Accounting for Numbers: Group Characteristics and the Choice of Violent and Nonviolent Tactics

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Abstract

Movement attributes shape the relative effectiveness of violent and nonviolent tactics. We show how nonviolent tactics can be relatively more effective when a movement can mobilize more active participants than with violence. A nonviolent mobilization advantage requires a large potential audience; movements with limited mobilization potential can have feasible prospects for violent dissent and a nonviolent mobilization disadvantage. We examine the implications of the model against empirical data for different types of dissident tactics and on resort to nonviolent and nonviolent dissent. We demonstrate very different actor profiles in nonviolent dissent and violent conflict, and the two types of dissent are more likely under distinct settings. Although tactics reflect choices, movement attributes and constraints will tend to give a comparative advantage to one over the other. Movement characteristics thus fundamentally guide choices in dissent, and this has important implications for assessing the impact of different types of dissent and likely outcomes.

Keywords: conflict, nonviolence, violence, mobilization; JEL D72, D74, D79

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Introduction

The Arab Spring of 2011 illustrates how dissident mobilizations employ non-violent and violent tactics. Whereas a mainly nonviolent movement brought down Ben Ali in Tunisia, in Libya Gaddafi was toppled through violence. Syria has descended into a major civil war where the government has gradually won the upper hand. Several scholars argue that nonviolent movements offer important strategic advantages over violent movements, increasing the likelihood of success.[1] Chenoweth and Stephan find that nonviolent campaigns succeed about twice as often as violent campaigns. They attribute this to nonviolent campaigns possessing a mobilization advantage over violent campaigns. However, it does not follow that such a mobilization advantage is universal. If factors shaping the ability to mobilize also influence the prospects for success, we must look beyond observed tactics and outcomes and consider how the ability to mobilize guides the choice of strategy. We argue that different movements are likely to have a comparative advantage in one tactic over another, and the expected ex ante prospects for success will steer the choice of strategy.

We develop a model of strategic choice for dissident tactics, emphasizing the potential for mobilization. Every movement has a potential audience, and its size caps the maximum mobilization potential. Movements that focus on the interest of a small population (e.g., secession for a minority) will have a smaller potential base than movements with a wide audience (i.e., removing a near universally unpopular government). We show that under very general conditions, dissident movements with higher mobilization potential (i.e., larger audiences and resources for mobilization) are likely to have an advantage in nonviolent tactics over violent tactics, since they can mobilize more active participants under nonviolent strategies. By contrast, movements with a limited audience are

[1] Chenoweth and Stephan (2011); Rivera and Gleditsch (2013).

unlikely to have a sufficient nonviolent mobilization advantage, and may see violence as the best option. The model underscores how large-scale nonviolence can be more successful than violent dissent, but also how only certain movements can expect to do well using a nonviolent strategy. Movements with limited mobilization potential are unlikely to improve their position by switching from violent to nonviolent tactics. The model helps to illustrate scope conditions for when movements are likely to choose a nonviolent or violent strategy based on expected success. Only by taking this selection process seriously can we fully understand how tactics may influence outcomes. Indeed, violence is a likely adaptation to a low mobilization potential, and more likely when prospects for concessions are limited.

We compare the implications of the model against data on nonviolent and violent mobilization. Active participation is much higher in nonviolent campaigns than violent rebellion, and nonviolent movements also have a larger target audience and plausible resources for mobilization. Nonviolent dissent is also more likely in urbanized non-democracies, where it is easier to mobilize large numbers of disaffected individuals, while violence is more likely in non-democracies with larger rural populations. Ethnic movements become relatively more likely to use nonviolence the larger the ethnic group.

Nonviolent and violent dissident tactics

Many empirical studies equate conflict with the use of violence, but definitions of conflict tend to emphasize the incompatibilities between actors.[2] An incompatibility can motivate specific actions such as resort to violence, but violence is just one response, and actors can also challenge a state

[2] See Boulding (1963, 5); Most and Starr (1989).

using many forms of nonviolent direct action.[3] Violent and nonviolent dissent have often been studied in isolation of one another.[4] Studies of violent conflict often disregard all variation outside violence, which can include both active nonviolent dissent as well as an absence of incompatibilities. Studies of nonviolence often focus only on active cases, without accounting for initial onset or comparisons with potential use of violence.[5] Likewise, many studies compare outcomes across active violent and nonviolent campaigns, without attention to the initial tactic choice.[6]

Some research privileges agency, and argues that any group can choose nonviolent tactics.[7]

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[3] See Bond (1994); Sharp (1973). We focus on nonviolent direct action that is convention-breaking—as opposed to routine politics within an established legal framework — and with maximalist claims against the government. Research on armed civil conflict normally focuses on organized violence with a maximalist incompatibility (either government or territory), excluding other forms of violence such as interpersonal violence, crime, or riots without organization, see Gleditsch et al., (2002); Kreutz (2015). Many "not-violent" activities fall outside direct action, as they are conducted within routine politics, or do not seek to topple the government.

[4] Schock (2013).

[5] E.g., Burrowes (1996); Sharp (1973); Wehr, Burgess and Burgess, (1994).

[6] E.g., Chenoweth and Stephan (2011); Chenoweth and Cunningham (2013). Chenoweth and Lewis (2013) provide an illustrative effort, emphasizing how common predictors of civil war do not predict to nonviolent campaign onset. Chenoweth and Ulfelder (2017) focus on out-of-sample prediction of nonviolence, and less about when violence and nonviolence may be more likely. Cunningham (2013) studies tactics among ethnic separatist groups, and does not consider non-sectarian direct action.

[7] Schock (2005).

Others emphasize strict sequencing in tactics, and see nonviolence as a precursor to violence, either as a means to mobilize for violence or as activist become disillusioned with ineffective nonviolent dissent.[8] Movements may substitute violent for nonviolent tactics whenever one tactic proves to be unsuccessful,[9] but substitution is a second-order issue compared to accounting for initial tactic choice. Existing data suggest that initial strategic choice tends to be stable, and that substitution is the exception rather than the rule. In the Nonviolent and Violent Campaigns and Outcomes Dataset (NAVCO), fewer than 10% of the campaigns in independent states change strategy.[10]

What may account for initial strategy choice? We answer this question using a simple model of nonviolent and violent coercion technologies, where a movement's potential resources for mobilization and constraints can provide a comparative advantage to one tactic over the other. Nonviolence is relatively more effective when a movement can mobilize a sufficiently larger number than they can realistically enlist in armed struggle. In contrast, violent challenges remain feasible even when movements have limited mobilization potential and ability to coerce governments through nonviolence. In short, nonviolence is effective precisely when actors can mobilize many more people. This contradicts the belief that violent challenges are more threatening to the incumbent regime and that nonviolent tactics is mainly a weapon of weak actors, unable to mount a violent rebellion.[11]

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[8] Haines (1988); Regan and Norton (2005); Tarrow (1994).

[9] Lichbach (1987); Sandler, Tschirhart and Cauley (1983).

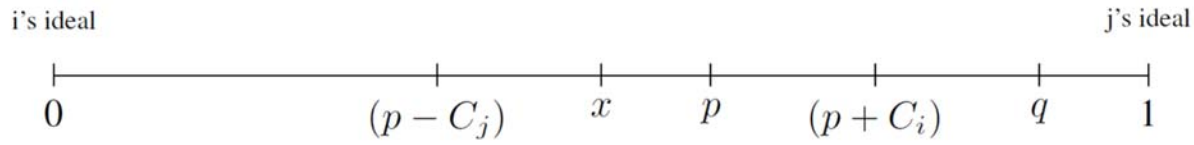
[10] We list all campaigns with apparent shifts in the Appendix. Many reflect the emergence of new primary organizations, and there are even fewer examples where a specific organization changes tactics. García-Ponce and Wantchékon (2020) also note a strong separation between violent and non-violent African independence movements.

[11] E.g., Geddes, Wright and Frantz (2018, 7): ". . . popular uprising is a tactic chosen by groups that

Factors such as motives, audiences, and resources will determine the potential nonviolent mobilization advantage and the relative effectiveness of violent and nonviolent tactics. Actors choose the tactics they believe are most likely to be effective based on the given constraints. As key circumstances rarely change after the initial choice, tactics in conflict tend to be stable absent external shocks, as actors are unlikely to be able improve their situation by unilaterally changing tactics.

