coefficient of the interaction effect is robust to calculating the interaction effect based on different levels of geographic proximity rather than just contiguity; see Table 12 in Supplemental Appendix B.

23. Here we note that we are changing somewhat our definitions of regime type. While there is clear agreement on which regimes are considered monarchies, GWF code the remaining MENA cases with more heterogeneity than area specialists, from whom we take the “presidential republic” label. We see this as somewhat analogous to the debate over Africa in the early 1990s, where GWF code regimes with a fair amount of heterogeneity, but Africanists clearly perceived a consistent region-wide shift away from strongman-led single-party rule toward genuine multiparty-ism (Anglin, 1990; Decalo, 1992). This is an example of where the GWF coding does not perfectly measure the regime features that may matter most, an issue that we revisit in the Conclusion.

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