

ABSTRACT

Title of Dissertation:

THE PROVISION AND IMPACT OF
EXTERNAL MILITARY SUPPORT TO
COMBATANTS IN CIVIL WAR

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External support has been a prominent feature of many internal conflicts during the past half-century. Existing literature has often cited external support as playing a key role in these conflicts. The many high quality recent works looking at external support reflect this realization. Despite this, a number of important questions about external support remain unanswered. This dissertation addresses three important unresolved questions through three different papers. These questions reflect three broad issues of concern: (1) When is external support likely to occur? (2) What impact does external support have on combatant capabilities? (3) To what extent is a supporter able to influence a combatant? Existing work has highlighted the important role that combatant capability plays in influencing the occurrence of support. Combatant capabilities, however, are not likely to have the same impact on the provision of support regardless of the reason why a supporter would become involved. The first play theorizes about this issue as well as conducts preliminary

analysis using new time-varying data of when support is likely to be provided. Similarly, although the influence of external support has largely been assumed in existing academic work—and given limited testing—much recent policy work casts doubt on this influence. Using new disaggregated data on combatant capabilities and the provision of external support, the second paper seeks to identify the impact of support. Support, broadly, is found to heavily impact the ability of rebels to produce large capable forces that are protected from state attacks; this impact, however, depends on the type of support provided. Finally, a main concern for supporters is that they are able to influence the behavior of particular rebel groups. Using supporter influence over rebel use of one-sided violence as an indicator of supporter ability to influence, paper three develops and tests a theory of the conditions required for influence to occur. For influence to occur, a rebel must be reliant on the supporter, the supporter should not be reliant on the rebel, and the supporter must have an incentive to spend resources to exert control.

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COMBATANTS IN CIVIL WAR

by

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Dedication

For my beautiful wife Deniz. Without you I would not have been able to write this dissertation. I will forever be there to support you in your times of need and stress.

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Chapter 1: Predicting Support: The Role of Power, Performance and Preferences

Introduction

Immediately after becoming President of the Democratic Republic of the Congo (DRC) in May 1997, Laurent Kabila accused Uganda and Rwanda of supporting rebel groups such as the Rally for Congolese Democracy (RCD) and the Union of Congolese Patriots (UPC) with key war material such as weapons, bases, and training. These groups were able to fight the government to a standstill over the course of six bloody years of fighting, leading to thousands of battle-related fatalities and hundreds of thousands of excess deaths (Roberts 2001).¹ More recently, the UN detailed how Uganda and Rwanda have jointly helped create, fund, and grow the March 23 Movement, which despite the presence of UN peacekeeping forces (MONUSCO) managed to overrun government positions, kill hundreds of government troops, and displaced nearly 140,000 people (Charbonneau & Nichols 2012).²

Without substantial external involvement it is unlikely that rebel groups would have been able to form and sustain more than a dozen years of high-level of conflict in the DRC. The destabilizing impact of support to rebel groups is not limited to

¹ Roberts, "Mortality in Eastern Democratic Republic of Congo," *International Rescue Committee*, 2001.

² Charbonneau & Nichols, "Exclusive: Rwanda, Uganda arming Congo rebels, providing troops," *Reuters*, 2012.

Africa. In Iraq US intelligence agencies have documented the impact of Iranian support to militias, which led to a “significant portion of Americans killed and wounded” in the last months of 2006 (Gordon 2007).³ External support to rebel groups, when present, intensifies and lengthens conflict.⁴ The importance of external support in influencing internal conflict dynamics generates a clarion call for research on when and why states become involved in another country’s internal conflict in support of a rebel group (either fighting with the group or supporting the group). Existing work on external support has primarily focused on provision to rebel groups as a whole. This work has provided greater understanding of which rebels in a rebel-state dyad received support and limited information about the type of support received over the life of a conflict.

There is strong reason to believe, however, that the impact of internal conflict factors (rebel characteristics, balance of power, etc.) that drive the provision of external support is not consistent across all types of foreign intervention. Instead, the reason why a state would choose to become involved heavily conditions the impact of factors such as the capability of a rebel group. Using new time-varying data on a conflict’s military dynamics (the balance of power and the occurrences of successful and unsuccessful military offensives), as well as information on supporter characteristics this paper develops and tests a theory about how supporter goals interact with rebel/conflict characteristics (power, performance, and preferences) to produce the occurrence of support.

³ Gordon, “Deadliest Bomb in Iraq Is Made by Iran, U.S. Says,” *New York Times*, 2007.

⁴ See, among others, Balch-Lindsay, “Killing Time: The World Politics of Civil War Duration, 1820-1992,” 2000.

This paper focuses on two objectives: (1) developing a more detailed theory about how factors that have previously been determined to influence the provision of support (battle-field outcomes and combatant capabilities) have an impact conditional on the reason why a supporter becomes involved; and (2) preliminary empirical testing of the factors that influence the provision of support.

Literature Review

Importantly, we now know that the availability of a domestic resource base limits rebel demand for external support and that support is more likely to be provided to combatants that are fairly strong.⁵ In addition, research has focused on why a state may provide support by situating the external support transaction within the context of a rivalry between a potential supporter and the state a rebel is fighting. The main finding from this type of analysis is that variation in rivalry intensity influences the provision of external support to a rebel.⁶ Finally, scholarship has also examined the role of ethnic identity both in the form of trans-border ethnic kin and Diasporas, both groups are in a strong position to provide support to in-group members involved in conflict.⁷ In summary, we can create a profile of the most likely recipients of external support: established groups that do not yet have a large base of internal support, groups fighting states with many rivals, and groups with substantial out-of-country ethnic kin.

⁵ Salehyan, Gleditsch, & Cunningham, "Explaining External Support for Insurgent Groups," 2011.

⁶ See, for example, Findley, Piazza, & Young, "Games Rivals Play: Terrorism in International Politics," 2012; Maoz & San-Akca, "Rivalry and State Support of Non-State Armed Groups (NAGs), 1946-2001," 2012.

⁷ Cederman et al., "Transborder Ethnic Kin and Civil War," 2013.

These works are important first steps in helping us understand when support is likely to occur. Existing literature, however, is incomplete in several important dimensions. First, the existing work looking at combatant characteristics is time invariant. This means that we don't understand how changes in the course of fighting may influence the provision of support. In addition there are substantial endogeneity problems that are not adequately addressed. Existing work, for example, has found a clear link between combatant strength and the provision of support and the provision of support and combatant strength. Time-invariant research designs are not able to disentangle this relationship. Support may be provided to weak groups in order to make them stronger as opposed to stronger groups in the first place. It is also highly likely that conflict dynamics influence when and why support is provided. Recent US involvement on behalf of the Iraqi government, for example, is likely to have been driven by the significant setbacks experienced as a result of ISIS offensives. Finally, existing scholarship has identified the role played by supporter goals in determining whether or not support will be provided but not when support is likely to be provided and how much support is likely to be provided.

These problems in existing work limit their ability to explain the actual occurrence of support by states to rebels in intrastate conflicts. The example of Ugandan and Rwandan support to the M23 rebel in the DRC demonstrates this concern. Prior to the onset of conflict the DRC deployed at least six brigades to the Kivu region (and about eight brigades in the rest of the country), putting the mobilized military power of the DRC designed specifically to suppress rebellion Kivu

at around 20,000.⁸ When rebellion was first launched M23 had roughly 300 soldiers, which would suggest a highly unequal contest. By the end of the conflict, possibly in part due to external support, the group's ranks had ballooned to at least 3,000 to 5,000 soldiers, including defections from the military. A force of 5,000 soldiers facing a force of 20,000—likely less due to defections—is a far more favorable balance of power. Similarly, the Mahdi Army in Iraq, which had roughly 500-1,000 militants when it initiated hostilities against the substantially more powerful U.S. military in 2004.⁹ Despite this power imbalance, Iran provided substantial and consistent backing to the Shia group.¹⁰

The answer to this puzzle lies in the fact that not all rebels with strong internal power bases reject support and not all external states are interested mainly in supporting rebel groups that field substantial numbers of militant forces. The “legitimacy” of the external supporter is likely to influence how support is perceived by a rebel's domestic constituents, while the goals of the supporting actor are likely to influence the type of rebel that they are willing to support. In sum, I argue that two factors condition existing findings about when support is likely to be provided (to moderately size rebels often on the basis of rivalry). First, issue similarity (co-ethnicity, co-ideology, co-religion) directly impacts a group's willingness to receive support and a state's willingness to provide support. Second, the goal a state is pursuing will influence the types of rebels it will seek to support.

⁸ Information is from Embassy of Kinshasa, “Congolese Military Proposes Redeployment, Renaming of Integrated Brigades,” WikiLeaks Diplomatic Cables #07KINSHASA452, 2007. The IISS Military Balance puts the DRC's total army size at 110,000. See: International Institute for Strategic Studies, “Chapter Nine: Sub-Saharan Africa,” *The Military Balance*, 2012, 430-431.

⁹ See, Stanford University, “Mapping Militant Organizations: Mahdi Army,” 2014.

¹⁰ Beeston, “British hostages held by ‘Iran-backed’ killers,” *Times Online*, 2007. See also: Eisenstadt, Knights, & Ali, “Iran's Influence in Iraq,” *The Washington institute for Near East Policy*, 2011.

Theory

Specifically, I hypothesize that the impact of rebel power (including ability to do damage and survive) and battlefield dynamics (winning or losing) is conditional on the reason why a supporter seeks to provide support. There are roughly four reasons why a supporter might become involved: (1) in order to pursue security considerations (potentially hostile incumbent); (2) because a state is invested in the well-being of a rebel group (as a potential ally, etc.); (3) for humanitarian considerations (the regime is engaged in significant one-sided violence); and (4) as a means of acquiring natural resources (neighbors who support rebels that can look wealth in resource abundant countries).

