Striking it Free? Organized Labor and the Success of Civil Resistance

Charles Butcher, John Laidlaw Gray and Liesel Mitchell

Abstract

Studies show that civil resistance movements are more effective than violent insurgencies at achieving goals of regime change and secession, and more often result in post-conflict democracies. Variation within civil resistance campaigns has received less attention. Some civil resistance movements succeed, and others fail. This study examines the role of organized labor in explaining these divergent outcomes. We argue that organized labor brings increased ‘leverage’ and ‘resilience’ to civil resistance movements and increases the likelihood of success. We test this hypothesis on civil resistance campaigns from 1946-2006 and pro-democracy movements in Africa from 1990-2013. Overall, our findings suggest that the participation of organized labor in collective dissent increases the probability of success.

Word Count:

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Introduction

Why do some civil resistance movements succeed, while others fail? Why was there an Egyptian revolution in 2011 but no Syrian revolution? This is an important question practically and theoretically. Civil resistance may be more effective at regime overthrow than violent insurgency and raise the probability of democratic transitions (Chenoweth and Stephan 2011; Celestino and Gleditsch 2013; Johnstad 2010; Ackerman and Karatnacky 2008), but roughly half of civil resistance movements fail (Chenoweth and Stephan 2011). Moreover, failed movements may be more likely to transition into civil wars where large portions of society are mobilized against the regime, or sections of the military have defected (Pierskalla 2010). Civil wars in Guatemala, El Salvador, and Colombia emerged in the wake of civil resistance, and ineffective protest may be one of the steps on the path to ethnic rebellion (Öberg 2002). War in Syria followed the 2011 uprising and has cost more than 150,000 lives (Surk 2014), displaced nine million people and spread into Iraq, precipitating a genocidal wave of violence against ethnic and religious minorities.

We argue that the mobilization of organized labor is critical to the success of civil resistance movements. Building on the work of Schock (2005; 2013) and Chenoweth and Stephan (2011), whilst also incorporating insights from bargaining theory (Fearon 1995; Acemoglu and Robinson 2009), we theorize that “National Trade Unions” (NTUs) have characteristics that make them effective at nonviolent action. To use Schock’s (2005) terms, they bring resilience and leverage. Resilience is the ability to withstand or minimize the costs of government repression and leverage is the ability to impose costs on the government without resorting to violence. Civil resistance movements with organized labor participation can also expect increasing power in the post conflict period, easing commitment problems between the government and (nonviolent) rebels. We expect that movements with substantial organized labor participation are more effective than those without.

Our empirical analysis supports these claims. We examine campaign years from 122 nonviolent movements between 1946-2006 using the Nonviolent and Violent Campaigns and Outcomes Data (NAVCO: Chenoweth and Lewis 2013b) and campaign days from
388 pro-democracy struggles in Africa from 1990-2013, based on the Social Conflict Analysis Dataset (SCAD: Salehyan et al 2012). Logit and Cox proportional hazards models show that 'strategic success' and regime transitions are more likely when organized labor participates in civil resistance. These results also suggest that high participation is one of the causal mechanisms driving this result.

The paper proceeds as follows. First, the extant research on the success of civil resistance is detailed. We then explain our theory linking the participation of organized labor to the success of civil resistance. Third, we describe our research design and display our results. The conclusion considers some of the study’s weaknesses and potential extensions.

**Existing Research**

The growing body of research on civil resistance has examined questions of onset and strategic choice (Pearlman 2011; Chenoweth and Lewis 2013b, Butcher and Svensson 2014; Cunningham 2013; Asal et al 2013; Chenoweth and Ulfelder 2015; Gleditsch and Riveria 2015), success rates and democratization in comparison to violent insurgency (Chenoweth and Stephan 2011; Stephan and Chenoweth 2008; Celestino and Gleditsch 2013; Karatnycky and Ackerman 2005; Johnstad 2010; Ulfelder 2005) and variance in the success of civil resistance in particular (Svensson and Lindgren 2011b; Chenoweth and Stephan 2014; Nepstad 2011; Schock 2005; Sharp 1973, 2010; Ackerman and DuVall 2000; Bartowski 2013; Marchant and Puddington 2008).

This important body of research has significantly advanced our understanding of the success of civil resistance, but has generally not disaggregated the types of social actors that participate in civil resistance and the impact that different patterns of participation have on success.1 More abstractly, we do not have strong theory on how different social groups affect the ‘capability’ of civil resistance movements. High participation and security force defections make protests more likely to succeed (Chenoweth and Stephan

1 In contrast, the literature on violent insurgency has begun to disaggregate the types of actors that participate in rebellions, see Cederman Wimmer and Min (2010). Research has also examined the role of labor unions on democratization processes (e.g Teorell 2010; Collier and Mahoney 1997).
2011; Lichbach 1995; DeNardo 1985), for example, but these outcomes are not exogenous. Participation is mobilized by social actors drawing on pre-existing networks and institutions (Lichbach 1995; Goldstone 1994; Staniland 2012). Some movements will be big (and successful), and others small (and unsuccessful), depending on the social groups that participate. Similarly, Schock (2005; 2013) emphasizes ‘leverage’ and ‘resilience’ as key factors in the success of civil resistance. We draw heavily on Schock’s work here, but also emphasize that civil resistance will have more or less leverage and resilience depending upon the types of social actors that are mobilized into collective dissent.