We use a bargaining framework to illustrate potential differences in tactic effectiveness. Figure 1[12] represents conflict between a dissident group *i* and the government *j* over a continuous incompatibility [0, 1], e.g., relative political influence. The dissident group *i* prefers a division *x* closer to 0, while the government *j* prefers an outcome closer to 1. The relative power of the actors *p* is scaled so that higher values indicate a stronger government relative to the dissident group. *p* can be interpreted as contest success function or the fraction won in a confrontation.[13] When the status quo *q* is far from the relative power *p*, as in Figure 1, dissidents may try to challenge the state.

Figure 1: Bargaining and conflict



Standard applications of bargaining models treat "war" as a costly non-agreement option, but a contest could rely on a range of tactics. In this framework, any difference between nonviolent or violent dissent must be reflected in either the relative power *p* or the costs of confrontation *C*. We

lack the organization and resources to maintain insurgency . . . ".

[12] Adapted from Fearon (1995).

[13] Buhaug, Gates and Lujala, 2009; Hirshleifer, 1988.

delineate different production functions for relative power p_n in a direct confrontation using nonviolent tactics and p_v using violent tactics, with individual participation or mobilization m as input. In the next section we detail how the relative effectiveness of violent and nonviolent tactics p_v and p_n will vary if tactics have different maximum achievable mobilization m^v_{max} and m^n_{max}.

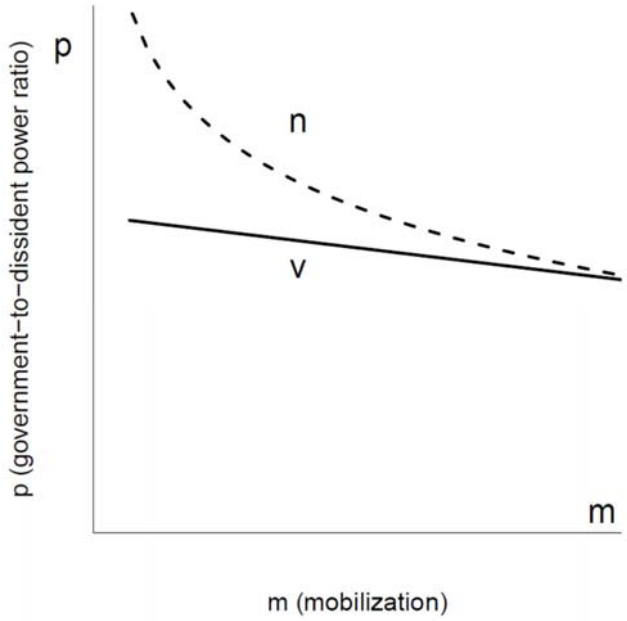
In essence, nonviolent conflict requires high active participation to be effective, whereas violent conflict can be feasible and have some impact despite limited participation. But even if we make a conservative (and questionable) assumption that violent tactics are always more effective than nonviolence at any fixed number of active participants, nonviolent tactics can still be relatively more effective if a movement has a sufficiently large mobilization advantage using nonviolent over violent methods. However, since the minimum participation threshold for imposing substantial costs on the government is likely to be much lower for violent than nonviolent tactics, violent tactics will be relatively more attractive for groups with a small audience.[14]

[14] Others propose alternative formal frameworks of tactic choice. DeNardo (1985) treats mass mobilization as a function of distance to individual ideal points, where people participate when movements choose a platform closer than government policy. More complex extensions introduce costs of participation (particularly with respect to mobilization under repression), and suggest that movements with low support may choose violence to increase pressure. However, there is no explicit comparison of violent and nonviolent tactics, group characteristics, or systematic empirical evaluation. Bhavnani and Jha (2014) propose a model where a government faces higher costs in repressing a nonviolent than a violent movement, due to sanctions by international audiences, but do not explicitly discuss if mobilization may vary by tactics.

Power by tactics and maximum mobilization

Figure 2 provides a stylized representation of how relative power p_v (solid black line) and p_n (dashed grey line) changes by mobilization m. Recall that p is scaled so that values closer to 0 indicate stronger dissidents, since dissidents maximize probability of success in $1 - p$. Figure 2 is drawn so that violent tactics are always relatively more effective than nonviolent tactics at any specific level of mobilization m. The gap is larger when mobilization is low, but nonviolent tactics become gradually more effective with higher mobilization. A tactic is only feasible if a group can mount sufficient participants to achieve some non-negligible impact. In Figure 2, a violent confrontation has a non-trivial impact p_v even with low participation m, whereas p_n remains close to 1 (i.e., complete government predominance) when m is low.

Figure 2: Relative power *p* by mobilization *m* and tactic



Note: *p* indicates the relative power of government-to-dissidents, and relative dissident power $1 - p$ is decreasing in *p*.

Figure 2 reflects the uncontroversial claims that nonviolent tactics with low participation will have limited coercive power,[15] while even relatively small violent movements can be costly for governments and difficult to defeat conclusively.[16] Dissidents can overcome a small size disadvantage through covert action (making it difficult to target participants) or choosing "soft" targets (for example civilians rather than well-protected official targets), and aspire to grow through

[15] Chenoweth and Stephan (2011); DeNardo (1985); Kuran (1989).

[16] Arreguin-Toft (2001); Butler and Gates (2009). For example, the terrorist campaign of the Greek Revolutionary Organization 17 November – with only 20 active participants (Corsun, 1992) – is estimated to have decreased foreign direct investment and tourism revenue by about 12% (Enders and Sandler, 1996).

the attention generated by attacks.[17] Nonviolent direct action from below can primarily be effective when it is public, and active participants expose themselves to potential retaliation. However, the risk to individual participants decreases and effectiveness increases when mobilization *m* is substantial.[18] Several successful nonviolent campaigns have mobilized more than 100,000 participants.[19]

We now proceed to how maximum achievable mobilization *m* can differ by tactic. Chenoweth and Stephan suggest that nonviolent movements have a *general* mobilization advantage since they can enlist more participants than violent campaigns.[20] Violent conflict has high initial recruitment costs, as preparing individuals for effective combat requires substantial training and equipment. This limits the numbers that can be recruited at the outset, and it will take time to convert potential recruits to skilled soldiers. For example, the 1944 Warsaw uprising in Poland had more active insurgents (ca 500,000) than the relatively small local German forces, but was unable to convert troop superiority into effective military power, due to a lack of arms and training. Moreover, the individual opportunity costs for participating in violence are often high, since active participation is difficult to combine with civilian life and employment, further suppressing voluntary recruitment. By comparison, nonviolent action has lower barriers to participation, with few if any requirements for training, and campaigns can in principle quickly mobilize participants. Likewise, the opportunity costs tend to be lower than for armed conflict, and participants can often switch between activism and civilian lives.

[17] Bapat (2005); Beardsley, Gleditsch and Lo (2015).

[18] DeNardo (1985); Kuran (1989); Sharp (1973).

[19] Chenoweth and Stephan (2011).

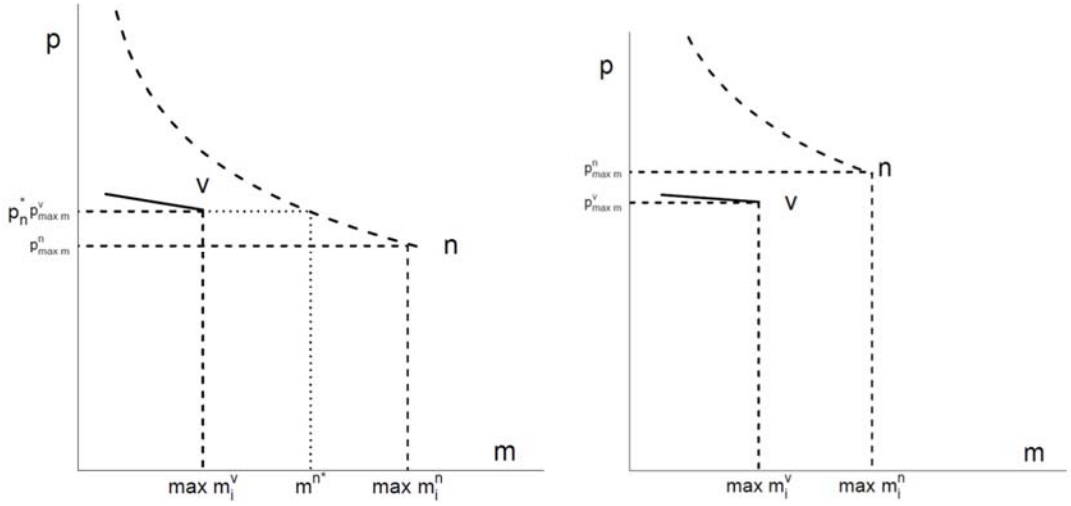
[20] Chenoweth and Stephan (2011).