If a state is concerned with security considerations it is seeking to balance against a state that may threaten it in the future. States becoming involved for these reasons will want to support a rebel that is able to do damage and survive--the more damage and the longer the group can keep the security threat occupied the better. Resources spent on a lost cause are wasted—better to keep those resources and buttress conventional security forces. Therefore a state interested in security will only provide resources to a capable rebel that is not suffering sustained losses. In general the impetus for support is on the state who is seeking a particular foreign policy objective—rebels are just along for the ride. If multiple groups are present the state will also likely shift its allegiances. (The state may even choose to intervene on its own as opposed to backing a particular rebel.) A similar story is likely to be true for states interested in appropriating natural resources. Only strong rebels will be able to take and hold areas where resources can be extracted, therefore potential supporters

interested in getting access to natural resources will be more likely to back relatively strong groups.

H1: States who support for reasons of rivalry or natural resource acquisition will only back strong rebel groups; shocks such as large battlefield losses or declines in capability will cause states to switch support to a stronger rebel if present.

By contrast, when a state has a potential connection to a rebel group that exceeds purely security-related considerations it will be more interested in the groups' survival and prosperity. In addition, groups themselves may reach out to specific state providers in order to try to elicit support. Unlike security motivations, then, the occurrence of support based on shared values, identity, or goals may be thought of as motivated more by the interests of the group itself. Groups that are in trouble (weak or having recently suffered battlefield losses) will be more likely to try to negotiate for support. The potential supporter may also see greater gain when it is providing support to a group that is in trouble since this can play to domestic considerations as well. Supporting a co-ethnic group that is doing very well in a conflict may have little value to domestic audiences (why spend precious resources on a group that is doing well?). When the group is suffering defeats and the plight of co-ethnics is broadcast for domestic audiences to see, then spending limited resources to help a co-ethnic group may appease domestic audiences and increase leader tenure.

For example, one may imagine that calls for aid to Palestinian militants increased during and following effective Israeli offensives.

H2: States who support for reasons of ethnic or religious connection will be more likely to intervene on behalf of weaker groups or groups who have recently suffered significant battlefield setbacks. Support is not likely to shift during the course of a conflict.

Support based on humanitarian grounds is not likely to respond strongly to battlefield dynamics. Instead, the expectation is that calls (and appeals) for support will increase following significant episodes of one-sided violence. There may still be some threshold however as states will still seek to provide support (which, after all, is still costly to do) only to those groups that have some chance of defending civilians against regime activity.

H3: States who support for reasons of humanitarian concern will not base their support on rebel capability or battlefield conditions. Support is likely to shift based on the humanitarian situation.

In summary, I follow existing work that argues that the observation of external support is a transaction. External support from a state to a rebel occurs only when a rebel is willing to accept it and a state is willing to provide it. States seek to support rebel groups that they believe will advance their interests. Existing work has

argued that states generally seek to support rebels who are stronger, while rebels who are weaker are more likely to accept support. This generates the prediction that only moderately capable rebels will actually get support. States will not be willing to support groups that are weak, while groups that are strong will reject state advances. The theory I present in this paper makes the case that the story is much more complicated. States support for a variety of reasons, which I identify according to a simple typology: rivalry, identity, and humanitarian. From the perspective of the rebel group receiving support, these reasons for providing support provide information about whether or not the outside power shares its national concerns or has transnational considerations that may be at odds with domestic legitimacy. These reasons for support structure when rebels are willing to accept support and when states are willing to provide it. Principally, these reasons for providing support work by conditioning the impact of rebel capability and recent battlefield performance.

Empirics

Continued data collection is required to fully test the theory developed. As a first cut I explore the factors that lead to the provision of support and, once support is provided, the magnitude of support provided. In order to conduct this analysis I assemble a dataset of potential supporters and potential combatants. For each potential supporter and combatant I also measure a host of variables that attempt to capture why a supporter would support a particular combatant. These variables, in effect, capture the similarity of goals between a potential supporter and an actor that may be supported.

Each of the variables measuring similarity of goals is entered into the model for both the potential supporter-actor relationship and for the potential supporter-opponent relationship. This allows me to determine how sharing goals with the actor and the actor's opponent impacts the provision of support differently across the three different support situations (states supporting other states, states supporting rebels, and rebels supporting rebels—there are not enough occurrences of rebels supporting states to allow statistical analysis). The presumption is that shared goals with the actor will attract support (a significant positive coefficient) while shared goals with the opponent will reduce support (a significant negative coefficient). Potential supporters may weigh shared goals with rebels and states differently, however. For example a state may consider the pursuit of a rivalry with another state more important than a rivalry with a rebel. This would lead to disputes with a state opponent being a more significant predictor of support than disputes with a rebel opponent.¹¹ In addition, including goal similarity for both actor and opponent allows me to account for the relative importance of different goals. It is possible, for example, to identify the probability of support for a co-religious regime when disputes are also present.

Model

The dataset assembled is hierarchical and nested at multiple levels. There are yearly observations for rebel groups, and there are often multiple rebel groups fighting together in one conflict. Sometimes there are multiple conflicts that a particular state is involved with. At each level observations are likely to be correlated. Multiple observations of the same rebel group are all related to each other—and

¹¹ This occurrence is rare but it does happen. Out of the 599 cases of state provision of support to other states the state supporter had a dispute with both the state and rebel combatants in six cases.

distinct from multiple observations of other rebel groups. Similarly, there is likely to be groups of correlated observations at two other levels: at the conflict level and at the state level. These observations are also hierarchical: each state has one or more conflict; each conflict has one or more rebel group involved. This data structure is a natural fit for a multilevel model (MLM). A multilevel model introduces separate error terms (random effects drawn from a normal distribution) at each level to capture unobserved heterogeneity.¹² In order to identify when support is provided a logit model is used. The non-zero coefficients for the random intercept suggest that the MLM model is a better fit for our data than an ordinary logit. A likelihood-ratio test provides further evidence that the MLM fits better than the non-MLM model, i.e., there is substantial unobserved heterogeneity at the chosen levels.

The more levels that are chosen the greater the number of random effects that need to be added. Given sample size it is often not possible to use more than one or two levels and still have the maximum likelihood estimate converge correctly. Because of this I prioritize two levels that account for the most unobserved heterogeneity: periods of rebel fighting and country. This accounts for differences between rebel groups and between the same rebel group involved in fighting different opponents, and differences between countries. There is not a strong theoretic reason to believe that additional unobserved heterogeneity should be accounted for. Any substantial changes in government should be reflected in the move from one conflict

¹² For more discussion of why a MLM is used see: Gilardi, "Who Learns from What in Policy Diffusion Processes?," 2010; Shor et al., "A Bayesian Multilevel Modeling Approach to Time-Series Cross-Sectional Data," 2007.

period to the next.¹³ In addition there is no evidence that including year as a level in the MLM improves the model—the coefficient of that random effect is next to zero and there is not theoretic reason to believe that all rebel or state activity in the same year is correlated and distinct from rebel or state activity in other years. To account for time a count variable recording the length of a conflict period is included in the statistical model.

One additional concern is that the datasets should be treated as rare events. The logit model is known to have problems estimating probabilities when the size of the sample is low. This problem is compounded when the number of events occurring is small relative to the sample size. When both problems are present logit significantly underestimates the probability of an event occurring which produces biased estimates—the rare event problem.¹⁴ According to Allison (2012) the problem is not necessarily the rarity of events but the number of positive events—that is to say the concern is not how rare the event is but how many observation of the even there are.¹⁵ It is suggested that a penalized maximum likelihood (PML) model is used when the number of observed events really is small.

¹³ This is due to how dyads in the original UCDP dataset have been broken up into shorter conflict periods that reflect changes in the government opponent being fought against, or resumption of fighting after long pauses in conflict. For more information on how the UCDP dyadic dataset has been modified please see Aronson, “Producing Rebel Military Capability: The Role of External Support,” 2015.

¹⁴ King & Zeng, “Logistic Regression in Rare Events,” 2001.

¹⁵ See Allison, “Logistic Regression for Rare Events,” 2012 available here: <<http://www.statisticalhorizons.com/logistic-regression-for-rare-events>>.

External support

Data on external support is based on the UCDP External Support Dataset which records purposeful support by states and non-state actors of state and non-state combatants.¹⁶ This data was supplemented with original research and information gathered from the UCDP database in order to create a list of all external support to both rebels and states from 1975 to 2013. Both proven and alleged support is recorded and marked accordingly. UCDP records the following types of support: access to military or intelligence infrastructure, weapons, materiel/logistics, training/expertise, funding, and intelligence. For each type of support the data records whether or not support was provided in a particular year and who provided the support. All of the original UCDP categories include distinct types of support except for the category recording access to military/intelligence infrastructure. This category includes both access to military infrastructure (e.g., use of military bases or facilities) and joint-operations.¹⁷ UCDP also records other forms of support examples of which include funding a radio station, providing political (verbal lobbying, etc.), or intermediating other types of support (e.g., facilitating the transfer of money or arms). These are excluded from the analysis because they either don't have a material impact (political support) or they are better understood as assisting support that did occur (facilitating the transfer of arms).

¹⁶ Support to rebels can also occur non-voluntarily. This occurs when a rebel establishes shelter in a weak or poorly controlled portion of a state. Often this type of support is facilitated by other rebel groups operating in ungoverned areas. The Taliban, for example, has found shelter in the neighboring FATA region of Pakistan. This territorial support was facilitated by the Taliban's Pakistani brothers the Tehrik-i-Taliban Pakistan and was not officially sanctioned by the government of Pakistan. For more discussion see: San-Akca, "Supporting Non-State Armed Groups (NAGs): A Resort to Illegality?" 2009; Salehyan, "No Shelter Here: Rebel Sanctuaries and International Conflict," 2008; Byman, "Passive Sponsors of Terrorism," 2005. This omission does not bias the study of purposive support but may bias findings on the impact of support—particularly the role played by external bases.

¹⁷ Future work will split this category into two: military cooperation and joint operations.

The original UCDP data includes all actors who were observed providing support to a state or rebel group. For states this is reasonable but for non-state actors this leads to the inclusion of problematic cases for the purpose of this analysis. An example serves to illustrate this point. In 2006 a group of seven Danish activists formed a company called Fighters+Lovers (F+L). The goal of the company was to sell T-shirts featuring the logo of the Colombian leftist rebel group FARC and send the profits to FARC in order to help fund its operations against the Colombian government. F+L succeeded and was able to send about \$5,000—most of which never made it to FARC—before they were arrested and sentenced in a Danish court in 2009. During this same time period estimates put FARC’s operating budget at around \$500 million to \$1 billion.¹⁸ In the best case scenario F+L’s support contributed to 1/1000th of a percent of FARC’s budget—likely a lot less. While F+L did provide support its support is insignificant.