Research on social movements and collective action also directs us to the idea that variation in the types of groups that are mobilized for collective dissent influences campaign effectiveness (Staniland 2012). Lichbach (1995) calls this the ‘pathology’ of rebellion, meaning that the ways through which dissenting groups overcome collective action problems have downstream effects on the types of actions dissidents can undertake and the types of societies that emerge post-conflict. Different social groups afford different mobilization and tactical opportunities, depending upon their social networks (Lichbach 1995; Schock 2005; Butcher and Svensson 2014). Students often initiate and participate in nonviolent protest movements, such as Otpor! in the Former Yugoslavia, though they bring different tactical capabilities and potential leverage than, for example, an oil workers union in Nigeria (Sharp 2013: 30; see also Nepstad 2011; Schock 2005; Burrowes 1996). How the mobilization of different social groups impacts the effectiveness of civil resistance movements has generally not been explicitly theorized, nor are there quantitative studies of which we are aware, that test the impact of different types of mobilized collective actors on the success of these specifically nonviolent movements. We take up this question in this paper.

**Theoretical Framework**

Our core question is why regimes sometimes offer substantial concessions to an opposition movement (up to the resignation of the head of state), and why the opposition accepts them. We consider the resignation of a head of state as a ‘concession’ because
*regimes*, considered as the group of elites in control of the state (such the military or important party elites) often do concede this to preserve elements of power in the face of mass dissent. ‘Success’ in this paper refers to the opposition obtaining and accepting concessions of regime change, democratization, or territorial secession/autonomy.

Our argument is built upon two assumptions. First, governments offer concessions to ‘high capability’ rebels and not to ‘low capability’ rebels. Second, concessions will be rejected if the rebels believe that the government will renege post-conflict. This was the case in Syria when the Asad regime offered limited liberalization in mid 2011, including the lifting of a fifty-year state of emergency, but these concessions were eventually rejected.² Thus, ‘success’ occurs when: (1) the government learns that it faces ‘high capability’ rebels, and (2) when the rebels believe that credible commitments can be made. Explaining success in nonviolent movements therefore requires that we engage with the nature of ‘capability’ in civil resistance and the commitment problems that may arise.

**Capability and Commitment in Nonviolent Conflict**

**Capability**

There is now an established literature on bargaining and the communication of capability in violent conflict (Fearon 1995; Slantchev 2003a; Slantchev 2003b; Filson and Werner 2002; Powell 2004). The study of ‘capability’ in nonviolent conflict is at an earlier stage, and we focus on the concepts of leverage and resilience, developed by Shock (2005), as key components.

Leverage is the ability to impose costs on an adversary without resorting to direct physical violence. High-leverage movements can induce defection from important ‘pillars’ of the government, making the status quo costly for the regime (Sharp 1973). For example, Nigeria’s dependence on oil exports makes the Nigeria Union of Petroleum and Natural Gas Workers (NUPENG) a powerful organization in terms of leverage. Conversely, economically excluded sectors of society, such as some ethnic groups upon

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² Of course, internal divisions can create commitment problems and make bargains hard to strike (Walter 2009)
which the government is not dependent, have lower levels of leverage, and thus find it challenging to impose costs on the government without resorting to physical violence (Butcher and Svensson 2014).

Resilience is the ability to reduce the costs of government repression (Schock 2005). High resilience movements can survive, and in some instances thrive, in the face of government repression. Schock (2005) describes three factors that increase resilience – a decentralized but coordinated organizational network, the capability for tactical diversity, especially concentration (marches, demonstrations, etc.) and dispersion (strikes, boycotts, stay-aways), and the ability to tactically innovate. Decentralized networks make it difficult for a government to target the movement’s leadership, while strong coordination mechanisms enable the movement to continue acts of collective action in the face of repression. Dispersion tactics spread participants widely, and raise the costs of repression (Burrowes 1996: 224; Sharp 2010: 57; Chenoweth and Stephan 2014).

Leverage and resilience are the two pillars of 'high-capability rebels' in unarmed insurrections (Lichbach 1995). Where unarmed insurrections are able to communicate their ability to impose costs to government actors, by attracting the support of groups important to the functioning of the regime, and can withstand or even grow under repression, we expect the government to more readily offer concessions.

Commitment

Accepting government promises of concessions is risky (Acemoglu and Robinson, 2009). Governments may renege and repress once dissidents have demobilized (Sharp, 2010). Demobilization creates commitment problems for violent insurgencies (Walter 2009; Toft 2009), but there are also significant risks entailed by demobilization following civil resistance. Civil resistance movements often reveal their leadership and mobilization networks to communicate to the government that they are 'high-capability' rebels.

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3 Most maximalist campaigns experience some government repression (Davenport 2007; Chenoweth and Stephan 2011).

4 See Chapter 5.

5 We do not mean to say that these commitment problems are equal, but that they are present in both forms of conflict.
rebels. Moreover, *all* civil resistance movements face commitment problems, in theory, because they choose not to use violence, and are vulnerable to repression by the military, or by parts of the military in the post-conflict period (Sharp 2010: 75). Even successful movements leave large parts of the state apparatus intact post conflict, including the military. In contrast, victorious rebel groups have (presumably) defeated the government’s army and do not face this risk (Toft 2009). Anecdotally, peacekeeping is rare after nonviolent conflicts, so third party-guarantees are not likely to be available (Walter 1997). Given that the military, even when it defects, still retains power in terms of organized violence, commitment problems are an important part of explaining why civil resistance movements succeed. Presumably these movements do not accept government concessions, or concessions from the military, when they do not believe that they will be adhered to.

Commitment problems will be severe when dissidents do not believe they can punish government defection from a package of concessions. Movements with high leverage and resilience can continue powerful acts of resistance in the face of government repression, which in turn raises the cost of repression for a post-conflict government, and when rebels know this, they may be more likely to accept concessions. Second, where rebels expect that that their ability to mount high-capability civil resistance will *increase* in the post-conflict environment, they may be more likely to accept government concessions in the present.