In sum, the maximum achievable *m* can be much higher for nonviolent than violent tactics.[21]

We argue that a mobilization advantage sufficient to improve the relative power p ultimately depends on the maximum feasible mobilization, contra Chenoweth and Stephan. Movements differ in audience or potential, and can only be more effective using nonviolence *n* when they can mobilize sufficiently more active participants using nonviolence compared to violent tactics. Figure 3 compares two movements with a large audience (left) and a limited audience (right). In the left panel (a) maximum mobilization with nonviolence m^n_{max} is sufficiently large relative to maximum mobilization with violence m^v_{max} to make $p^v_{\max m} < p^n_{\max m}$ so that the group is more effective using nonviolent tactics. However, if there is a sufficiently low ceiling on m^n_{max}, then a larger maximum mobilization than m^v_{max} does not by itself yield a non-violent mobilization advantage. In the right panel (b), nonviolent tactics have a comparative disadvantage over violent tactics, even though maximum mobilization is much larger. We provide a simple general proof of the proposition that mobilization beyond a critical value will give a higher probability of success for a nonviolent strategy than for a violent strategy in the Appendix. This does not assume a specific functional form, and only requires that the probability of success rises with greater dissident mobilization and declining marginal gains, and that maximum mobilization for the movement using nonviolence is greater than for violence.

[21] Participation in nonviolence can be fickle, especially since organizations can rarely reward or control individual participants. Violent groups can often reward individual participants and punish defection, see Bhavnani and Jha (2014); Gates (2002). This helps to account for why violent conflicts tend to last longer than nonviolent campaigns.

Figure 3: Relative power *p* by maximum mobilization m_{max} for tactic *n, v*



(a) (b)

Group characteristics and tactical choice

We can now relate dissident movement characteristics to the choice of tactics. Our model shows that a nonviolent mobilization advantage requires a large potential audience, and with a low ceiling on m^n_{max} nonviolent tactics will have a comparative disadvantage, making dissidents more likely to choose violent tactics. These implications for likely tactic choices can be evaluated against observed conflict profiles and the attributes of a potential movement.

The underlying incompatibility and specific claims of a movement will define its potential audience.[22] Mobilization can also differ if individuals have preferences over tactics, for example if some potential participants do not support violent tactics or sensitive to the costs of violence. If so, achievable violent mobilization m^v_{max} will be capped at a lower level than mobilization using nonviolent tactics m^n_{max}. Finally, resources shape the share of the audience movements can

[22] Buhaug (2006); Sobek and Payne (2010).

mobilize.[23] A movement with greater resources for eliciting individual participation is more likely to have a mobilization advantage in nonviolence. For example, it is easier to organize nonviolent dissent in a large urban population with greater individual skills and endowments, and violent conflict is more common in the periphery with low human capital.[24]

Actual mobilization depends on many factors beyond the potential, including ideology, leadership, and the state's ability to preempt or deter. Still, we can derive many propositions on differences in conflict movements from our simplified model. First, since the potential audience is larger, nonviolent action should be more likely for challenges over the government than secession, where the appeal is bounded to a distinct ethnic group.[25] Efforts to change the government must appeal to a large audience and attempt to convert government supporters, making violence more likely to prove counterproductive and alienate potential supporters.

Second, movements that have more resources are more likely to have nonviolent mobilization advantage. Individual and community resources facilitate particular types of collective action. We expect movements to have a nonviolent mobilization advantage in urban societies with greater individual skills and collective resources facilitating nonviolent mobilization and where states are more vulnerable to disruptive activities. Small and resource poor movements have limited ability to impose significant costs through nonviolent protest and are more likely to perceive better prospects through violent rebellion.

Third, movements that can mobilize throughout a country have better prospects for nonviolent

[23] McCarthy and Zald (1977).

[24] García-Ponce and Wantchékon (2020); Thyne (2006).

[25] Cunningham (2013, 2014); Cunningham, Dahl and Frugé (2017).

tactics, whereas movements confined to the periphery are more likely to choose violent tactics. Conflict location reflect in part objectives; separatists groups tend to focus on a claimed homeland and normally have limited interest and capacity to act elsewhere.[26] Nonviolent challenges to the government are unlikely to have much impact unless they engage the capital and major cities. Anti-government mobilization is effective for urban movements that can mobilize in the capital and large cities. Moreover, we should see a higher share of nonviolent conflicts extending over large areas and including capital cities when resources and mobilization spread out.

In active conflicts — as assumed by a binary choice bargaining framework — we can directly assess differences in actor profiles and tactics. For the initial decision to actively use tactics vs inaction we must also account for incompatibilities and consider the full population of potential action. To look at potential motivation, we assume that all dissent is motivated by grievances arising from political marginalization.[27] The lack of political access in a non-democracy can motivate direct action against dictatorial governments.[28] Democracy does not by itself mean that people will not have grievances, but we are less likely to see direct action, or large discrepancies between the status quo q and the relative power of actors p when participation is open and voting actually matters.

Empirical evaluation

We now consider model implications against empirical data on movement characteristics and distinct types of mobilization. We first look at the characteristics of violent and nonviolent movements.

[26] Beardsley, Gleditsch and Lo (2015).

[27] E.g., Cederman, Gleditsch and Buhaug (2013).

[28] Muller and Weede (1990); Rivera and Gleditsch (2013).

Second, we look at patterns of onset for both types of mobilization for country profiles, and how this varies by plausible motives, audiences and resources. Third, we look at data on self-determination groups where we can explicit consider the potential audience size. The evidence is consistent with our claim that nonviolent mobilization is more likely when groups have feasible prospects for large-scale mobilization. Thus, accounting for how plausible numbers shape initial tactic choice is essential to understand how strategies go together with outcomes in conflict.

Movement characteristics

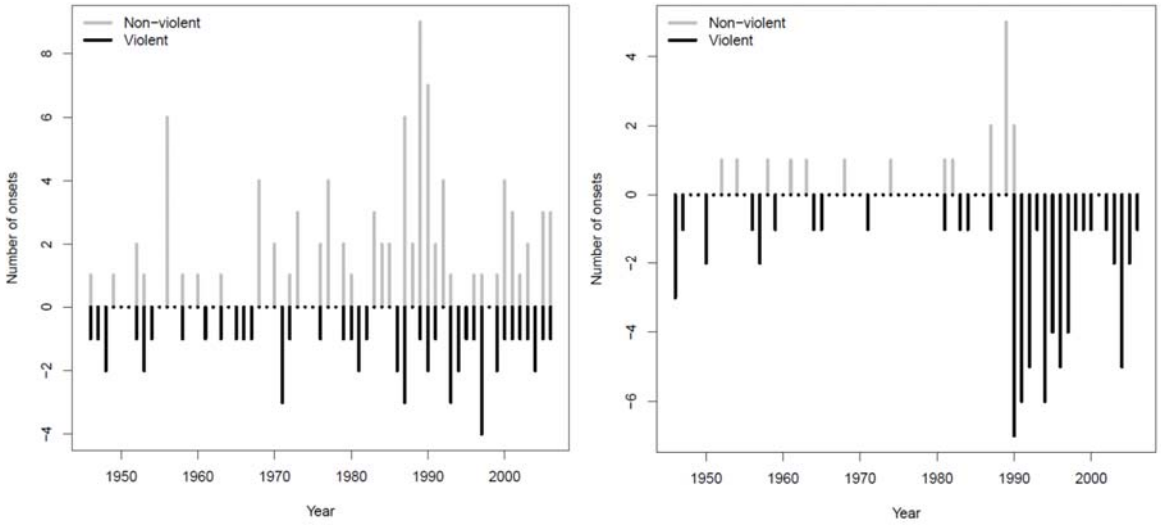
We compare NAVCO 2.0 nonviolent campaigns with violent armed conflicts in the Uppsala Armed Conflict Data (ACD).[29] We first compare the frequency of each type of mass mobilization across territorial and governmental incompatibilities.[30] Figure 4 shows the number of violent (black