It is also highly probable that many cases such as this, which didn’t receive as much media attention, are missed in the coding of external support. In order to create a meaningful sample I exclude all instances of support by civilian groups or organizations (including Diasporas). These types of support are likely to be both inconsequential and extremely difficult to model—their support isn’t driven by a strategic logic. I also exclude several types of groups that may be able to provide meaningful support but who are not groups that have a political agenda. These groups include village, tribal, and state-sponsored self-defense militias, unorganized sectarian actors (e.g., when the identified actor is an ethnic group instead of a particular political actor), and mercenary groups. In addition, support to terror groups

¹⁸ Hudson, *Colombia A Country Study*, 2010.

(groups who only killed civilians) was not included because the scope of the study is limited to support guerrilla combatants. A total of 164 cases of support (46 to states 118 to rebels) are excluded because of this criteria.

In addition, because the goal is to identify the type of support provided by *external* supporters I also filter out all actors involved in the current ongoing conflict. Conflicts can involve multiple rebel combatants but are unified based on the specific incompatibility that is being fought over (e.g., control of government by a specific ideology or ethnicity, secession of a state or territory, etc.). All actors not involved in a particular conflict are considered to be outside of that issue and are thus potential supporters—they may be keenly interested in the outcome of the conflict but are not participants in the specific dispute being fought over. Any group present in the conflict state but not involved in the same conflict is considered an external supporter. A total of 47 support years across 10 different conflicts are excluded. So, for example, Algeria is involved in a conflict with four different rebel groups (AIS, GIA, AQIM and MUJAO) over control of government. Even though not all rebel groups are active at the same time (e.g., GIA fought from 1993-2003, AQIM from 1999 to present) all four are considered to be internal to the conflict and are thus excluded.

These many specific types of external support are grouped into three ordered categories: troop support (the supporter's troops fighting on behalf of a combatant), military support (weapons, bases, use of military infrastructure, and intelligence), and materiel support (logistics, training, and money).¹⁹ These categories are chosen because of the different levels of commitment (cost, difficulty of transfer, and

¹⁹ See, Pettersson, "Pillars of Strength – External Support to Warring Parties," in Pettersson & Themnér eds., *States in Armed Conflict 2010*, 2010 for a description of the types of support.

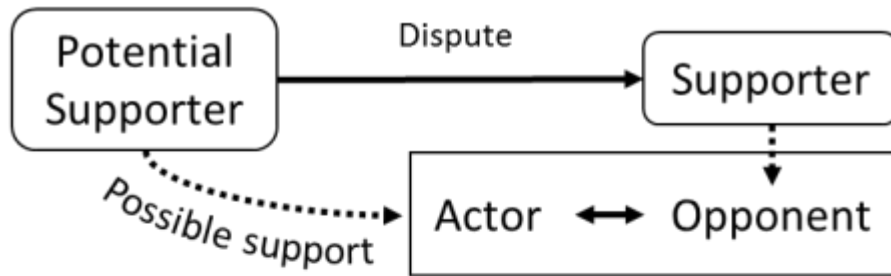
visibility) required by a potential supporter and the potential impact. Troop support is the most visible and costly form of support in terms of the potential to take casualties and the financial costs of maintain troops—and is also likely to have the largest impact on an intrastate conflict. Troops can dramatically change the balance of power but also put a supporter’s own forces at risk. Troops—in any meaningful numbers—are also highly visible. When they are landed it is clear who the supporter is. Military support directly increases the potency of a combatant by allowing it to field more armed soldiers or increasing the efficiency of existing troops. Material support enhances group capability but not in the direct manner that military support does. The main difference between weapon and material support is that one can be seen as improving military operations while the other is about supporting military operations. This also means that weapons support has higher potential for misuse should the supported actor be less than scrupulous.

This results in a total of 1,415 instances of materiel support by states and armed non-state actors with political goals (hereafter referred to as “non-state actor”) outside of the current conflict to another state or non-state actor between 1989 and 2009 (a total of 211 were excluded). Of this total, states provide support 1,202 times (707 times to other states and 495 times to non-state actors) while non-state actors provide support 213 times (19 times to states and 194 times to other non-state actors). The provision of support from an external actor (state or non-state actor) to a combatant (state or non-state actor) is referred to as a support transaction. A support transaction can further be identified by the category of support provided. An actor may provide more than one category of support to the same actor so the sum of the

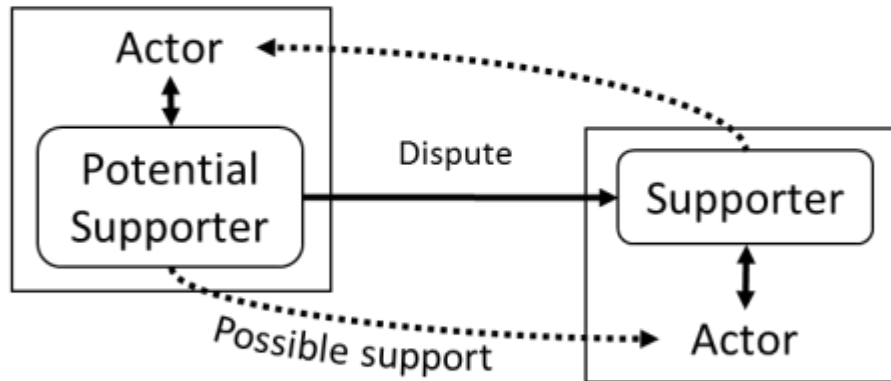
different types of support exceeds the total support transactions occurring, e.g., a supporter may provide troops, weapons, and money to the same actor, which counts as one support transaction and three different categories of support. States are fairly split in who they provide support to as well as the type of support provided. Rebels, by contrast, largely support other rebels and provide mostly military support (with materiel support coming in second). Figure I shows the various support relationships.

Figure I: Possible dispute relationships

Type 1: Dispute with the supporter

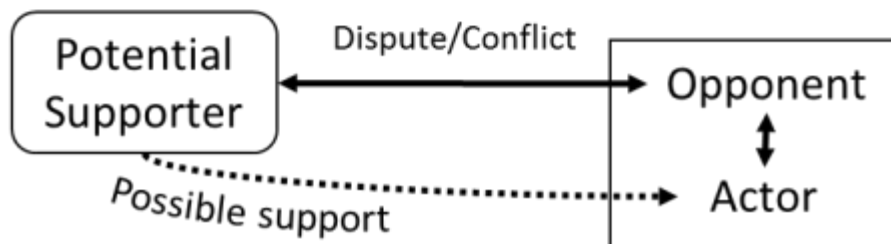


Type 2: Supporter provided aid to another actor fighting the potential supporter



Type 3: Dispute with opponent

Type 4: Direct conflict with opponent



Actor goals

In order to capture the goals of potential supporters in providing support I rely on four different measures: militarized disputes, communist identity, religious identity, and humanitarian interest. Militarized disputes indicate security interests in intervention. Communist and religious (co-)identity indicate ideological reasons for providing support. Humanitarian interest indicates a normative goal. The data used to construct these variables in addition to how they are constructed is presented below. I also discuss two additional variables—alliance and colonial ties—that are theoretically compelling reasons for intervention but which were found to have no significant impact. Additional study is warranted to further refine these measures and explore their potential impact.²⁰

Militarized disputes: Two variables are used to measure security concerns. The first identifies the military intensity of a dispute and is coded as an ordered categorical variable. A “1” means less than 25 battle-related fatalities, a “2” means 25-999 battle-related fatalities, and a “3” means greater than 1000 battle-related fatalities. The second identifies the type of dispute that occurred and is also coded as an ordered categorical variable. A “1” means a security dispute with the supporter of the. A “2” means that the opponent is supporting combatants against the potential supporter. A “3” means that the opponent and the supporter are currently experiencing a militarized interstate dispute of any type (this can only occur when a state supports a rebel against a state opponent). A “4” means direct fighting between

²⁰ It is possible, for example, that alliances or colonial ties would matter if the sample coverage was extended to include cases prior to 1989 and cases after 2009. French intervention in Mali in 2013, for example, may have been motivated by the colonial ties between France and Mali (Mali is coded as having a peaceful independence).

potential supporter and opponent. In any given year only the highest type of dispute is recorded. Disputes have both a type and intensity. Data on intensity and type of dispute was pulled from UCDP and Correlates of War. Database manipulation was conducted to determine when particular dispute relationships were present.

Ideological goals: Ideological goals are broken down into two main types: the promotion of communism and the expansion of religion. The presence of a communist or a religious identity is recorded for all actors and all potential state and non-state supporters. An ideological goal is present when both potential supporter and actor are communist or share the same religion. For states communism means the presence of a far-left one-party dictatorship. This coding was done yearly to account for the rise and fall of these regimes—a number of countries in Africa and beyond, for example, were communist until the official fall of the Soviet Union in 1991 while others, such as North Korea or Vietnam, remain communist to this day. Original coding was also conducted to identify all non-state actors that were leftist in their orientation. A non-state actor was identified as communist if the primary goal it espoused was socialist in orientation (as with states social democratic goals don't count). A large number of groups have both ethno-nationalist and leftist goals. For each of these cases coding judgments were made about the primary actor identity (in most cases this is an ethnic identity).

Humanitarian concerns: In order to identify humanitarian concerns I both look at the regime type of the potential supporter (non-state actors cannot have humanitarian concerns under this scheme) and the presence of one-sided violence in the conflict where the potential supporter is considering intervention. Both

combatants may engage in one-sided violence. This data is drawn from the UCDP One-sided Violence Dataset, which covers all yearly instances of violence by an actor (or coalition of actors) against civilians.²¹ The intensity of this violence was transformed into a two-point scale. A value of “1” was assigned if civilian fatalities in a year were between 25 and 999, and a value of “2” was assigned if fatalities exceeded 1000. Coalitions were broken into their component parts and civilian fatalities attributed to each actor divided evenly. A potential-supporter is expected to have humanitarian concerns if it is a democracy (above a 7 on the Polity scale) and the actor or its opponent is engaged in one-sided violence.