In sum, nonviolent movements are more likely to succeed when they are ‘high capability’ in terms of leverage and resilience, and when they have expectations of increased capability post-conflict. In the following section, we discuss how the participation of organized labor, especially “National Trade Unions” increases the capability of civil resistance campaigns and enables them to overcome commitment problems.

**Labor Organizations and Civil Resistance Success**

*Defining Trade Union Movements*

Trade Unions can be thought of as (a) legal institutions claiming to bargain for workers rights and (b) social movements advocating for changes to laws or conditions that affect
working people (Black, Hashimzade and Myles 2012). Trade unions can exist where they are illegal, so long as there remains continuous association between employees with the self-understood goal of improving conditions related to the workplace. Trade unions can emerge (or re-emerge) during a civil resistance movement. For example, Prodrepka (Support) emerged in 1989 in Bulgaria as an independent National Trade Union (NTU) to compete with and resist the Communist and state-run Confederation of Independent Trade Unions of Bulgaria (Docherty and van der Velden 2012). In our data, the vast majority of NTUs that participate in civil resistance are less than 10 years old, and 16 formed during, or initiated, a civil resistance campaign.

Trade unions can represent single industries, skill areas or workers in general. We focus on NTUs - organizations claiming to represent the interests of a ‘national’ group of workers irrespective of trade, industry or geography. General Workers Unions and Trade Union Federations and Confederations fall into this category. Three criteria classify an organization as an NTU under our conceptualization. They must (1) articulate workers interests as a core aim, (2) claim to represent the interests of a ‘national’ collectivity, and (3) claim to represent those interests irrespective of industry, trade or skill. Lindvall (2013) and Hamman, Johnston and Kelly (2013a & 2013b) also focus on NTUs and trade union confederations in their work on political strikes. To ‘participate’ in nonviolent action, NTUs must (1) organize or participate in collective action (i.e. demonstrations, strikes or boycotts) with (2) the stated goals of supporting a civil resistance movement, or by articulating the same maximalist goals as the movement. This fairly stringent definition of participation is similar to that in Chenoweth and Lewis (2013a). For example, the Bolivian Workers Central, which is a confederation of trade unions, counts as an NTU in our scheme, while the Union Federation of Bolivian Mine Workers does not, as its membership is linked to employment in mineral extraction. The Beijing Autonomous Workers Federation that formed during the 1989 Tiananmen Square protest does not count as a NTU due to its geographically limited membership (Schock 2005), while the Kosovo Independent Trade Union Federation does, because it was linked to a discernible “Kosovar” national identity.

6 ‘National’ identities and geographical identities may, but do not always, overlap.
National Trade Unions and Campaign Success

The participation of NTUs in civil resistance increases the probability of success by (1) increasing leverage, (2) increasing resilience, and (3) easing commitment problems. We use some anecdotal examples from the so-called “Arab Spring” in this section to support the plausibility of our causal mechanisms.

NTUs generally form out of dense urban networks of workers, as well as pre-existing labor organizations (Sharp 1973: 45, 779). Moreover, they tend to be organizationally extensive, with membership being theoretically open to anyone within the working population. This affords NTUs the capacity to mobilize large numbers of people into collective action through extensive social networks and the ability to bridge social divides (Kerrissey and Schofer 2013), including through family and other social connections. For example, the Tunisian General Labor Union (UGTT) had a membership of 350,000 before the Tunisian revolution, and Bishara (2014) argues that the UGTT’s ‘geographic reach and its ability to mobilize thousands of members’, have made it a powerful organization in Tunisian politics. Angrist (2013) noted that the UGTT was critical in ‘in the facilitation of mass sustained protests’ in Tunisia in 2010-2011. Of those respondents who answered “yes” to the question of whether they participated in the 2010-2011 protests in the 2011 Afrobarometer survey, roughly 11% were trade union members, as compared to just over 1% for people who responded “no” to the same question (Afrobarometer 2012; Bessinger et al 2015). Although this is a small number in an absolute sense, union members can be a minority of protesters, and also have played an important role in the mobilization of non-union members through pre-existing organizational networks, and especially in spreading the protests geographically. Langhor (2014: 183) states that ‘by far the most important role of the UGTT office and activists was spreading the protests across the country, from Kasserine and Gafsa in the interior to Sfax and Sousse on the Eastern coast to Tunis in the north’. Trade Unions also tend to be ‘moderate’ in the sense that they represent ‘normal’ working people, including strong representation by women. NTU participation likely communicates to the government (as well as other potential protesters) that the movement has support from moderates, as opposed to just extremists (Lohmann 1994).
NTU participation in civil resistance can impose substantial costs upon the government. Non-cooperation from workers in the formal economy withdraws resources in the form of goods produced by workers, taxation revenue, and consumption. Previous studies (of democracies) have shown that strikes slow the economy, suggesting that it is not unreasonable to think they would have the same effect in non-democratic states as well (Kim and Gandhi 2010; McHugh 1991; Becker and Olson 1986). In our own data economic growth averaged 1.03% in years with NTU participation and 3.2% in years without.\(^7\) When NTUs join the rebels, the government should update its beliefs to reflect the increased probability that it is facing ‘strong’ rebels. For example, Langhor (2014: 184) argues that when the newly formed EITUF in Egypt organized general strikes in January 2011, the strikes ‘threatened to paralyze the economy’, and may have been a ‘last straw’ that ‘convinced the military to intervene’. In contrast, no independent national trade union movements formed during the Syrian uprising, and Schmidnger (2012: 46) argues that this was ‘one of the main reasons why strikes and other forms of worker’s struggle could not be used to overthrow the regime, and why the conflict developed into a civil war’ (see also Langhor 2014). Few other social organizations have this combination of extensive mobilization potential and the ability to leverage dependencies with the state. For example, religious organizations and students may be able to mobilize large numbers of people, but they do not necessarily have the ability to leverage a dependency with the state.