[29] NAVCO focuses on nonviolent campaigns with maximalist claims and more than 1,000 participants (Chenoweth and Lewis, 2013), while UCDP armed conflicts must have more than 25 battle-deaths per year (Gleditsch et al., 2002). NAVCO includes data on violent wars with more than 1,000 battle deaths, but the apparent parallel between battledeaths and participants is misleading, since violent campaigns have more participants than battledeaths. NAVCO also reports campaigns taking place in countries before they become independent, for example former Soviet republics. We recode these as events in the independent state in existence when they take place. We remove the military coup d'etats included the ACD (i.e., coups that generate more than 25 battledeaths), as these arise from intra-elite government conflict rather than dissident mobilization (Powell and Thyne, 2011).

[30] ACD distinguishes between territory and government, while NAVCO classify campaign aims as i) regime change, ii) significant institutional reform, iii) policy change, iv) territorial secession, v)

downward bars) and nonviolent (grey upwards bars) mobilizations for each incompatibility. We see notably more nonviolent than violent mobilization onsets for governmental incompatibilities, consistent with our claim that dissident groups with more encompassing claims and larger max mobilization *m* are likely to have a comparative advantage in nonviolent tactics. By contrast, territorial incompatibilities are more likely to see violent mobilization, in line with our claim that smaller secessionist groups are likely to have a comparative disadvantage in nonviolent direct action relative to violence. Indeed, we have only 13 NAVCO territorial nonviolent campaigns in sovereign states.[31]

Figure 4: Conflict onsets by tactic and incompatibility



greater autonomy, or vi) anti-occupation. We consider the first three governmental incompatibilities and the latter three territorial incompatibilities.

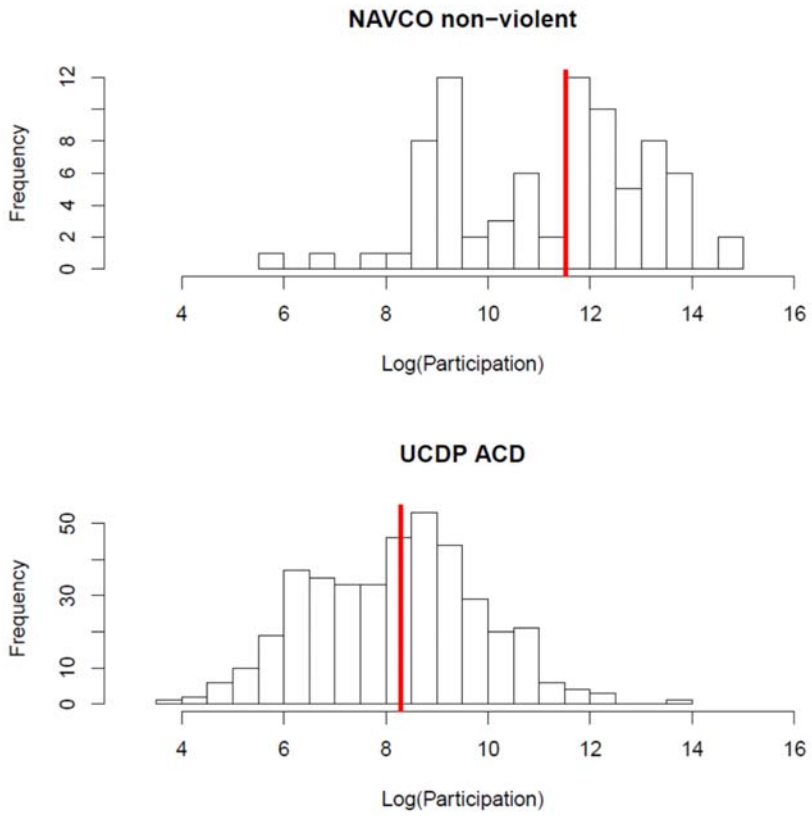
[31] Five cases take place in the former Soviet Union or Yugoslavia at the end of the Cold War. NAVCO codes Czechoslovakia 1968 and Hungary 1956 as responses to foreign occupation by the USSR, but both could arguably be considered anti-government. We provide a full list in the Appendix.

Figure 5 shows how active participation in nonviolent mobilization by far exceeds the number of participants in violent movements. The median participation rate for nonviolent campaigns is 100,000, and 16 campaigns have more than one million participants. By contrast, the median rebel troop estimate in violent armed conflict is merely 4,000.[32] This is consistent with movements being more likely to choose nonviolent tactics if they have large potential audiences and plausible expectations for large-scale mobilization.[33]

[32] Civil wars that reach large participation often do so long after the initial onset, and under exceptional circumstances. For example, rebel troops peaked at 120,000 in Afghanistan, but this reflected massive external aid to build a mass army, and the rebels started with only about 4-5,000 troops. See also Cunningham, Gleditsch and Salehyan (2009).

[33] Ethnic groups are rarely involved in mass nonviolent direct action, but those who do are on average much larger than the average groups in civil war—14.6 million vs 3.1 million, see Wucherpfennig et al. (2012). Cunningham (2013) finds that larger ethnic groups seem relatively *less likely* to use nonviolent direct action over conventional politics, but only compares against active movements, and also reports that large groups are more likely to be politically included.

Figure 5: Logged number of active participants by type of manifest conflict, median superimposed

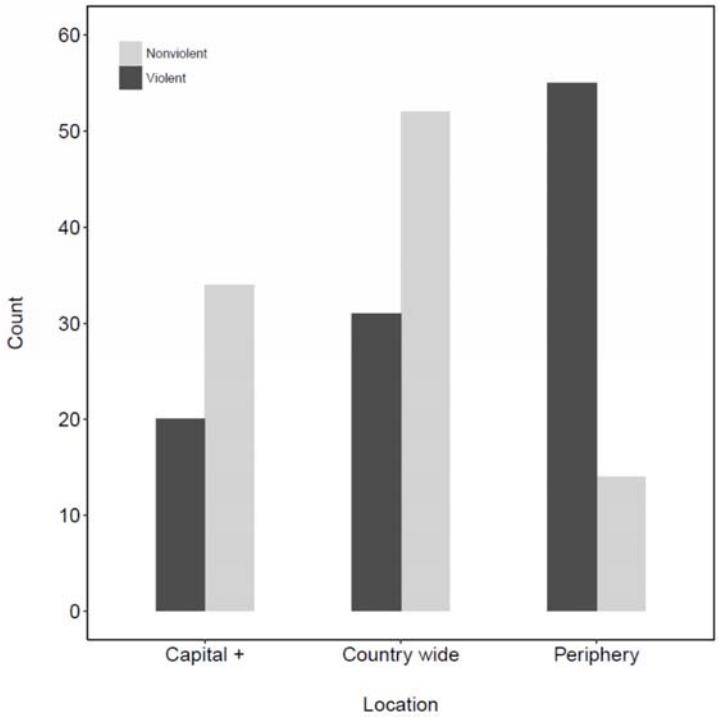


Finally, nonviolent and violent mobilization tend to take place in different locations. We classify whether NAVCO campaigns are a) limited or concentrated mainly in the capital, b) widespread throughout the entire country, or c) limited to the periphery. Figure 6 compares NAVCO locations with comparable information for violent campaigns, based on the Conflict Sites data.[34] The mode for violent mobilization is fighting confined to the periphery. By contrast, nonviolent mobilization most often takes place in the capital or widespread throughout the country, and is rarely confined to the periphery. This is consistent with our claim that movements with an urban base are

[34] Hallberg (2012).

more likely to choose nonviolent tactics while groups with lower resources and limited audiences are more likely to choose violent tactics and fight in the periphery.