Formal alliances: Formal alliances between states are identified using the Correlates of War Formal Alliance data.²² This data records all formal alliances between states in the international system ending in 2012 (although if alliances are ongoing as of 2012 this is recorded). Alliances are classified into three different types based on the pledges made by member states: defense pact, neutrality/non-aggression, and entente. These three types are ordered in terms of the degree of commitment and cooperation demanded by the alliance terms. The more commitment and cooperation the greater the likelihood that an alliance tie may lead to external support. Defense pacts require both sides to come to each other’s aid should they be attacked by a third party. Although states in defense pacts are not required to assist each other in waging intrastate conflict—interstate alliances are about interstate conflict—it is presumed that this type of alliance would be most likely to lead to support because of the proactive military nature of the agreement. A defense pact is more likely to be signed if

²¹ Sundberg, “Revisiting One-sided Violence – A Global and Regional Analysis,” 2009.

²² Gibler, “International Military Alliances, 1648-2008,” 2008.

all involved parties care about the continued security of other members. Next in importance are neutrality and non-aggression pacts. This type of alliance should at least reduce the chance that two states will sponsor rebels against each other. Finally, the least impactful alliances are ententes, which are declarations of friendship or intent to consult should a crisis occur but make no formal demand on activity. An entente is the minimum form of alliance that implies cooperative political activity between two states

One possible extension of the alliance logic is to also look at alliances with a supporter that is already involved in the conflict. For example, if state X and state Y are allies (of any type) and state Y is providing support to a combatant in a conflict the alliance ties between X and Y may drive X to also become involved. In this case X, because of its alliance with Y would also provide support to the combatant. It is also possible that this type of alliance relationship enables the provision of support from actors that may otherwise have limited potential to do so. It can be argued, for example, that the involvement by a variety of European nations (e.g., Poland) as supporters of Afghanistan in the current Afghan Civil War was driven by alliance ties with the United States. Poland, a direct troop supporter, was not only incited by its alliance with the US to participate as a supporter but enabled as well (the US provided the logistical framework that allowed Polish military participation). It is not clear if this is a wider phenomenon that drives the provision of support. In future work I will test these additional propositions.

Colonial history: Colonial history between states is identified based on the Colonial History Dataset.²³ This dataset records dyadic colonial dependencies between two states as well as the manner in which a state became independent. Colonial history can either predict friendly or hostile relations depending on the manner of separation. A non-violent separation is likely to indicate friendly relations. For example Mali was under French colonial rule until 1960 when it peacefully gained independence. Mali and France have had good relations since and France even intervened in support of Mali to help combat Islamist rebels threatening Mali's government. If, on the other hand, independence is highly violent the two countries are unlikely to be on friendly terms and may even be hostile. In 1975 the rebel group FRELIMO won independence for Mozambique from Portugal in 1975 following a bloody 13 year war. Portugal could plausibly be counted as a potential supporter of Renamo (the right-wing rebel group battling the new FRELIMO-led government) from 1975 on.

Costs and considerations

The three costs/considerations I account for are: the possibility that the opponent of an actor is able to retaliate through military action, the likelihood that support will be misused by the supporter, and the extent to which a supporter needs support. It is possible to proxy these issues with a variety of variables. Prior work, for example, has included a group-level indicator of organization capacity to indicate the

²³ Hensel, "ICOW Colonial History Dataset, version 0.4," 2009.

ability of a rebel group to effectively use support.²⁴ Given the requirement to get comprehensive yearly data I make use of several proxy indicators instead.

In order to identify the costs of retribution—as well as changes in relative power between state and rebel as discussed below—I use yearly force data from Aronson (2015a).²⁵ This dataset records the military forces of all combatants—states and rebels—involved in guerrilla warfare between 1975 and 2012. This data is used to measure the ability of all actors involved in conflict to engage in military retribution to deter the provision of future support. Because many potential state supporters were never involved in combat I supplement this data with information on composite index of national capabilities score pulled from the Correlates of War. This allows me to provide estimates of the capabilities of all actors except non-state actors that did not engage in fighting against a state.

There are two other indicators of increased costs that could be tested as well in future work. The measure of retributive capacity used—force size—is a good proxy of a conventional response but not a perfect measure of an asymmetric response. Opponents who wish to take revenge—or attempt to deter future support—may also use unconventional tactics. The two unconventional tactics include: terror attacks against the supporter’s soft targets (in the supporter’s area of operations or against overseas assets such as an embassy) and the support of opposition groups against the supporter itself. The more vulnerable a potential supporter is to these two types of attacks (countries with discriminated ethnic groups, rebels in locations with many potentially competing rebel groups) the less likely they are to provide support.

²⁴ Salehyan et al., “Explaining External Support for Insurgent Groups,” 2011.

²⁵ Aronson, “Producing Rebel Military Capability: The Role of External Support,” 2015.

Further data collection and analysis will allow me to sort out the impact of these variables.

Data on state ethnicity—as a proxy for the ability of a potential supporter to engage in oversight and control over an actor—is derived from the EPR-ETH dataset.²⁶ This dataset provides information about all politically relevant ethnic groups and their access to state power 1945 and 2009. A state is coded as ethno-nationalist when a particular ethnic group has monopoly on, or dominant control of, state power. These classifications differ from normal control of state power (junior or senior partnership) in that monopoly and dominant control also means that all other ethnic groups are purposefully excluded from power—one group has power at the expense of others and seeks to keep it. In order to identify rebel ethnicity I rely on an updated version of the ACD2EPR dataset.²⁷ This data records all of the ethnic groups that a rebel makes a claims to politically represent or fight on behalf of, and that were recruited from in order to fill rebel ranks.

This data only covers combatants so supplemental research was conducted to identify the ethnic connections of all non-state actors that could serve as potential supporters. Non-state actors were flagged as having an ethnic identity when the group espoused ethno-nationalist goals. In addition ethnic “families” were coded to the extent it was possible to determine that various ethnic groups shared strong connections across more than one state (Arabs, for example, are present in a variety of countries). Additionally, it is possible for a rebel group to have more than one ethnic identity. Insurgents in Chechnya, for example, fight on behalf of Chechens—

²⁶ Cederman et al., “Why do ethnic groups rebel? New data and analysis,” 2010.

²⁷ Wucherpfennig, “Ethnicity, the State and the Duration of Civil War,” 2012.

but also Ingush, Karachays, and a variety of other smaller ethnic groups present in the North Caucasus. Co-ethnicity was coded as present when a potential supporter and a combatant shared the same ethnicity.

Finally, in order to identify when support is likely to impact a conflict I rely on two variables. The first variable is the capability of the actor in the conflict. This is measured using force size from Aronson (2014b) discussed above. In addition I also track sudden shifts in power measured by significant changes in force size for both combatants in a dyad (state and rebel). A significant and adverse change in force size is likely to alter the course of the conflict—either increasing or reducing the chance that the rebel will be able to achieve a successful outcome. If force size changes by more than 5,000 soldiers between the prior and current year this is considered a significant increase in forces. In order to better contextualize changes in the balance of power future work will include several modifications to these variables. First, instead of using a hard-coded measure of 5,000 soldiers I will use a relative measure (e.g., a 25% increase in forces). In addition to indicators for both the rebel and the state I will construct and test an indicator for the balance of power (rebel force size over rebel plus state force size—significant shifts in this indicator indicate a sudden shift in power and hence a greater need for support).

Control variables

Use of a multilevel model (described below) allows unobserved heterogeneity to be accounted for by location and by conflict period. This is likely to account for some of the concern about confounding or omitted variables. Certain conflicts or actors, for example, may have different baselines in the type of external involvement.

A few concerns remain that are controlled for. There are often multiple rebel groups fighting against the same state in a conflict—the activity of one rebel group is likely to impact others in the same conflict. To account for the interdependency of dyads in a conflict I also include a count of the number of other rebel groups present in the conflict. In addition the duration of the conflict period in years is included to account for time. Depending on the model several controls at the supporter level are also including shared regime type (co-democracy or co-dictatorship), and whether or not the state or the supporter is a state. Finally, because prior support is likely to influence future support I also include a variable accounting for prior support to the actor (by other supporters and by the current supporter).

Lootable resources have also been identified as a key source of combatant financing²⁸ and as such may influence the provision of support. Gems, diamonds and drugs have been identified in the existing literature as having very low barriers to entry and high profitability—both essential characteristics of lootable resources. The location, type, and quantity of gems, diamonds, and drugs were derived from several datasets assembled by Lujala at the Norwegian University of Science and Technology.²⁹ Only secondary deposits (deposits near the surface that can be mined using artisanal techniques) for precious gems and diamonds were recorded. Drugs recorded includes: opium, cocoa, and cannabis. Dates of cultivation and first extraction were also recorded. If an actor is operating in an area where a lootable resources is located and in a year following first discovery it is recorded as having

²⁸ Collier & Hoeffler, "Greed and Grievance in Civil War," 2004; Collier & Hoeffler, "On Economic Causes of Civil War," 1998.

²⁹ Lujala, "The Spoils of Nature," 2010.

access to a particular lootable resource. All types of lootable resources were tried in the model but only gemstones had a significant effect.

Results

Discussion of the results will be broken into four sections. The first section will examine the role of goals in determining the occurrence of support. The second section will look at the variables influencing the costs and concerns of providing support. A third section will go over the control variables. Table I below presents the full results.