Second, the organizational infrastructure of NTUs tends to be decentralized with a wide geographic spread because they are often made up of federations of smaller sectoral trade unions, a feature that characterizes the UGTT in Tunisia, for example (Bishan 2014; Langhor 2014). Selective repression is difficult and costly in this circumstance. Angrist (2013: 560) writes that, in the case of the 2011 Tunisian revolution:

“The nationwide geographical extension of dissent [facilitated by the UGTT] was strategically crucial to the revolution, as it prevented the regime’s coercive forces from containing the protests in a small area. Instead, the regime’s security forces were obliged to react to multiple widespread disturbances which surpassed their ability to repress the movement.”

\(^7\) Restricting the sample to years that were not the first or last year of the campaign the difference is larger, 0.35% on average for years with NTU participation, compared to 3.76% without.
By nature, NTUs also have pre-existing organizational structures to coordinate strikes and often have experience in strike actions and collective dissent (Sharp 1973: 779). Dispersion tactics (such as strikes, boycotts and stay-aways) are also more costly (both in material and informational terms) for the government to repress than concentration tactics, such as demonstrations. NTU participation tends to be associated with an uptick in such strike activity. In our data there were 0.74 general strikes per year in which an NTU participated in an ongoing nonviolent campaign and 0.22 when they did not.\footnote{Data from the Cross National Time Series Data Archive, 2015 version (Wilson 2015). We emphasise that general strikes in the CNTS data archive do not necessarily have ‘maximalist’ goals and may be limited to economic issues.} Trade unions can also mobilize for concentration tactics, opening the way for tactical innovation. NTU participation is also associated with more demonstrations – 3.2 per year compared to 2 per year without NTU participation. Given NTU’s dense but decentralized organizational networks, their ability to effectively use both concentration and dispersion tactics, and their potential for tactical innovation, we expect that civil resistance campaigns with NTU participation will have increased resilience.

Third, NTU participation enables dissidents to overcome commitment problems. The ability of NTUs to withstand repression \textit{and} impose costs on the government (leverage and resilience), enables dissidents to retain capability in a transition period. It is also likely, however, that worker’s rights will be part of any post-conflict deal. Independent union membership often surges after the fall of autocratic regimes and these 'free unions' are often at the forefront of consolidating democratic reforms or preventing 'rollbacks' to autocracy (Karatnycky 1992: 48). In Tunisia, the UGTT’s membership doubled from 350,000 to 700,000 members after Ben-Ali’s ouster (Bishan 2014), and independent trade unionism surged after the Egyptian revolution. In Tunisia the UGTT has resorted to collective action to resolve political crises that have threatened the democratization process, most notably when they organized and carried out a national strike in response to the assassination of Mohamed Brahmi, a member of the constituent assembly (Angrist 2013). This pattern is not obviously the case for other types of social groups. Religious group membership may be enhanced by religious freedoms, but this is not necessarily the case given the high personal costs of conversion. Similarly, temporary civic coalitions
may find that mobilization declines post-conflict as shared interests disappear (Bessinger 2013). NTUs are a fairly unique institution in terms of conflict and post-conflict bargaining in that they can reasonably expect that their capabilities will increase in the interim period and demobilization phase.

These arguments lead us to our main hypothesis:

*Hypothesis 1 – The participation of National Trade Unions increases the probability of civil resistance campaign success, as compared to movements that do not have the support of National Trade Unions.*

**Research Design.**

*Unit of Analysis*

We test our hypothesis using: (1) nonviolent campaign years (1946-2006) from the NAVCO 2.0 data (Chenoweth and Lewis 2013b) and (2) campaign days from 388 pro-democracy movements in Africa (1990-2013) (Salehyan et al. 2012). We use logit regression analysis to estimate the likelihood that a movement succeeds at a given point in a campaign using the NAVCO data and Cox proportional hazards models to estimate the impact of strikes on regime transitions.

The unit of analysis (campaign-year) for the NAVCO data comes from Chenoweth and Lewis (2013b). We created the sample of pro-democracy movements in Africa from Salehyan et al (2012) using the following criteria. First, events of nonviolent contention - demonstrations and strikes - targeting the central government with goals of democracy and/or human rights were selected. A ‘campaign’ was created where these events were less than 6 months apart. Thus, a campaign begins on the day that an event of collective action targeted at the central government over issues of democracy or human rights first occurs and ends on the date of the last event after which no similar event occurs in the following six months.9 Our sample includes movements that fizzle out quickly, as well as very long campaigns. We do not select on claim making (short of democracy and human

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9 Because our independent variables are measured at t-1, we lose single day pro-democracy movements.
rights), which is likely to be endogenous to capability (for an application to violent conflict see Buhaug 2006). This dataset also allows us to explore the timing of participation, and to deal with endogeneity issues, especially the possibility that NTUs ‘bandwagon’ by joining the movement when they know it will win. The main downside is that we potentially include movements with reformist goals that are not comparable with the maximalist campaigns in Chenoweth and Lewis (2013b). Given the strategic nature of claim making against the regime, we think it is better to include these movements. We then used this dataset to create a campaign-day dataset with an observation for every day the movement was active. In total this method results in 388 unique episodes and 48,413 campaign-day observations. The longest movement we include lasts 1642 days and the shortest lasts 2 days.

**Campaign Success**

We operationalize success as a score of 3 or more on the ‘progress’ scale in the NAVCO data as recommended in Chenoweth and Lewis (2013a). These are movements that have obtained “significant concessions” in relation to their goals. For the pro-democracy campaigns in Africa we operationalize success as the occurrence of a regime transition during the period of resistance, or within six months of the campaign ending. We operationalize regime transitions using the PolityIV 'regtrans' variable and the end day, month and year provided (Marshall, Gurr and Jaggers 2014). Of the 122 campaigns in the NAVCO data, 69 were successful, while 61 of the 388 pro-democracy movements in Africa resulted in regime transitions.