Figure 6: Location of manifest conflict by tactic



We now assess resources for mobilization and the likely nonviolent mobilization advantage, using urban population size as proxy, based on data from UN population statistics. We find that nonviolent mobilization takes place in countries with larger urban populations, while civil wars occur in less urbanized countries. The median urban population in a country experiencing civil war is 5.23 million, while the median urban population in cases undergoing nonviolent campaigns is 16.52 million, over three times as large.

Skeptics may wonder if these conclusions could be skewed by only looking at major conflicts and nonviolent mobilization with more than 1,000 participants. For this to be the case, the truncation

or exclusion of lower scale nonviolent events would have to be more severe than for violent events. But this does not appear to borne out by the existing data, as we have many more low-level violent events than nonviolent events below the participation thresholds. Using the Global Terrorism Database (1970-2016)[35] for more encompassing data on intentions to use violence and the Social, Political, Economic Event Database (SPEED, 1945-2015)[36] for civil unrest without a mobilization threshold, we find 2.3 more country-years with domestic violent attacks outside than inside civil wars, but only 2.1 times more country-years with civil unrest outside than inside NAVCO campaigns. This is not consistent with the conjecture that the apparent differences between nonviolent and violent mobilization events arise as an artifact due to selecting "larger" nonviolent events.

Movement characteristics and initial mobilization

We have seen above that nonviolent movements tend to have larger universal audiences, mobilize in capital and cities, and need more resources to facilitate mobilization. But if the likelihood of nonviolent mobilization is sensitive to expected dissident mobilization, then we should also see more observed inaction—or violent tactics—when the mobilization potential is low.

Mobilization across country-level profiles

Although it is challenging to identify potential movements ex ante,[37] we can look at the likelihood of nonviolent mobilization across country-year profiles with measures reflecting potential motivation

[35] LaFree and Dugan (2007).

[36] Nardulli, Althaus and Hayes (2015).

[37] Cunningham et al. (2017); White et al. (2015).

and resources for dissent.[38] We assume that motivation for nonviolent direct action increases with the absence of democratic institutions. We use the full Polity institutionalized democracy scale and a dichotomous measure of non-democracy, flagging cases below 6.[39] We proxy resources by the log of total urban population, using UN population division estimates.

We consider some plausible alternative measures that could reflect resources for mobilization. Previous research argues that civil war is more likely in countries with larger populations. Indeed, some argue that incentives for conflict scale with country size.[40] Chenoweth and Lewis (2013) suggest that nonviolent campaigns are more likely in countries with higher GDP per capita.[41] We control for income and total population, which may be correlated with greater urbanization and government reliance on popular compliance.[42]

We also control for other factors plausibly associated with both motivation and nonviolent dissent. We control for whether a country has one or more excluded ethnic groups in the EPR data, as ethnic exclusion increases the risk of civil war, and may be associated with political marginalization not captured by democratic institutions.[43] Violent and nonviolent direct action are not mutually exclusive, and a country could experience both in the same year. Violence may crowd

[38] This is comparable to Buhaug, Cederman and Gleditsch's (2014) analyses of civil war.

[39] Jaggers and Gurr (1995).

[40] Alesina and Spolaore, (2003); Fearon and Laitin (2003).

[41] Chenoweth and Lewis (2013).

[42] Using data from Gleditsch (2002).

[43] Buhaug, Cederman and Gleditsch, 2014.

out nonviolence, and dissipate the mobilization advantage.[44] We thus control for ongoing civil war. Finally, violent conflict has a strong tendency to recur, and we consider possible time dependence by counting time since a nonviolent campaign or independence, recorded back to 1900. Since time dependence is unlikely to be fully linear in years we take the log, adding 1 to the base.

Table 1 presents a series of logit estimates of the onset of nonviolent action campaigns for different specifications. Model 1 uses the full Polity scale. We find that nonviolent campaign onset is less likely in more democratic countries, consistent with our claims about non-democracy as motivation and the plausible mobilization advantage of non-sectarian campaigns. In Model 2 we replace the graded Polity democracy measure with a binary measure, contrasting democracies and non-democracies. Non-democracies again are more likely to see non-violent campaigns, and our other results change little. Some have suggested that democracy will have an inverted U-shaped effect on dissent, with the highest mobilization in countries with sufficient motivation and opportunities.[45] In Model 3 we add the square of the Polity measure. We find no evidence for an inverted U-shaped relationship; the flex point is at -6, far from the middle, and the small change in the log likelihood provides little evidence for a non-linear relationship between the Polity scale and nonviolent campaigns. In Model 4 we use the tri-partite regime typology suggested by Jaggers and Gurr, and find no evidence that onset is more likely in anocracies than autocracies.

The coefficient for ethnic exclusion in Model 1 is positive, indicating a higher risk of nonviolent campaigns when political systems discriminate against ethnic groups. But this reflects more non- sectarian mobilization in more exclusionary states rather than ethnic separatist

[44] See also DeNardo (1985).

[45] Muller and Weede, 1990.

mobilization, since we have very few ethnic nonviolent campaigns. Moreover, the estimated coefficient for the binary non-democracy term in Model 2 is twice as large as the dichotomous ethnic exclusion measure.

TABLE 1: Nonviolent campaign onset

	Dependent variable:			
	Nonviolent campaign onset			
	(1)	(2)	(3)	(4)
Civil war	−0.285	−0.304	−0.262	−0.266
	(0.295)	(0.293)	(0.294)	(0.294)
Exclusion	0.636**	0.600**	0.599**	0.582**
	(0.252)	(0.253)	(0.252)	(0.253)
Polity	−0.081***		−0.085***	
	(0.018)		(0.019)	
Non-democracy		1.337***		
		(0.320)		
Polity^2			−0.007*	
			(0.004)	
Autocracy				1.463***
				(0.327)
Anocracy				0.986**
				(0.395)
Ln urban population	0.667**	0.636**	0.641**	0.666**
	(0.279)	(0.283)	(0.285)	(0.283)
Ln population	−0.242	−0.207	−0.213	−0.243
	(0.285)	(0.290)	(0.291)	(0.290)
Ln GDP per capita	−0.206	−0.187	−0.143	−0.195
	(0.157)	(0.161)	(0.165)	(0.161)
Ln time at peace + 1	−0.082	−0.061	−0.060	−0.073
	(0.099)	(0.099)	(0.100)	(0.100)
Constant	−6.503***	−7.626***	−6.720***	−7.420***
	(1.648)	(1.759)	(1.688)	(1.757)
Observations	8,525	8,525	8,525	8,525
Log Likelihood	−420.725	−421.716	−418.966	−420.326
Akaike Inf. Crit.	857.450	859.432	855.932	858.652
Note:				*p<0.1; **p<0.05; ***p<0.01

Turning to mobilization resources, we find these results to be in line with our expectations that nonviolent mobilization is more likely when there is a larger urban population and higher

capacity for collective action in cities.

The coefficient for the log of urban population is positive and statistically significant. This contrasts with research on civil war, where larger total or peripheral population is associated with higher conflict risks. We find little evidence that either GDP per capita or total population display a clear relationship with the onset of nonviolent campaigns. Thus, there is no evidence that the effect of a larger urban population simply reflects larger or wealthier countries. The absence of a general impact of population size underscores our argument about relevant resources and the predominantly urban basis for nonviolent action.

Finally, the coefficient estimate for ongoing civil war is negative, indicating that nonviolent direct action campaigns become less likely if there is a violent campaign in a country, although the coefficient is small and not significant. The coefficient for time since previous nonviolent campaign is also small and not significant, indicating little evidence of time dependence.

One might argue that our propositions primarily pertain to nonviolent campaigns over the government. In Model 1 Table 2 we drop campaigns over territorial issues, but our results do not change notably. Model 2 shows that the results are similar for nonviolent campaign incidence, and thus not sensitive to the specific years assigned for onset or excluded years with ongoing campaigns.

In Model 3 we replace nonviolent campaigns with violent civil conflict onset. The results are consistent with the idea that similar motives can spur different types of direct action — as seen by the positive coefficient for exclusion and negative coefficient for Polity — there are strong differences in the factors influencing opportunities. Indeed, the coefficient for urban population on violent conflict is negative. It remains negative (although not significant) in Model 4 restricted to only ethnic civil wars, where organizations make claims on behalf of distinct ethnic groups, based on

the ACD2EPR data,[46] and Model 5 for civil wars over the government, which presumably resemble nonviolent campaigns over the government the most.