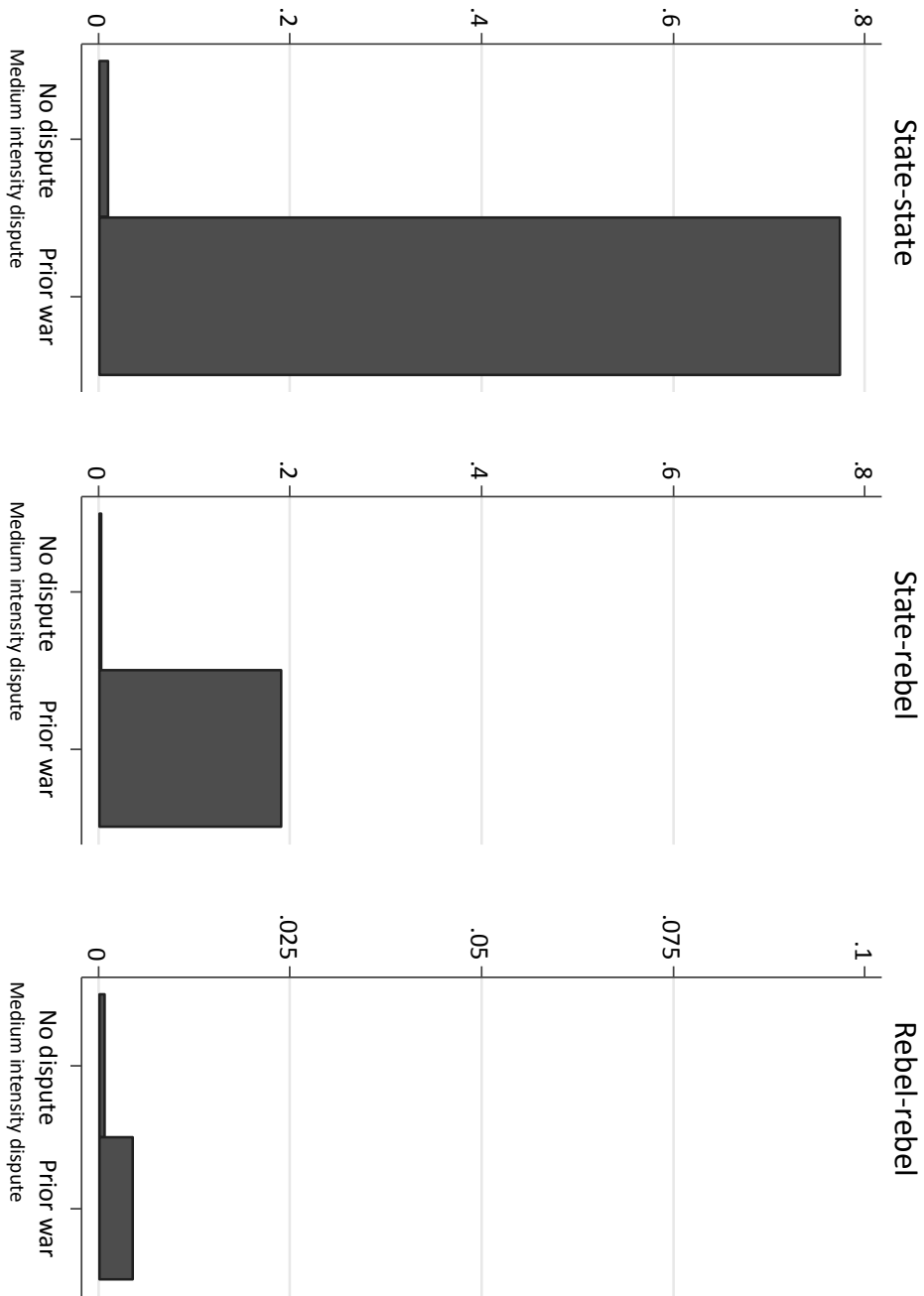
Table I: Predictors of the occurrence of support

	(1) State support of states	(2) State support of rebels	(3) Non-state support of rebels
Actor: Dispute type	0.0557 (0.299)	-1.666 ⁺ (1.027)	
Actor: Dispute intensity	-0.0563 (0.474)	0.607 (0.771)	
Opponent: Dispute type	1.226 ^{***} (0.345)	0.986 ^{***} (0.190)	0.0854 (0.0849)
Opponent: Dispute intensity	0.470 ⁺ (0.300)	0.239 (0.446)	0.715 ^{***} (0.210)
Actor: Co-communist	2.095 ^{***} (0.536)		1.548 ^{***} (0.361)
Opponent: Co-communist	-0.514 (0.813)		
Actor: Co-religious	2.209 ^{***} (0.466)	2.272 ^{***} (0.869)	3.831 ^{***} (0.791)
Opponent: Co-religious	-0.290 (0.351)	0.117 (0.379)	-0.297 (1.111)
Actor: one-sided violence (lag)	0.232 (0.364)	0.184 (0.204)	
Potential: Democracy	-0.305 (0.415)	-0.568 (0.455)	
Potential: Democracy * Actor: one-sided violence (lag)	-0.284 (0.416)	-0.444 ⁺ (0.232)	
Opponent: one-sided violence (lag)	-0.646 (0.524)	0.271 ⁺ (0.177)	
Potential: Democracy * Opponent: one-sided violence (lag)	1.064 [*] (0.607)	-1.266 ^{***} (0.472)	
Other support: troops (lag)	-0.386 (1.103)	0.907 (0.722)	3.271 ^{***} (0.589)
Other support: military (lag)	-0.504 (0.472)	0.785 ⁺ (0.608)	0.0248 (0.809)
Other support: economic (lag)	0.193 (0.715)	-0.751 (0.891)	-0.131 (1.000)
Potential: CNC score	23.37 ^{***} (3.734)	-0.654 (2.773)	
Opponent: force size	0.0852 (0.0887)	0.260 (0.224)	0.262 (0.306)
Actor: Co-ethnic			1.105 ^{**} (0.549)
Opponent: Co-ethnic		0.359 (1.055)	-0.164 (0.998)
Actor: force size		0.332 ^{***} (0.0932)	-0.100 (0.107)
Actor: force size (total)	0.492 ^{***} (0.156)		
Actor: force size (total) * Actor: force size (total)	-0.0436 ^{***} (0.0102)		
Actor: large force decrease		0.672 ^{***} (0.123)	
Actor: large force increase			0.579 ^{***} (0.221)
Opponent: force size (total)		-0.134 (0.240)	-0.511 ⁺ (0.265)
Opponent: large force increase	0.592 ^{***} (0.191)		
Alluvial gems		-0.763 ⁺ (0.522)	
Variance: location	1.370 ^{***} (0.434)	0.781 ^{**} (0.371)	3.192 ^{**} (1.443)
Variance: conflict period	0.366 (0.297)	1.547 ^{***} (0.434)	3.025 ^{**} (1.194)
Observations	15533	14989	22717

Control variables not shown; Robust standard errors in parentheses; ⁺ $p < 0.20$, ^{*} $p < 0.10$, ^{**} $p < 0.05$, ^{***} $p < 0.01$

Both the type and intensity of disputes with an actor's opponents increases the probability that a potential supporter will provide support. For states the main factor is the type of dispute that is present. The intensity of the dispute (when controlling for type) only has a moderate impact and only for state support to other states. This strongly confirms H1a. By contrast, non-state provision of support to rebel groups is mostly influenced by the intensity of the dispute and not the type of the dispute. The greater the violence between a non-state potential supporter and a rebel, the more likely it is that support will be provided to the state opponent. This also supports H1a. Turning to disputes with the actor that may receive support, the results suggest no impact on the probability that a state will provide support to another state. This means that, controlling for all the other variables in the model, having a dispute does not deter the pursuit of other goals. There was not enough variation in rebel disputes with other rebels in order to include it in the model (i.e., in no cases when two rebels had a dispute was support provided). This does suggest that, as measured, the presence of disputes does deter rebels from supporting each other. The presence of disputes between a potential state supporter and a rebel, however, strongly decreases the probability of support for a rebel. Overall disputes have no impact on state support for other states but strongly reduces the probability of state support for rebels. Figure II shows the impact of disputes on the provision of support.

Figure II: The impact of disputes with an opponent



Ideological goals have strong results across the board as predictors of support. If the potential supporter and the actor share a religious identity—regardless of the actual religious identity, although as the data shows Sunni and Shia Islam are the main religious identities of actors—support is far more likely to occur. The limited occurrence of communist states and leftist-groups post-1989 limits the testing that can be done using this variable. When available to use in the model there is strong support that communist states provide support to other communist states and that leftist non-state actors provide support to leftist rebel groups. These findings strongly confirm hypothesis H1b. The change in the probability of support is especially large for co-religious rebels. This suggests that rebels form networks of mutual support in order to promote particular religious goals. Although the sign on the coefficient for sharing religion with the opponent is negative for state support of states and non-state support of rebels they are not statistically significant at any reasonable p-value. It appears that shared religion does not deter a potential supporter from providing support in order to pursue another goal that it may find more important (such as a military dispute). Similarly, a shared communist identity does not deter a state from providing support to another state in order to pursue another goal.

The last variable capturing a goal—stopping one-sided violence against civilians—finds limited support. In order to interpret this variable it is necessary to compute the linear combination and compare the probability of support for democracies and non-democracies when low- and high-levels of violence against civilians is present. This is computed for both the actor that may receive support and the opponent who a democracy may wish to intervene against. These results are

available in Table 3 below. There is support using a one-tailed test (p-value of 0.06) that democracies are more likely to intervene against rebels engaged in one-sided violence than non-democracies. This provides some support for H1c. States, however, are very unlikely to intervene against other states that are engaged in one-sided violence. The magnitude of the effect is large and highly significant. This presents evidence against H1c. Possible explanations for this result include the possibility that states engaged in large amounts of one-sided violence deter democracies from supporting rebels against them since engaging in one-sided violence may indicate increased resolve to win and thus the potential for a costly quagmire.³⁰ Although the coefficient for potential state supporters of states engaged in one-sided violence is negative it is insignificant (one-tailed p-value of 0.15) suggesting limited support for H1c. States are significantly less likely to provide support to rebels who engage in one-sided violence. This provides support for H1c and suggests that, across both state and rebel combatants, democracies are less likely to provide support when the actor has engaged in violence against civilians. Table II shows the linear combinations of the various variables.

³⁰ Another possibility is that the sample of democracies engaged in humanitarian activity is bifurcated with “militant democracies” such as the US and the United Kingdom pursuing regimes engaged in anti-civilian violence with the majority of democracies—as defined by Polity—do not. Further investigation is warranted.