**The Participation of National Trade Union Organizations**

There are no global data on the participation of trade unions in civil resistance that we are aware of, and we created original data for campaigns in the NAVCO 2.0 data. We code NTUs as participating in civil resistance when there is evidence to suggest that an organization claiming to represent workers interests (without respect to industrial sector, skill, or geographical location) participated in “active and observable engagement in collective action” (Chenoweth and Stephan, 2011: 30) and articulated the anti-regime goals of the movement. Practically, we coded the participation of NTUs when evidence
from news sources, news digests, secondary sources and reports stated that these institutions mobilized for collective action with the intent of aiding, joining, or forming a civil resistance campaign with maximalist aims. Our most important sources were *Trade Unions of the World* (Brown et al 2005), *The Historical Dictionary of Organized Labor* (Docherty and van der Velden 2012), McCarthy and Sharp (2010), Schock (2005), Nepstad (2011), the FACTIVA database, Keesings Contemporary Archives/Record of World Events, the *New York Times*, the *Washington Post* and the *Wall Street Journal*. We have placed emphasis on consulting a number of secondary sources for each case, as nonviolent forms of conflict are often underreported in the news media (Day et al 2014).

We code the uncertainty with which we hold coding decisions (Day et al 2014) with an ambiguity score of 1 or 0. Where ambiguity is 1 and participation is 1, we believe on the balance of the evidence that an NTU did participate, but there is some possibility that it did not. In our codebook we cite the source of this ambiguity, along with all sources that led us to these coding decisions. Where ambiguity is 1 and participation is 0 we believe that on the balance of probabilities an NTU did not participate, but it is possible that it did. In the robustness checks discussed below, we weight NTU participation by ambiguity. Cases with ambiguity were scored as 0.5 and cases with little ambiguity were scored as 1 or 0, depending on their value for NTU participation. This ‘ambiguity-adjusted’ variable reflects our confidence that an NTU did participate. Of the 65 campaign years with ‘ambiguity’, 54% of these cases were uncertain due to the institutionalization of the NTU (i.e whether it was a ‘national’ trade union), 45% due to uncertainty over participation in nonviolent action and 12% related to whether the goals were ‘maximalist’.\(^\text{10}\)

We relied on the “general strikes” variable in Salehyan et al (2012) to proxy the participation of organized labor in pro-democracy movements. This allows us to test our hypothesis on data that were not collected for that purpose, but where a plausible proxy for NTU participation exists. Using all general strikes related to human rights and/or democracy also means we partially circumvent the problem of attribution. Publicly

\(^{10}\) These percentages do not sum to 100 because the categories are not mutually exclusive. Ambiguity can arise from multiple sources in some cases.
articulating regime overthrow or democratization arguably carries increased risks of repression (Sharp 2010), and general strikes can occur in the context of maximalist civil resistance campaigns but maximalist goals are not articulated. Whether or not these strikes are actually part of a campaign can involve a good degree of subjective judgment and potential error. We avoid this by including all general strikes that occur in the time-bounds of a campaign, whether they articulated maximalist goals or not, though they must have articulated goals of human rights or democracy to ensure that the strikes are not completely unrelated. Regime transitions are probably unlikely to occur during ongoing strikes, but the capability communicated by a general strike may make regime transitions more likely in the subsequent period. Our general strike variable is lagged by 1 day and decays by 10% of its value after the last day of the general strike.

Control Variables

We have included control variables plausibly related to the participation of organized labor in civil resistance campaigns and the likelihood of civil resistance campaigns obtaining government concessions or effecting regime transitions. We have bundled these into two categories – ‘structural’ and ‘collective action’ control variables.

We include four structural controls: economic growth/decline, modernization, economic development and political freedoms in the target state. Declining GDP growth may lead to escalating labor unrest and regimes may be, independently, vulnerable to collapse at this point (Robertson 2007). Modernization is likely related to the onset of civil resistance campaigns (Butcher and Svensson 2014) and it is also closely related to the formation of dense urban networks and trade unions. Independently, more ‘modernized’ countries may be more likely to transition and we control for this with urban population as a percentage of total population (Lipset 1959). Economic development is likely associated with the increasing power of organized labor to disrupt the economy, potentially making labor activism more likely. On the other hand, economic development can be conducive to regime transitions and democratization (Przeworski and Limongi 1997: Teorell 2010). Finally, political freedoms facilitate the formation of independent organizations, including trade unions, and democratic governments use repression less often, potentially making civil resistance more effective. We have also tried other control variables that are
not reported below, including worker’s rights and rights of freedom of association (Cingranelli and Richards 2013). We also analyzed other measures of modernization such as, the average number of years females attend school (and average schooling in general), and the proportion of manufacturing to GDP. None of these substantially changed the results below.\textsuperscript{11}

Regarding collective action, we have controlled for the movement’s goals, the presence of repression, other forms of collective action (where possible and including violent forms of collective action), the number of other participating ‘social groups’ and a cubic polynomial for the time elapsed since the start of the movement (Carter and Signorino 2010). Movements with non-territorial goals are more likely to succeed (Svensson and Lindgren 2011b) and are plausibly more successful in making broad based appeals for workers rights, thus facilitating the labor activism. Violent repression reduces the probability of success (Chenoweth and Stephan 2011) and may deter the formation of NTUs, and the participation of organized labor in general. Organized labor likely has a tactical advantage in nonviolent forms of collective dissent, and may avoid participation when more violent forms of contention are also taking place. Independently, movements that employ even limited violence may be less likely to be successful (Nepstad 2011). We also (where possible) separate out the effects of NTU participation, which likely involves strikes, from other forms of collective action that do not necessarily involve the participation of organized labor. Finally, NTUs may participate in civil resistance when many other organizations join the movement and an observed effect of NTUs on success may reflect a ‘wave’ of other types of organizations joining the campaign at that point. We also see this control as reflecting the average impact of non-NTU types of social organizations on the success of civil resistance.