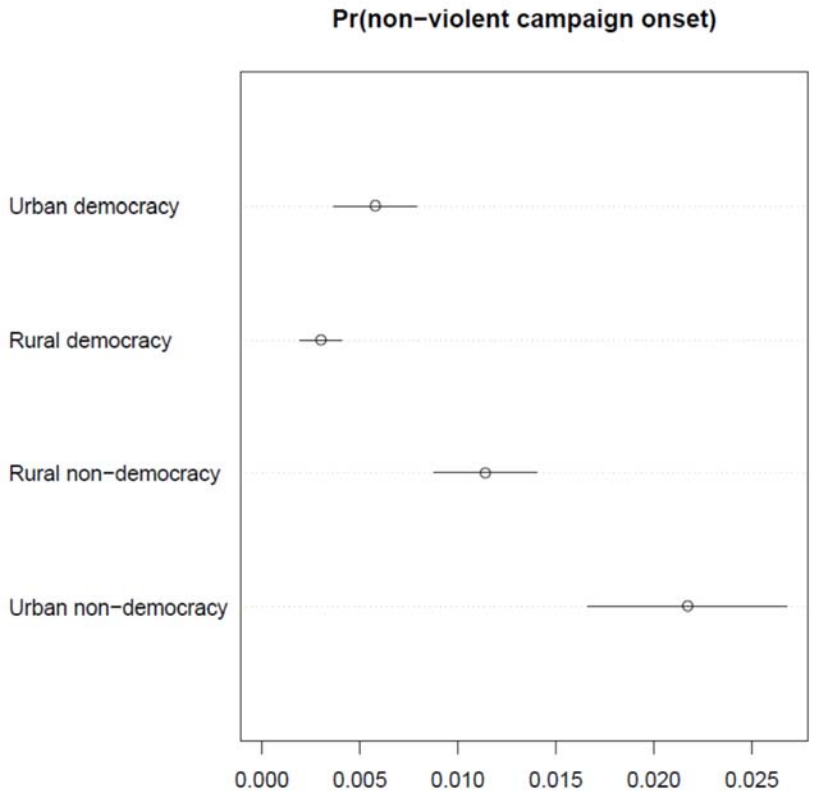
Figure 7 displays predicted probabilities of nonviolent mobilization onset with error bars for profiles where countries are democratic or non-democratic and largely urban (70%) and rural (25%), based on the first and third quartile of the sample distribution and the estimates from Model 3, Table 2, holding all other factors at the median. We see the highest likelihood of nonviolent campaign onset in urban non-democracies, where the predicted risk is twice as large as the risk in rural non-democracies. Although the risk of nonviolent campaigns is higher with a larger urban population, the likelihood of a nonviolent direct action campaign remains low in a democracy. In sum, the likelihood of nonviolent mobilization is much higher in countries with a large urban population, while the predicted likelihood of a violent civil conflict is highest for a rural non-democracy.

[46] Wucherpfennig et al. (2012).

TABLE 2: Alternative responses

	Dependent variable:				
	NVC onset (gov.)	NVC inc.	UCDP CW	Ethnic CW	Non-ethnic CW
	(1)	(2)	(3)	(4)	(5)
Civil war, gov.	−0.378				
	(0.386)				
Civil war		−0.163			
		(0.178)			
Nonviolent camp.			0.272	0.377	0.155
			(0.413)	(0.559)	(0.611)
Exclusion	0.522**	0.545***	0.685***	0.807***	0.679***
	(0.261)	(0.163)	(0.200)	(0.302)	(0.263)
Polity	−0.077***	−0.058***	−0.027*	−0.010	−0.033*
	(0.019)	(0.011)	(0.014)	(0.021)	(0.020)
Ln urban population	0.578**	1.073***	−0.175	−0.210	−0.077
	(0.284)	(0.191)	(0.154)	(0.221)	(0.210)
Ln population	−0.205	−0.698***	0.411**	0.566**	0.209
	(0.293)	(0.195)	(0.171)	(0.247)	(0.232)
Ln GDP per capita	−0.228	−0.160	−0.333***	−0.516***	−0.331**
	(0.165)	(0.103)	(0.125)	(0.189)	(0.162)
Ln time w/o NVC + 1	−0.039	−1.113***			
	(0.104)	(0.054)			
Ln time w/o UCDP CW + 1			−0.479***		
			(0.079)		
Ln time w/o ethnic CW + 1				−0.613***	
				(0.111)	
Ln time w/o non-ethnic CW + 1					−0.228**
					(0.115)
Constant	−6.087***	−2.504**	−3.125**	−3.388*	−3.085*
	(1.736)	(1.092)	(1.258)	(1.873)	(1.661)
Observations	8,584	8,700	7,495	7,428	7,436
Log Likelihood	−389.799	−766.008	−567.358	−287.088	−365.115
Akaike Inf. Crit.	795.597	1,548.015	1,150.717	590.175	746.231
Note:					*p<0.1; ** p<0.05; ***p<0.01

Figure 7: Nonviolent campaign onset by country profiles



Mobilization by type for self-determination groups

Our country level analyses do not allow us to explicitly compare aggrieved group size and tactic choice. We provide additional analyses focusing on ethnic groups, where the size of the constituency is known ex ante. Although few ethnic movements engage in mass nonviolent direct action, organizations linked to self-determination groups often engage in lower-level mobilization and other activities that are not violent.[47] The Strategies of Resistance Data Project (SRDP) record violent and nonviolent activities by self-determination organizations. We expect ethnic movements to be more

[47] Cunningham, Dahl and Frugé (2017).

likely to choose nonviolent strategies the larger the ethnic groups they claim to represent.

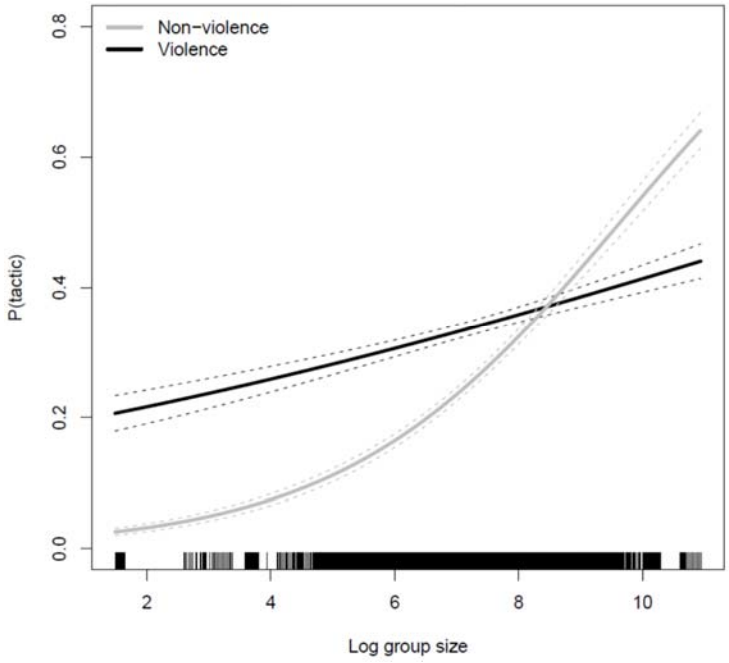
Table 3 reports logit models for use of violent and nonviolent tactics in the SRDP for EPR ethnic group size estimates.[48] The results indicate that the likelihood of any activity, both nonviolent and violent, increases with group size. However, Figure 8 shows that the likelihood of nonviolence increases much more rapidly with size than the likelihood of violence and is absolutely more likely for larger ethnic groups. These results suggest a positive relationship between Polity and nonviolence, but unlike the NAVCO data, the SRDP data are not limited to direct action and also include nonviolent routine political action.

[48] Following Cunningham, Dahl and Frugé (2017) we control for Polity, GDP per capita, and imports as a percentage of GDP.