Table II: Linear combinations

	(1) State support of states	(2) State support of rebels	(3) Non-state support of rebels
Force size: low to medium	-0.644** (0.273)		
Force size: medium to high	-0.847*** (0.215)		
Force size: low to high	-1.491*** (0.472)		
Actor: dispute low	-0.000613 (0.275)	-1.058** (0.418)	
Actor: dispute low to high	0.0544 (0.521)	-3.782** (1.739)	
Opponent: dispute low	1.695*** (0.291)	1.225*** (0.272)	0.801*** (0.212)
Opponent: dispute low to high	3.677*** (1.034)	2.957*** (0.569)	0.256 (0.255)
Duration (1 year)	-0.00144 (0.0222)	-0.0407 (0.0494)	0.0905+ (0.0565)
Duration (3 years)	-0.00303 (0.0644)	-0.120 (0.141)	0.258+ (0.161)
Duration (6 years)	-0.00221 (0.122)	-0.236 (0.263)	0.475+ (0.294)
Actor: humanitarian (democracy)	-0.873 (0.835)	-1.456*** (0.476)	
Opponent: humanitarian (democracy)	1.822+ (1.151)	-3.099*** (0.805)	
Observations	15533	14989	22717

Standard errors in parentheses

+ $p < 0.20$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Turning now to variables that could potentially deter support we see mixed support. States are more likely to support other states when they (the potential) have high capabilities (proxied by the combined national capabilities score). No similar finding is present for states supporting rebels. Neither the capability score of the potential supporter nor the total force size (the standing army) of the opponent state deters the provision of support. Together this provides mixed support for H2a. For potential non-state supporters the total force size of the opponent to the actor they may support is significant and negative. In other words, the larger the force size of the state opponent the less likely it is that a non-state potential supporter will provide support. One reason for this is that large states might be able to better use their forces to impose costs on potential non-state supporters as opposed to state supporters. This partially supports H2a.

The variable proxying the likelihood that an actor will misuse support, co-ethnicity, perform as expected. Co-ethnicity between external non-state actor and rebel is a strong indicator of the occurrence of support. Unfortunately data limitations—limited variation of the variable—prevent testing the impact of co-ethnicity on state support to rebels. Together there is some support for H2b—when an external actor believes that support is less likely to be misused support is more likely to occur.

Finally, several variables are used to proxy for the utility of support. For all actors and opponents the yearly as well as total force size is tracked, which allows us to identify the potential capability of both sides³¹. In addition, because of the dynamic

³¹ Because of the nature of asymmetric warfare a strict comparison of rebel to state force size—even when taking into account the forces deployed to particular regions—is not appropriate. Instead the

nature of conflict and the potential impact of significant conflict outcomes, a dummy variable capturing large changes in force size is also included. These variables across the board suggest that external actors are interested in supporting a combatant only when they believe their support will make a difference. When support is likely to make a difference is dependent on the type of actor—state or non-state—being supported. For states supporting other states it is the total force size of the actor that matters. As with democratic support and one-sided violence it is necessary to compute the full interactions in order to ascertain the impact of the variables. Across the ranges of force size that actually occur, the larger the total force size the less likely a state is to get support with the decrease in chance of support growing as force size increases (moving from low to median force size produces a smaller decrease than moving from median to high force size). This supports H2c. States are also more likely to support states when they face a rapidly growing opponent. This suggests that states provide support to other states that are weak or facing strong opponents.

Force size is also highly impactful in determining state support to rebel groups. This impact is linear—the larger the rebel's force size the greater the chance of a state providing support. There is no evidence that the size of rebel forces compared to other rebels in a conflict matter, i.e., states do not support the strongest actor within a conflict even if that actor, in absolute terms, is weak. In contrast to state support to other states, states support rebels that have seen a large decrease in their force size. This suggests that states support rebels who are strong but becoming weaker because this is when support is likely to have the greatest impact. This further

force sizes are treated additively. Larger state forces allow more effective counterinsurgency operations (better saturation of people and terrain and higher density of forces involved in operations) while larger rebel forces allow a greater volume of attacks.

supports H2C. Finally, rebels support other rebels that are growing—this may reflect the desire to form strong alliances (there was no evidence that non-state actors support rebels that have recently lost forces). This does not provide evidence in favor of H2C and further suggests that the impact of force size may differ based on whether the supporter is a state or non-state actor.

Conclusion

This paper presented and tested a theory of why external supporters—both state and non-state—might have a compelling reason to provide support to combatants. The provision of support, however, is rife with costs. Before pursuing particular goals, then, external actors take into account potential costs such as the ability of the opponent to retaliate or the ability to oversee how support is used. Together goals and costs were found to strongly impact who provided support as well as the target and timing of support. The findings presented here contribute to our understanding of when and why support is provided and provide a strong framework for future research. A large number of extensions were presented. Interesting differences in the type of the support relation were also identified. States, for example, were less likely to provide support to rebels that they had a dispute with than states. Similarly, force size had a different impact depending on the type of relationship: large states deter support while large rebels attract it. Finally, significant new data was presented—both in identifying potential non-state supporters and in characterizing the goals and identity of all involved actors.

Ross (2005) argues that one largely unexplored mechanism predicting external support is the presence of “booty futures”.³² This mechanism is analogous to a startup company raising capital by holding an initial public offering of its stocks (IPO). Investors—in this case external actors—agree to provide money to a rebel group at the beginning of a conflict in exchange for a share of the natural resources captured by the rebel during the course of fighting. It is plausible that this mechanism could also work for states looking to raise funds. Ross includes several case studies of African rebel groups in order to explore the plausibility of the theory but as of yet no statistical testing of this mechanism as a goal for a potential supporter exists. Ross frames this form of exchange as occurring prior to the onset of conflict but it is likely that the transaction will occur during conflict—at least in the initial stages—as well. Indeed the cases covered by Ross are present in the data used on external support (assistance from Elf-Aquitane to the Cobra militia in 1997 that might have occurred in exchange for oil futures; Liberia’s support to the RUF from 1997-2000; and support from Angola, Namibia, and Zimbabwe to the DRC between 1998 and 2001). Identifying the conditions under which combatants sell future access to natural resources—and to whom they sell access to—is an important research consideration.

In addition, in this paper I show that many of the same considerations that have been shown to drive the provision of support—supporter goals and cost considerations—also influence the type of support provided. Supporters are strategic in their support decisions. The more important the goals being pursued the more substantial the support provided. But this is heavily attenuated by concerns over the ramifications of providing support. When the opponent is able to make the provision

³² Ross, “Booty Futures” 2005.

of support costly, less consequential—and visible—types of support are provided. When there is limited ability to oversee how support is used supporters respond by providing support that has less consequence if it is misused. Finally, the type of support provided is attenuated to the ability of the actor to use it productively. These findings represent an advance in our understanding of the dynamics of external support. These findings will hopefully provide both a framework for future work on external support. This work also represents baseline of results by which future theories about the type of support provided can be compared against.

Chapter 2: Arsenal of Rebellion: External Material Support and Rebel Capability

Introduction

From its early successes in Tunisia, the Arab Spring swept to Syria where a civil uprising in January 2011 sought to bring down another corrupt and dictatorial regime. This time revolution was not so easy. By November 2011 the country had fallen into civil war with nearly 1,000 deaths every month. Faced with this mounting humanitarian disaster and the opportunity to put to rest a regime openly hostile to U.S. interests, President Obama faced a difficult decision: should the nascent Syrian rebels be given military support? In large part, this decision rested on whether or not U.S. material assistance to the rebel groups would help them defeat the Syrian regime—or at least secure a tolerable peace. Although the U.S. had a long history of intervention in foreign intrastate conflicts significant uncertainties about external support remained. These uncertainties included: (a) whether or not supported groups would be able to make effective use of external material aid, (b) if support would enable the rebels to coalesce into a fighting force that could resist regime attacks, and (c) what types of aid would be the most effective.

To help make this decision the CIA was tasked with analyzing the effectiveness of prior U.S. aid to insurgents. The conclusion was grim: in almost all

reviewed cases support to insurgents had “minimal impact on the long-term outcome of a conflict”—especially when U.S. forces were not on the ground.³³ The report had immediate impact. Instead of intervening in Syria the U.S. decided not to provide assistance. Even when help was provided—as a result of the Syrian regime's use of chemical weapons—it was provided in a very limited fashion. The results of this report are surprising given the key role that proxy warfare played during the Cold War. Both the Soviet and the United States consistently backed ideologically similar regimes and rebels throughout the entire conflict.³⁴ In addition, external support is a common occurrence in internal conflicts with more than half experiencing biased external involvement of some kind. Given the continued use of external support it is difficult to believe that support only has a “minimal impact.” In fact, this internal government report stands in contrast to what can be thought of as the conventional academic wisdom on the impact of external support to rebels. Jeffrey Record says it best: “If an insurgency has access to external assistance, such assistance can alter the insurgent-government power ratio even to the point where the insurgency becomes the stronger side”.³⁵ A number of other studies have also identified a link between external support and important conflict dynamics such as duration.

This leaves a clear contradiction between policy and academic circles:
external support is not seen as an effective policy instrument and yet academic work

³³ Mazzetti, "C.I.A. Study of Covert Aid Fueled Skepticism About Helping Syrian Rebels," 2014. This report follows on revelations of another recent failed support relationship: the U.S. attempt to build a secular counterforce to Islamist militias in Somali. This attempt is viewed to have failed. See, for example, Mazzetti, "Efforts by CIA Fail in Somalia, Officials Charge," 2006 <<http://www.nytimes.com/2006/06/08/world/africa/08intel.html>>.

³⁴ By itself the United States accounted for 11% of all state support to rebel groups that occurred between 1975 and 1991 (the U.S. was involved in 113 of the 1,031 total “years” of support). The only year during this time that the U.S. was not actively backing a rebel group was 1976.

³⁵ Record, “External Assistance: Enabler of Rebel Success,” 2006, 36.

finds that support likely does enable rebels, on average, to fight longer. What explains this disparity? More specifically, under what conditions does external support enable insurgents to achieve more favorable outcomes in an intrastate conflict—if at all?