Lastly, we control for participation in civil resistance, but in separate models. Participation is likely endogenous to the types of social organizations that mobilize into collective action. Trade Union participation may cause high levels of participation and,

\textsuperscript{11}The results with the Cingranelli and Richards Human Integrity Rights data were not shown because they restrict our sample to 1981 onwards.
indeed, this is what our theory leads us to expect. Since participation increases both leverage and resilience (Dahl et al 2014), in this situation ‘participation’ is a ‘bad control’ (Angrist and Pishke 2009) and we would expect that the size of any effect we see for NTU participation is reduced when controls for participation are included. We suspect that any residual effects reflect the added ‘resilience’ of movements with NTU participation and the ability to overcome commitment problems.

Table 1 summarizes our different data structures, dependent variables, independent variables and control variables, along with operationalizations and sources.
### Nonviolent Campaigns

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Nonviolent Campaigns</th>
<th>Pro-Democracy Movements in Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variable</td>
<td>Participation of Organized Labor</td>
<td>General strike (Salehyan et al 2012). Decays by 1 % each day after the end of the strike. 1 day lag.</td>
</tr>
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<td>Modernization</td>
<td>Infant Mortality Rate (World Bank). 1 year lag.</td>
<td>Infant Mortality Rate (World Bank). 1 year lag.</td>
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<td>Economic Development</td>
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<tr>
<td>Repression</td>
<td>Repression score (Chenoweth and Lewis 2013). Decays by 1 % each day after the end of the repression episode. 1 day lag.</td>
<td>Repression score (Salehyan et al 2012). Decays by 1 % each day after the end of the repression episode. 1 day lag.</td>
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<tr>
<td>Violent Collective Action</td>
<td>Radical Flank (Chenoweth and Lewis 2013).</td>
<td>Dummy for Pro-Democracy 'Violent Riot' (Organized or Spontaneous; Salehyan et al 2012). Decays by 1 % each day after the end of the riot. 1 day lag.</td>
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<tr>
<td>Other forms of Nonviolent Collective Action</td>
<td>NA</td>
<td>Dummy for Pro-democracy Demonstrations (Organized or Spontaneous; Salehyan et al 2012). 1% decay per day. 1 day lag.</td>
</tr>
<tr>
<td>Number of participants</td>
<td>Campaign Size (Chenoweth and Lewis 2013).</td>
<td>Number of participants in last Pro-Democracy Demonstration (Organized or Spontaneous; Salehyan et al 2012). Decays by 1 % each day after the end of the demonstration. 1 day lag.</td>
</tr>
<tr>
<td>Number of Active Organizations</td>
<td>Campaign Organizations (Chenoweth and Lewis 2013)</td>
<td>N/A</td>
</tr>
<tr>
<td>Movement goals</td>
<td>Anti-regime goals (Chenoweth and Lewis 2013). Coded as &quot;1&quot; if goals were &lt;=3 on the &quot;camp_goals&quot; variable.</td>
<td>NA</td>
</tr>
<tr>
<td>Time</td>
<td>Time since start of the campaign (years)</td>
<td>Time since start of the campaign (days)</td>
</tr>
</tbody>
</table>

### Control Variables

| Data Structure | Campaign Years (n = 329) | Campaign-Days (n = 48,413) |
Method of Analysis

We ran seven models using the NAVCO data. The first models the impact of NTU participation on success without controls. The second includes the ‘structural’ control variables. The third includes the ‘collective action’ control variables. Fourth, we use the ambiguity-adjusted measure of NTU participation with collective action and structural controls. The fifth model takes those variables that we have the strongest expectations, both theoretically and empirically (based on the previous models), to be related to NTU participation and the success of civil resistance, and run an analysis using coarsened exact matching (Iacus et al 2013). We then run two models testing the impact of NTU participation on strategic success while controlling for campaign size. The first uses the unadjusted NTU variable and the second uses the ambiguity-adjusted variable. All regression models were run using the Zelig program version 4.0 in the R software platform (Imai et al 2008). For the NAVCO data we have used multiple imputation with the Amelia II package (Honaker et al 2012). In addition to the logit models reported here we also used ordered logit models of Chenoweth and Lewis’s (2013) ‘progress’ variable, with generally stronger results that can be found in the online appendix. We have used Cox proportional hazards models to estimate how the probability of regime survival is impacted by general strikes in the sample of African pro-democracy movements.

Results

Figure 1 shows the temporal distribution of organized labor participation in civil resistance, along with the frequency of regime transitions for our two different data structures. The left hand panel shows this distribution over the full range of the time period for each data structure, while the right hand panel shows a ‘typical’ panel of data, in this case for Nigeria in the mid-1990s. The grey bars represent values on our independent variables: NTU participation (NAVCO data) and general strikes (SCAD). The black lines represent values on our dependent variables: success (NAVCO), regime transition (SCAD).
Figure 1: Organized Labor and the Success of Civil Resistance Across Two Data Structures.
Table 2 shows the results of a chi-squared test for the relationship between NTU participation and strategic success, in addition to the results of one-way ANOVA tests of the relationship between the time since a general strike and regime transitions for pro-democracy movements in Africa. For the NAVCO data, 54.3% of campaign years where NTUs participated also saw strategic success and this proportion is significantly higher than those campaign years without NTU participation, where 28.8% saw strategic success. This finding is replicated in the sample of pro-democracy movements in Africa. The value of the general strike decay variable indicates that when regime transitions occur there was a general strike 24 days ago (on average) as compared to an average of 43 days ago when transitions do not occur.