TABLE 3: Pr(tactic) by self-determination group size

	Pr(tactic)	
	Violence >0	Nonviolence >0
	(1)	(2)
Log group size	0.117***	0.446***
	(0.027)	(0.032)
Imports as a percentage of GDP	−0.009***	−0.002
	(0.002)	(0.003)
Polity	−0.008	0.054***
	(0.007)	(0.008)
Log GDP per capita	−0.157***	0.231***
	(0.040)	(0.045)
Constant	−0.027	−6.372***
	(0.393)	(0.463)
Observations	3,171	3,171
Log Likelihood	−1,961.120	−1,586.989
Akaike Inf. Crit.	3,932.239	3,183.977
Note:	*p<0.1; **p<0.05; ***p<0.01	

Figure 8: Ethnic group size and nonviolent and violent tactics



Discussion and conclusion

Nonviolent and violent mobilization can arise from similar motives but features that affect mobilization potential are likely to give a comparative advantage to one or the other tactic. Movements that aim at overturning dictatorships, have large potential audiences, and can mobilize many in key cities are likely to have a comparative advantage in nonviolent tactics. In contrast, movements that have a limited support base and core support confined to the periphery are more likely to have a comparative advantage in violence, and unlikely to be able to mount effective nonviolent mobilization.

Our claims and findings challenge common tenets in conflict research. Many have argued that

violent rebellion will be used whenever feasible,[49] and that nonviolent tactics are employed primarily by weak groups that lack the capacity to use violence.[50] Both claims are misleading. Direct action and mobilization are unlikely absent motives, and nonviolence is a more likely tactic for stronger movements, with wider support, which can mobilize more effectively using this tactic than through violence. Violent tactics instead will often be an adaptation to limited mobilization potential and poor prospects for effective nonviolent mobilization. Our comparative focus on strategic choice and how these are rooted in actor profiles provides new insights into why different types of groups employ the tactics they do. Comparing campaign outcomes by tactics can be misleading if we do not account for expected numbers and how actor characteristics shape tactics.

Our model of the technology of conflict and likely mobilization potential helps understand the relationship between factors affecting the choice of tactics and prospects for success. A non-sectarian group challenging a dictatorship with a comparatively high resource base and a larger audience for mobilization has a comparative advantage in nonviolent tactics and can have better prospects for success. A secessionist group with peripheral rural base faces an uphill challenge and is unlikely to improve its prospects for success by shifting to nonviolence. The initial choice of violence versus nonviolence must be considered in light of group characteristics or strategic context, and movements will choose the tactic that gives them the greatest chance of affecting change. Observed nonviolent campaigns may on average see a higher success rate than violent campaigns, but only rarely can ongoing violent campaigns increase their likelihood of success by shifting unilaterally to a nonviolent strategy, and a nonviolent movement is unlikely to become "more effective" by turning to violence.

[49] E.g., Collier, Hoeffler and Rohner (2009).

[50] E.g., Geddes, Wright and Frantz (2018).

Our study suggests a number of promising avenues for further research. First, the basic modeling framework for choice of tactics in conflicts can be extended in several ways. For example, the state as an independent actor deserves closer attention. States can repress and make various efforts to deter or minimize active mobilization,[51] which in turn shapes mobilization potential. States may encourage a shift to violence if participation is successfully deterred. States can also try to discourage mobilization by accommodation or offer deals to make a sufficiently large share of the population step away from participating in active dissident.[52] Second, movements can innovate and try to improve their prospects. Successful framing, training, as well as dissemination can increase support, and generate a nonviolent mobilization advantage. The observed diffusion in nonviolent campaigns and apparent tactical learning is consistent with this.[53] Finally, event data can provide more information on the choices of actors and types of actions, beyond the campaign thresholds used here, with more refined measures of nonviolent and violent events. Looking at acts of disorganized violence such as riot and attacks on police can allow us to consider to what extent violence crowds out nonviolence or arise in response to low participation. Still, our model and analysis here demonstrate the fundamental importance of movement characteristics and ability to garner support in examining tactics and strategies in political dissent and mobilization.

[51] E.g., Danneman and Ritter (2014).

[52] E.g., Koos (2016).

[53] E.g., Gleditsch and Rivera (2017).

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Appendix

Shifts in predominant method of resistance, NAVCO 2.0

Table A1 list all campaigns with apparent shifts in independent states in the NAVCO 2.0 data. Some reflect new organizations emerging rather than an existing organization or leadership changing tactics. For example, NAVCO records a switch in Kosovo from nonviolence to violence as the primary tactic in 1998 when the Kosovo Liberation Army (KLA) launches a violent campaign. But the Democratic League of Kosovo (DLK) leading the prior nonviolent movement did not change strategy or disappear when the KLA emerged. The basis for determining what constitutes "primary" tactics here and elsewhere in these data is not fully clear. Other shifts such as South Africa appear to arise due to changes in the external context. For example, both the African National Congress and the Government explicitly acknowledge changing tactics in response to the end of the Cold War, see https://tinyurl.com/yd9p8y3s (pp.160-9) and https://tinyurl.com/ydda4xpm. The NAVCO data have no minimum threshold for violence, and in some cases record shifts to residual violence without significant deaths after the end of a nonviolent campaign, as in Guyana 1991. This makes the low share of shifts to violence even more remarkable.

Table A1: Shifts in Predominant Method of Resistance, NAVCO 2.0

Country	Campaign	Years	Shift Year	Change
Algeria	Islamic Salvation Front	1992-2006	1992	NV → V
Chile	Anti-Pinochet Movement	1983-1989	1983 1984	NV → V V → NV
Colombia	Liberals of 1949	1946-1953	1947	NV → V
El Salvador	Salvadoran Civil Conflict	1977-1991	1979	NV → V
Guatemala	Marxist rebels (URNG)	1961-1996	1962 1964 1995	V → NV NV → V V → NV
Guyana	Anti-Burnham / Hoyte	1990-1992	1991	NV → V
India (Nagaland)	Naga Rebellion	1955-1975	1957 1959	V → NV NV → V
Indonesia (East Timor)	Freitilin Timorese Resistance	1974-1978 1988-1999	1974 1988	NV → V V → NV
Indonesia (West Papua)	West Papua Anti-Occuption	1964-2006	2000	NV → V
Indonesia	Indonesian leftists / Anti Sukarno	1956-1960	1957 1958	NV → V V → NV
Israel (Palestinian Territories)	Palestinian Liberation	1973-2006	1986 1993	V → NV NV → V
Morocco (Western Sahara)	POLISARIO	1975-1991	1981 1983	V → NV NV → V
Nepal	CPN-M/UPF	1996-2006	2005	V → NV
Papua New Guinea	Bougainville Revolt	1989-1998	1997	V → NV
Philippines	Moro National Liberation Front	1970-1980	1975 1976	V → NV NV → V
Romania	Anti-Ceaucescu	1987-1989	1988	NV → V
Russia	Chechen Separatists	1994-2006	1996 1997	V → NV NV → V
South Africa	First Defiance Campaign Second Defiance Campaign	1952-1961 1984-1994	1959 1989	NV → V V → NV
Sri Lanka	LTTE	1972-2006	1975	NV → V
UK (Northern Ireland)	IRA	1968-2006	1968 1993 1995 1998	NV → V V → NV NV → V V → NV
Yugoslavia (Kosovo)	Kosovo Albanian	1989-1999	1996	NV → V

General proof for nonviolent mobilization advantage

In this section we provide a general proof for nonviolent mobilization advantage. We demonstrate that there will exist a level of mobilization where the probability of success is higher with a nonviolent strategy than a violent strategy, provided that the probability of success rises with greater numbers of people mobilized and a critical level of mobilization using nonviolence that sufficiently exceeds the maximum mobilization possible when relying on a violent strategy. To simplify the proof, we reverse the scaling in Figure 2 in terms of $\pi = 1 - p$, where higher values of π indicate a higher probability of dissident victory relative to the government.

Proof

Assume the probability that the dissidents win is a function of the tactics (n or v; nonviolent and violent) and the number of people mobilized, m. We write the probability of winning with tactic t and people m, $\pi_t(m)$. Further, we assume the number of people mobilized is also a function of the tactic and some general "size of audience" a : $m_t(a)$.