We think, in general, that material aid can enable a weaker combatant to close the material power advantage. All things equal, then, external support *should* help rebels do better in a conflict. This general statement is likely to be highly qualified, especially considering that many different types of support are available. In addition, external supporters are usually not interested in making a marginal impact on a conflict—they want to provide types of aid that will enable their supported party to secure favorable concessions or, at a minimum, avoid defeat. Supporters interested in making a conflict costly (e.g., supporting a rebel fighting a rival) may just be interested in marginal gains. The goal here is to better understand how different types of aid—from different types of supporters—influence the conflict trajectories of rebels.

Existing literature

What explains this significant disparity in findings? The CIA was able to convince the President of the United States that military intervention on behalf of insurgents is ineffective and yet academic work has largely argued that support has a positive impact. It is possible that the CIA report looked at just a limited set of cases and thus ignored the broader history of external intervention that academic work has examined. A more convincing explanation is that academic and policy scholarship on external support have examined different dependent variables. Academic work, for example, has largely focused on the relationship between external support and the

duration of internal conflict.³⁶ Similarly, although there are several papers dissecting the impact of external support to states³⁷, support to rebel groups has mostly been included as a control variable rather than the focus of study.³⁸ Later work has pointed to the key role played by material aid to insurgents as a means of reducing the power imbalance between combatants³⁹ but we don't know when and why it works.

One potential explanation for the finding that external support “works” is that supporters—whoever they are—act as veto players that make it harder to settle conflicts⁴⁰ or add to the uncertainty about the balance of capabilities and thus cause renewed fighting—and longer conflicts.⁴¹ In other words, support may make settlement more difficult but it doesn't enable rebels to get favorable concessions. This explanation is not, however, entirely convincing. Support must still enable insurgents to keep fighting and inflicting costs against the state in order for negotiations to occur and be vetoed. To figure out when and why support works it is necessary to venture into recent work on trans-national ethnic kin and Diasporas. Both types of supporters provide very specific types of aid—money, recruits, and shelter—which has been found to assist the ability of rebel groups to survive and

³⁶ Brandt, “When and How the Fighting Stops,” 2008; Balch-Lindsay & Enterline, “Killing Time: The World Politics of Civil War Duration, 1820-1992,” 2000; Elbadawi & Sambanis, “External Interventions and the Duration of Civil Wars,” 2000.

³⁷ Sullivan & Karreth, “The Conditional Impact of Military Intervention on Internal Armed Conflict Outcomes,” 2014; Kalyvas & Balcells, “International System and Technologies of Rebellion,” 2010.

³⁸ See, for example, Lyall & Wilson, “Rage Against the Machines,” 2009.

³⁹ Salehyan et al., “Explaining External Support for Insurgent Groups,” 2011; Lyall, “Do Democracies Make Inferior Counterinsurgents,” 2010; Gent, “Going in When it Counts,” 2008; Record, *Beating Goliath*, 2007.

⁴⁰ Cunningham, “Blocking Resolution: How External States can Prolong Civil Wars,” 2010.

⁴¹ Shirkey, “When and How Many,” 2012.

maintain their forces despite losses.⁴² These findings suggest that external support is effective when it provides specific capabilities needed for rebellion such as men, money, and shelter.

One key problem with these studies—at least as it relates to identifying the conditions under which state support to rebels is likely to be effective—is that they select on groups with strong ethnic constituencies. We know from recent work that a group’s means of organizing its forces matter. Rebels need to create an organizational structure that matches the conflict conditions under which they are fighting—centralized organizations, for example, find it difficult to operate effectively without territorial control.⁴³ Non-institutionalized command and control leads to counterproductive behavior by lower-level commanders.⁴⁴ Strong rebel institutions—especially those heavily integrated with the population where fighting is occurring—are also better able to use resources productively.⁴⁵ These findings echo concern about providing support in the case of Syria. The multitude of rebel organizations—many with tenuous command and control structures—have had difficulty coordinating their forces and productively using resources that they do have, including substantial regime defections. Similarly, existing research is strongly supportive of the link between the availability of arms and the ability to engage in

⁴² See, for example, Cederman et al., “Transborder Ethnic Kin and Civil War,” 2013; Miller & Ritter, “Bad Blood? Migrant Networks and the Onset of Civil War,” 2012; Salehyan, “Transnational Rebels,” 2007.

⁴³ Sinno, *Organizations at War*, 2008.

⁴⁴ Abrahms & Potter, “Explaining Terrorism: Leadership Deficits and Militant Group Tactics,” 2015; Schneider, “Incentives to Kill,” 2010. Humphreys & Weinstein, “Handling and Manhandling Civilians in Civil War,” 2006.

⁴⁵ Staniland, *Networks of Rebellion*, 2014.

war. If military arms are hard to acquire—or absent—it is extremely difficult for an armed group to sustain meaningful violence.⁴⁶

In summary, the existing literature suggest that the timing of support, the organizational coherence of a combatant, and the technology of conflict all impact underlying probability of rebel victory and the conditions under which external support is likely to make a difference. Underlying many of these frameworks (including literature on the provision and impact of support) is an assumption that the balance of capabilities matters to a conflict. How and when this is true, however, are unclear. Capabilities can encompass many different things: a group’s ability to resist attacks, inflict significant damage, rebuild following losses, mobilize a large base of political support, etc. Different types of support are likely to impact measures of capability in different ways, and various capabilities are not likely to have the same impact on a rebel’s chance of doing well across all conflicts. Before understanding when and why external support is likely to be effective it is first necessary to theorize about the type of capabilities required for a rebel to do well and then to identify what types of support can build these capabilities. This work seeks to do exactly that.

External support and rebel ability to produce concessions

Academic research backs up this basic relationship. Civil wars featuring external support to rebels are more like to end in rebel victory, and tend to be longer.⁴⁷ One key reason why external support makes conflicts last longer is that

⁴⁶ See, for example, Craft & Smaldone, “The Arms Trade and the Incidence of Political Violence in Sub-Saharan Africa, 1967–97,” 2002.

⁴⁷ Wood & Kathman, “Too Much of a Bad Thing? Civilian Victimization and Bargaining in Civil War,” 2013; Salehyan et al., “Explaining External Support for Insurgent Groups,” 2011; Cunningham et al., “It Takes Two: A Dyadic Analysis of Civil War Duration and Outcome,” 2009; Lyall & Wilson, “Rage

supporters often provide external bases (or areas where a rebel can shelter) that are beyond the reach of the current conflict.⁴⁸ These protected areas allow even weak rebels to maintain a low-level conflict for a prolonged period of time. Although this type of capability has been shown to be extremely important to explaining the dynamics of irregular conflict, much less attention has been focused on how external support influences rebel capability (such as their military performance) instead of providing a substitute capability (e.g., shelter). In order to identify the impact of support it is necessary to first identify what is required for a rebel to do well in a conflict and then to theorize about how support influences these capabilities.

Unlike the large amount of work on military capabilities in the study of interstate warfare and conventional deterrence, identifying reliable indicators of combatant capability in irregular warfare has proven difficult.⁴⁹ When attempts have been made to directly measure rebel capability it has been as a dyadic measure of the estimated balance of state to rebel forces.⁵⁰ Due to the nature of asymmetric and low-level conventional warfare—high use of hit-and-run guerrilla attacks, a lack of decisive battles—state standing army size relative to rebel forces is not likely to be a

against the Machines: Explaining Outcomes in Counterinsurgency Wars,” 2009; Fearon & Laitin, “Civil War Termination,” 2008; Gleditsch, “Transnational Dimensions of Civil War,” 2007; Regan & Aydin, “Diplomacy and Other Forms of Intervention in Civil Wars,” 2006; Collier et al., “Greed and Grievance in Civil War,” 2004; Balch-Lindsay & Enterline, “Killing Time: The World Politics of Civil War Duration, 1820-1992,” 2000.

⁴⁸ See, for example, Salehyan, “Transnational Rebels: Neighboring States as Sanctuary for Rebel Groups,” 2007.

⁴⁹ The Correlates of War Project, for example, has identified robust indicators of state military capability in interstate war. For use of relative capabilities see: Huth, *Extended Deterrence and the Prevention of War*, 1988; Mearsheimer, *Conventional Deterrence*, 1983. See also Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle*, 2006 for a discussion of the interaction between material capability and how forces are employed on the battlefield.

⁵⁰ See, for example, the Non-State Actor Data assembled by Cunningham, Gleditsch, and Salehyan.

good predictor of outcomes⁵¹. Offensively, large standing armies rarely become fully involved in localized insurgencies due to limited state power projection capability. Defensively, state armies are engaged piecemeal by rebel guerrilla attacks. The more forces a rebel has, the more attacks it will be able to conduct and the larger those attacks will be. Successful hit-and-run attacks also require effective rebel forces—attacks are only useful as a tool of coercion if they inflict damage. Better measures of rebel and state military capability—localized to conflicts, changing over time, and capturing the ability to effectively conduct attacks—are needed if we are to identify how external support “works”.⁵²

The role of rebel “defense” has been given greater theoretical and empirical treatment. Early discussion of rebel access to shelter has largely focused on their role in building rural rebellion. Gurr maintains that “dissidents who control base areas are better able to conduct protracted insurgencies than those who do not.”⁵³ What accounts for the utility of base areas? Gurr suggests that bases are important because they facilitate the maintenance and construction of military forces: bases “provide food, refuge, and an area in which military equipment may be manufactured” and where training can occur.⁵⁴ More recent work has highlighted the importance of external bases⁵⁵ as well as the role that internal territorial control plays⁵⁶. Thus, in

⁵¹ See, among others, Lyall & Wilson, “Rage Against the Machines,” 2009.

⁵² In addition capabilities are likely to impact different outcomes to insurgency in different ways. These competing outcomes must be accounted for statistically. For recent work looking at competing outcomes to conflict see: Wood & Kathman, “Too Much of a Bad Thing? Civilian Victimization and Bargaining in Civil War,” 2014.

⁵³ Gurr, *Why Men Rebel*, 1970, 298.

⁵⁴ Gurr, *Why Men Rebel*, 1970, 267-9.