Table 2 – Bivariate Correlations, Organized Labor and Success

<table>
<thead>
<tr>
<th></th>
<th>NAVCO Campaigns, 1946-2006</th>
<th></th>
<th>SCAD Pro-Democracy Movements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NTU Participation</td>
<td>No NTU Participation</td>
<td>p</td>
</tr>
<tr>
<td>Strategic Success (%)</td>
<td>0.543</td>
<td>0.288</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Transition</td>
<td>No Transition</td>
<td>p</td>
</tr>
<tr>
<td>General Strike Decay Value (t-1)</td>
<td>0.088</td>
<td>0.019</td>
<td>0.000</td>
</tr>
</tbody>
</table>
These results, while encouraging, do not indicate that organized labor has an independent impact on the success of civil resistance movements. Strike activity likely correlates with other forms of nonviolent, or violent collective action, and it may be these forms of collective action that are driving the results. NTUs may also join protest movements that are already large and powerful, especially in the NAVCO data where NTU participation is measured in the same year as (but before) success. Other studies (Teorell 2010) suggest that strikes have an insignificant effect on democratization when controlling for other forms of collective action, and in this case the relationship between organized labor and the success of civil resistance could be epiphenomenal, although the possibility would remain that it is organized labor that makes other forms of collective action possible, especially demonstrations.

The results of our multivariate regression analysis explore some of these possibilities. Figure 2 shows the results of logit regression analysis of NTU participation on the strategic success of civil resistance movements (the regression tables can be found in the appendix accompanying this article). The panels in Figure 2 show the simulated marginal effects of a change in each independent variable from its 10th percentile value to its 90th percentile value.\textsuperscript{12} The models progress as described earlier in the paper.

Figure 2 – Marginal Effects of NTU Participation on “Strategic Success”, Nonviolent Campaigns 1946-2006

\textsuperscript{12} The effects of time variables are not shown.
Figure 2 suggests that on average, NTU participation increases the probability of ‘strategic success’ in terms of regime change or territorial autonomy/secession. This effect is a 25.2 percentage point increase (from a probability of roughly 29.2% without NTU participation to 54.4% with NTU participation, on average across the simulations and 5 imputed datasets). The 95% confidence intervals do not cross the ‘zero effect’ line in Figure 2, suggesting that this effect is likely to be positive. Including structural control variables slightly increases the size of this effect to 25.6 percentage points, and with little change in the lower bound of the confidence interval. Collective action controls (not including participation at this stage) increase the effect to 27.8 percentage points and this effect remains confidently positive. The matched data provide a similar estimate with an average increase of 26 percentage points and a lower bound of 14.1 percentage points.\footnote{It is possible that this result reflects the exclusion of missing observations.}

The ‘ambiguity-adjusted’ measure of NTU participation shows the largest marginal effect of 33.3 percentage points (with a lower bound of 20.3). This suggests that the ‘clear’ cases are driving the positive effects of NTU participation on success. The most common scenario when we code a “0” for NTU participation but a “1” for ambiguity is where
there is substantial participation by ‘workers’ but we could not find evidence of a national institution representing workers interests forming. When we code a “1” for NTU participation with ambiguity, usually this is due to uncertainty over the extent to which dissenting labor groups were organized in a national institution. The ambiguity-adjusted results suggest that NTU participation has the most powerful effect when mobilized into clearly identifiable, public national unions. The participation of organized labor more generally, however, even where there is some uncertainty over the level of institutionalization of the national union, still appears to have a positive effect on success. This interpretation receives support in our analysis of pro-democracy movements in Africa, discussed below.

We now explore the relationship between NTU participation, campaign size and campaign success. Figure 3 shows that campaign size and campaign ‘progress’ (up to and including full success) are clearly correlated as the observations cluster towards ‘full success’ at the highest levels of participation (DeNardo 1985; Chenoweth and Stephan 2011). Bigger campaigns also appear to be characterized by NTU participation. Large dots (NTU participation) become more common as campaign size increases. Where there were more than 1 million participants, NTUs were involved 77% of the time. This declines to 44%, 26% then 11% for 100,00+ people, 10,000+ people and 100+ people respectively.

Figure 3 – Campaign Progress, Participation and NTU participation, 1946-2006.
Figure 4 shows the effects of NTU participation on strategic success when we control for participation. Campaign size has a predictably large effect on success, but on average there remains a positive residual effect for NTU participation of about 13.5 percentage points. The lower bound of the 95% confidence interval is positive (0.015), but only just. 98.8% of the simulations indicate a positive effect of NTU participation on strategic success when controlling for participation (i.e roughly 1.2% of simulations indicate a negative or zero first difference), which, given that our hypothesis is one-tailed, is fairly strong evidence that there is a residual positive impact of NTU participation on success. A clearer positive effect emerges when we use our ambiguity-adjusted measure with a mean effect of 21.4 percentage points and a lower bound of 5.7.
These results suggest that the participation of NTUs in civil resistance campaigns increases the probability of success, on average, but this effect declines when controlling for campaign size. This could indicate: (1) that NTUs are a cause of large demonstrations and the effect of organized labor on the success of civil resistance runs through higher levels of participation, (2) NTUs and participation in general are not causally related (which we think is theoretically unlikely) or (3) NTUs join large protest movements, ‘bandwagoning’ on the collective action of others, or, in other words, large participation causes NTU participation. NTU participation and campaign size are measured in the same year in the NAVCO data making it difficult to disentangle the causal chain. We explore the possibility of (3) with our analysis of pro-democracy movements in Africa, but the residual effect of NTU participation when controlling for campaign size suggests that NTUs bring additional capabilities to civil resistance. We think these additional
capabilities are resilience and an ability to overcome commitment problems. An additional problem with the above estimates is that much of the variation is cross-sectional, largely because there are only a few observations per unit (the average campaign lasts only 3 years, or 3 observations). This makes it difficult to make before and after estimates of causal effects, and, while we have also re-retested the above models with random intercepts for each unit (campaign) to partially account for this, it remains possible that the effects reported above reflect unit-level, but unobserved, factors that make it more likely that NTUs emerge and/or participate in civil resistance, and that civil resistance will be successful. We exploit the finer over time variation in the sample of pro-democracy movements in Africa to examine these questions.