We further assume that both π_t's are increasing in m, and for a fixed m, $\pi_v(m) > \pi_n(m)$, i.e., more active participants means a higher chance of success, and for a fixed number of participants, violence is most effective. It is also reasonable to assume that both m_t's are (weakly) increasing, and that for any size of audience a, $m_n(a) > m_v(a)$: that is to say, a nonviolent movement can have more active participants than a violent movement.

A movement will choose nonviolent tactics if $\pi_n(m_n(a)) > \pi_v(m_v(a))$. Given the above assumptions, a movement will choose nonviolent or violent tactics, depending on whether the (a) "violence is more effective for fixed m" or (b) the "more m with nonviolence" effect is larger. The change in the chance of winning with tactic t as the audience increases is:

$$\frac{\partial \pi_t}{\partial a} = \frac{\partial \pi_t(m)}{\partial m} \frac{\partial m_t(a)}{\partial a}. \quad (1)$$

By the above assumptions, both terms are (weakly) positive, so the probability of winning with either tactic is (weakly) increasing in the audience.

Implicit in our argument is that a larger audience increases potential active mobilization in terms of m_n (nonviolent tactics), but to a lesser extent with respect to m_v (violent tactics). Given this, as the size of audience increases, the probability of success with nonviolent tactics, $\pi_n(m_n(a))$, increases while the probability of success with violent tactics, $\pi_v(m_v(a))$, does not increase as much, and so the relative appeal of nonviolent tactics increases. Moreover, if the rate of this increase does not approach zero, then as m rises, nonviolent tactics will eventually be superior.

More generally, if:

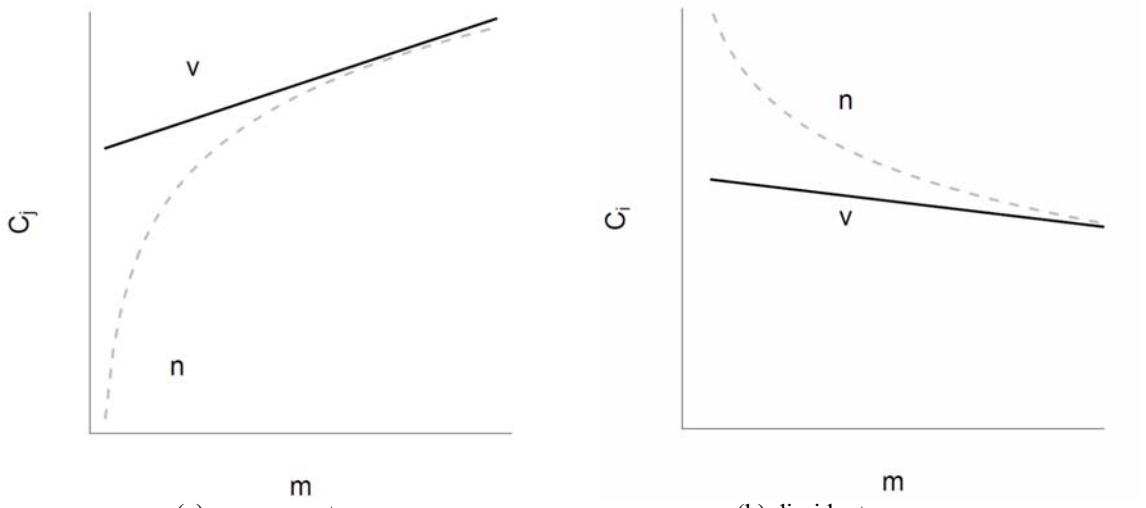
$$\frac{\partial \pi_n(m)}{\partial m} \frac{\partial m_n(a)}{\partial a} > \frac{\partial \pi_v(m)}{\partial m} \frac{\partial m_v(a)}{\partial a}. \quad (2)$$

This difference never approaches zero; thus for sufficiently large enough audiences nonviolent tactics will be better.

Mobilization advantage and costs

In this section we provide a simple illustration of how a mobilization advantage could arise from differences in costs of conflict. The left panel in Figure 9 summarizes costs to the government C_j increasing with mobilization and tactic, while the right panel reflects the costs for dissidents C_i decreasing with m. For example, a small violent insurgency with low m may impose more substantial costs C_j on the government than a non-cooperation campaign with low participation, but the relative cost advantage of violent campaigns diminishes as m increases. Provided the costs to a government C_j increase with mobilization at different rates, then nonviolence may impose higher costs if m_{max}^{n} is sufficiently greater than m_{max}^{v}.

Figure 9: Costs by mobilization m and tactic for the government (left) and to dissidents (right)



(a) government (b) dissident group

The total costs to dissidents C_i can also differ by tactics, for example if their vulnerability to government repression differs by maximum individual mobilization m. The total costs for participants in nonviolent dissent C_{n_i} are high when participation m is low. However, there is an

important safety-in-numbers effect as the likelihood of an individual being targeted declines with the numbers mobilized m, and more difficult for the government to retaliate against large movements (Chenoweth and Stephan, 2011; Nepstad, 2011, 2013). Provided the costs to dissidents increase with mobilization at different rates, nonviolence may be less costly to dissidents if m_{max}^{n} is sufficiently greater than m_{max}^{v}.

Territorial nonviolent campaigns

The NAVCO data only records 13 territorial nonviolent campaigns in sovereign states, not including campaigns in colonies. Two campaigns coded as territorial and responses to foreign occupation—Czechoslovakia 1968 and Hungary 1956 following interventions by USSR— could arguably be considered anti-government. Five of the other cases take place in the former Soviet Union or Yugoslavia at the end of the Cold War. Note that the NAVCO data do not include many prominent secessionist movements such as Catalonia, Quebec, and Scotland, where movements rely on conventional political participation rather than direct action.

Table A2: Territorial nonviolent Campaigns

	Campaign					Group	
Country	**Name**	**Year**	**Target**	**Goal**	**Total Pop†**	**Pop†**	**Size**
Czechoslovakia	Czech Anti-Soviet Occupation	1968	Soviet Occupation	Anti-Occupation	14361	8976	0.63
Czechoslovakia (Slovakia)	Public Against Violence	1989	Czech Communist Government	Territorial Secession	15638	4817	0.31
China (Tibet)	Tibetan Uprising	1987	Chinese Occupation	Anti-Occupation	1104193	5079	0.005
Hungary	Hungary Anti-Soviet Occupation	1956	Soviet Occupation	Anti-Occupation	9911	8920	0.9
Indonesia (East Timor)	Freitilin	1974	Indonesian Occupation	Anti-Occupation	127545	6377	0.05
Israel (Golan Heights)	Druze Resistance	1982	Israeli Occupation of Golan	Greater Autonomy	4027	20	0.005
Nigeria (Ogoni)	Ogoni Movement	1990	Nigerian Gov. & Corp. Exploitation	Greater Autonomy	96154	481	0.005
UK (Northern Ireland)	IRA	1968	British Occupation	Anti-Occupation	55214	663	0.012
USSR (Estonia)	Singing Revolution	1987	Communist Regime	Greater Autonomy	282830	1414	0.005
USSR (Georgia)	Gamsakhurdia & Abkhazia	1989	Georgian Occupation	Territorial Secession	287630	4803	0.01
USSR (Latvia)	Latvia Pro-Democracy Movmt.	1989	Communist Regime	Territorial Secession	287630	1726	0.006
USSR (Lithuania)	Sajudis- Lithuanian Pro-Dem. Movmt.	1989	Lithuanian Regime	Territorial Secession	287630	2876	0.01
Yugoslavia (Kosovo)	Kosovo Albanian Nationalist Movmt.	1981	Yugoslav Government	Greater Autonomy	22471	2023	0.09
Yugoslavia (Kosovo)	Kosovo Albanian	1989	Serbian rule	Greater Autonomy	23695	2133	0.09
Yugoslavia (Slovenia)	Slovenia Anti-Communist	1989	Communist Regime	Regime Change	23695	1896	0.08
Yugoslavia (Slovenia)	Slovenian Independence	1990	Yugoslav Government	Territorial Secession	23818	1905	0.08

†Population in thousands. Source: NAVCO 2.0 campaign data, population data from the World Bank, group share data from EPR. Population values for Tibet from Hao (2000) and Golan heights estimate from https://www.bbc.co.uk/news/world-middle-east-14724844.