In the following section we use Cox PH models to estimate the effects of general strikes on regime survival in Africa. Below we show the results for two models and both include all of the control variables specified in Table 1 (i.e. structural and collective action controls). The first model does not add a (decay) variable for the size of the last demonstration, while the second model does. Schoenfeld residuals show that the ‘riots’ and ‘limited strikes’ variables violate the proportional hazards assumption at the 0.05 level. We included interactions with the natural logarithm of time for these two variables. Marginal effects for Cox PH models are difficult to interpret, especially when there are interaction effects with time (Brambor and Clark 2006; Gandrub 2014; Licht 2011) so we show how the hazard ratio changes with changes in the time since a general strike (the general strike decay variable) using simulated marginal effects from the simPH package in R (Gandrub 2014). Figure 4 displays our results with the upper panels showing effects when participation is excluded, and the lower panels when it is included. The left hand panels show effects when we assume a linear relationship between the value on our strike decay variable and regime survival, while the right hand panels relax this assumption and fit a cubic spline to the ‘general strike’ variable to ascertain how regime survival varies as the time since a general strike increases.

14 Although high levels of participation also entail resilience (Dahl et al 2014) so these effects are difficult to empirically separate.
Figure 5: Marginal effect of general strikes on the hazard of regime transitions, Pro-democracy movements in Africa 1990-2013.
Figure 5 suggests that general strikes have a positive impact on the risk of regime transitions including when we control for the size of the last demonstration. Put differently, even when there has been a recent demonstration that was very large (i.e. participation was high), a general strike makes regime transitions even more likely. We can see this as the lower bound of the simulations do not cross “1”, which, in this case reflects a hazard ratio no different from when there was no strike. Interestingly, the effect is not linear. Ongoing strikes (i.e when the value on our decay is “1”) do not significantly increase the ‘hazard’ of regime transition, but between 3 days and 1 week after a general strike the risk of regime transitions is significantly higher (on average, nearly 5 times higher). Demonstrations and riots in contrast are most effective as they are ongoing, with fast depreciation in the effects over time (these figures can be found in the appendix). We observe a similar ‘inverted-U’ shape for limited strikes. This suggests that governments respond to strikes differently than other forms of collective action.

To probe our results further, we allowed the effect of our collective action variables to change over time by including interactions with (log) time since the beginning of the campaign. Figure 5 shows the marginal impact on the ‘hazard’ of transition when changing the specified form of collective action from occurring in the day prior to no form of collective action having occurred. Figure 5 shows these results for the first 730 days of a campaign. Again, we see the positive marginal impact of general strikes on regime transitions as indicated by simulation lines that do not cross the “1” threshold indicating a nil effect. General strikes appear to have a confidently positive impact on regime transitions even 400 days into a movement. Limited strikes and riots are only effective in the early stages of a movement, to the point that these tactics have negative effects on transitions (i.e they make regimes more durable) at later stages in a movement. Demonstrations are also most effective early on, but have a diminishing marginal impact over time. For repression, we see a ‘backfire’ effect operating. Repression enhances regime survival in the early stages, but has the opposite effect as movements endure. The
median estimate is actually positive one and a half years after the beginning of a pro-democracy movement (i.e repression makes governments more likely to transition).

Figure 5: Impact of general strikes on the hazard of regime transitions over campaign duration, Pro-democracy movements in Africa 1990-2013.
Conclusions

The results of this paper suggest that organized labor is important to the success of civil resistance movements. The participation of organized labor affords nonviolent dissidents leverage and resilience and enables the formation of credible commitments. Our results were consistent across the two data structures and operationalizations of our independent and dependent variables, suggesting that the participation of organized labor in civil resistance helps bring down regimes.

There are limitations to the analysis, as it stands. It is possible, for example, that the results are driven by unmeasured or unobserved factors correlated with labor dissent and regime transitions, but reflective of an alternative causal pathway to the ‘success’ of civil resistance. Our new data of NTU participation is also probably biased towards larger NTUs that are able to have an impact on regime transitions and make it into the public record. There are likely to be ‘failed’ attempts at NTU formation that did not make it into our dataset. That said, we still find that NTU participation has a positive effect on the success of civil resistance when we use an ambiguity adjusted measure that should pick up failed attempts at NTU participation, and the ‘general strikes’ variable from the SCAD data that should not be subject to the same biases. Our results do not mean that other social groups do not possess the characteristics we have outlined here. Religious organizations have been powerful actors in civil resistance (in South Africa, the Philippines, and much of Latin America) and students have effected sweeping changes elsewhere (Thailand). But we do not think that these effects are likely to be as strong and systematic as we have observed for organized labor. For example, information on the number of new organizations participating in civil resistance in a given year could be interpreted as capturing the effect of participation by non-NTU civil society organizations. We find that this information does not confound our results, nor is it an especially strong predictor of success. Finally, there are contextual factors that likely condition the effectiveness of organized labor in civil resistance (Robertson 2004, 2007). These may be the extent to which organized labor is united. It may depend on outside
support, or the history of labor mobilization. Our data are coarse in this regard, and do not pick up these variations. We see this as an important area for future research.

References