⁵⁵ See, for example, Salehyan, *Rebels Without Borders: Transnational Insurgencies in World Politics*, 2009.

⁵⁶ See, for example, Cunningham et al., “It Takes Two: A Dyadic Analysis of Civil War Duration and Outcome,” 2009.

addition to large and capable forces, existing work suggests that rebels also need effective shelter to protect against state attacks.

The goal of this paper is to identify when external support has an impact on the military capabilities of a rebel group and the specifics of that impact.⁵⁷ These capabilities enable a rebel to secure a favorable outcome once it has already started rebellion. Before turning to why rebels are able to secure favorable outcomes it is first necessary to identify what types of rebels I will be looking at. Rebels who only engage in violence against civilians (terrorism), are able to wage predominantly contemporary mechanized warfare (conventional), or are state insiders who overthrow the government quickly and with limited force (coup d'état) are excluded as they are outside the scope of identify capabilities in guerrilla or mixed guerrilla/conventional conflicts. Groups included must use at least some hit-and-run attacks against state forces (guerrilla) or wage conventional conflict without an industrial base, and with limited mechanization and air support (semi-conventional). These groups range in size from hundreds to tens of thousands of fighters and vary in their ability to attack and kill enemy forces, and maintain base areas from which they can launch operations or hide from enemy forces.

Because rebels start a conflict with no appreciable control of state power, resources, or territory, bargaining power is very low. Unless a rebel can demonstrate that it is worth bargaining with a state is unlikely to make any concessions at all (rebels are dismissed as “anarchists” or “criminals”). In order to convince a state to

⁵⁷ see, for example, Lockyer (“The Dynamics of Warfare in Civil War,” 2010; “Foreign Intervention and Warfare in Civil Wars: The Effect of Exogenous Resources on the Course and Nature of the Angolan and Afghan Conflicts,” 2008) for discussion on the link between external support and the “type” of warfare that occurred.

make concessions a rebel must demonstrate that it is not easily suppressed and that it can inflict meaningful costs, i.e., that the state has a non-trivial probability of losing or that the state will incur non-trivial costs by fighting. Engaging in sustained damaging attacks comes from larger, better equipped, and better trained military forces. In addition to engaging in attacks a rebel must also be able to survive against state military and police forces over time and maintain attacks during this period. The more secure shelter is from state military efforts the less likely it is that an unfavorable outcome will occur since the rebel will be able to lengthen the duration of a conflict. By extension the longer a conflict is likely to last the greater the cumulative costs of waging it and the more likely the state will settle in a manner favorable to the rebel.⁵⁸ Secure shelter comes from the ability to (1) hide within a civilian population that does not provide information about who the rebel is and where they are located, (2) base in territory that is difficult for the state to project force to, i.e., cross-border or harsh terrain such as mountains, or (3) maintain conventional bases in flat terrain through force of arms.

In order to identify when a rebel is likely to secure a favorable outcome this theory suggests that we need to identify three factors: (1) the ability of those forces to effectively engage in violence against the state; (2) the size of rebel forces facing the state; and (3) how effective rebel shelter is at mitigating state repression. These three factors are termed the rebel's "core capabilities." Existing work has shown that the

⁵⁸ State estimations about the length of a conflict are likely to come after larger offensives. If a state launches a significant offensive and it fails to rout the rebel the state will upwardly revise its estimate of how costly a conflict ultimately will be. Conversely, successful offensives will result in a downward revision of the estimated cost of a conflict.

greater the rebel's core capabilities the more favorable conflict outcomes will be.⁵⁹ A significant unanswered question is how these capabilities are generated. In some cases these core capabilities can be met with a country's natural endowments. Mountainous terrain or dense jungles, for example, make it much easier for a rebel to hide out in areas that a state has difficulty projecting force to. In other cases highly weak states—small and limited military and inadequate infrastructure—makes it much easier for a rebel to capture supplies and weapons that it needs directly from the state. More often, however, a rebel needs to rely on external sources.

There are two types of external assistance that directly provides a core capability: external bases or territory, and external military forces. In both these cases, rather than enhancing a rebel's capabilities, external assistance substitutes for these capabilities. Specifically, external bases and territory substitute for a rebel's need to access secure shelter locally and external military forces substitute for a rebel's need to engage in damaging attacks. External military forces may even be able to carve out territory that a rebel can use for shelter. These two types of external support substitute for an actor's military capabilities and thus are not theorized about directly.⁶⁰ The remaining types of external support—sharing of military infrastructure, weapons, logistics support and other types of non-military aid used in direct support of military operations, training and operational advisors, and intelligence—are likely to impact conflict outcomes by improving rebel military capabilities. Similar support to the state may also enhance the state's ability to effectively wage counterinsurgency.

⁵⁹ Aronson et al., "Collective Action, Insurgency, and Sustained Escalation," 2014.

⁶⁰ For a more detailed discussion about the impact of external troops and bases see Aronson et al., "Collective Action, Insurgency, and Sustained Escalation," 2014.

Although it is presumed that external support generally improves rebel capabilities it can also replace or reduce the efficacy of local military efforts by the rebel (e.g., by delegitimizing the rebel and thus reducing the ability of the rebel to leverage local informal mechanisms for control such as tribal councils) and thus provide no net benefit.⁶¹ Support, for example, can make rebels partially beholden to foreign agents and thus limit their local autonomy or delegitimize attempts to harness nationalism.⁶² Each of these types and sources of inputs are likely to impact rebel capability in different ways and thus affect each military outcome independently. One additional consideration is that the configuration and type of supporters may impact the efficacy with which it is provided (see Gent [2007] for a discussion of how similar preferences create free-rider problems⁶³). Many equally sized supporters may be more or less effective than one main supporter. In addition state and non-state actors are likely to provide the same type of support (e.g., weapons or intelligence) to different degrees of effectiveness. These final considerations are left to future work.

To produce favorable concessions, then, external support must meaningfully impact the rebel's ability to inflict costs (denying state access to territory or resources or destroying state forces/assets), or the ability to survive for prolonged periods of time. The ability to inflict costs is proxied by two different variables: force size and force quality. Larger and more capable forces will be able to better engage state forces—on the offense and defense—and deny the state access to key resources. The ability to survive is proxied by one variable: access to uncontested shelter. In order to

⁶¹ Salehyan et al., "External Rebel Sponsorship and Civilian Abuse: A Principal-Agent Analysis of Wartime Atrocities," 2014.

⁶² Byman & Krepps, "Agents of Destruction? Applying Principal-Agent Analysis to State-Sponsored Terrorism," 2010.

⁶³ Gent, "Strange Bedfellows: The Strategic Dynamics of Major Power Military Interventions," 2007.

survive against state forces a rebel needs a secure place to plan, train, build its forces, and engage in operations from. The more secure a rebel's shelter, the longer it will be able to maintain operations against the state. Generally speaking, the type of rebel best able to secure favorable concessions is one that has large high quality forces operating from secure shelter. Rebels may also be deficient in one area but well off in another. A rebel, for example, may have large poorly trained forces (e.g., groups like UNITA likely fit into this category). Groups may also be small but able to secure shelter amongst a civilian population that the state has trouble undermining. Because of diminishing returns (giving rebels the ability to recruit, train, and pay 1,000 additional militants is a lot more beneficial when the group only has 1,000 than if the group had 20,000) improving a weak capability (secure shelter if shelter is lacking, larger forces for small groups, greater quality for poorly trained or equipped forces) is more beneficial than improving an already strong capability. This produces two general propositions about external support and rebel ability to secure favorable concessions.

The various types of external material support are not likely to impact these three indicators of capability equally. Certain types of support are linked to larger forces, higher quality forces, and access to more secure shelter while others are not. I now turn to discussing how different types of support impact the three identified capabilities (lethality of operations, size of forces, and access to shelter).

Rebel lethality

Lethality of rebel forces can be measured in two ways: (1) the amount of deaths rebels can inflict on states; and (2) the loss-exchange ratio (LER) between

rebel and state forces. The greater the number of deaths that can be inflicted and the higher the LER the more lethal rebel forces are. It should be noted that both of these measures must account for the size of rebel and state forces. If, for example, a rebel is able to increase the number of losses it inflicts without increasing the size of its forces it has increased its lethality. If the number of forces increases at the same time than it is quite likely that increased enemy losses are due to more forces fighting rather than more *effective* forces fighting. Rebel force size is addressed below. Increase lethality of forces can come about due to several different reasons. First, if the same number of forces are able to engage in more operations than they will be able to cause more damage. Improved pace of operations is enabled by improved logistics and better training. Second, rebel forces may be able to inflict more casualties on the enemy in each attack. Increased battlefield performance is enabled by access to more sophisticated weapons, better training, and access to information about enemy locations, operations and capabilities. This allows better planned attacks in which the odds are more favorable.

H1a Access to weapons, logistics, and training will increase the lethality of rebel forces.

If increased pace and performance are accompanied by steady or even decreasing rebel losses than the LER for the rebel will also increase (more state deaths for the same amount of rebel deaths). This is most likely to occur if lethality is the result of greater battlefield performance and not increased pace of attacks (if the

pace of attacks are increased then rebel casualties are likely to go up as well). An ongoing argument in the insurgency literature relates to the importance of battlefield fatalities in generating outcomes. A standard bargaining perspective would suggest that the higher the costs of fighting the wider the possible bargaining range (alternatives to war) and thus the greater the chance of settlement. Settlement likely to be favorable for the rebel since it represents concessions relative to the status quo at the start of a conflict. In addition, states and rebels are likely to experience fatalities asymmetrically. This occurs because in general state forces have a high opportunity cost—forces used to suppress internal rebellion can't be used to enforce security in other parts of the country or protect against external threats. State casualties thus directly limit the ability of the state to control its territory and protect itself from external foes—in addition to increasing the concessions likely to be granted to rebels. Rebel forces, on the other hand, have one principle purpose: to inflict costs against the state. When rebel forces are killed the impact is to diminish their ability to inflict losses.

The rebel, then, is more willing to trade their lives for state lives because the principle purpose of their forces is to inflict losses against the state. This suggests that the rebel is less concerned about the LER than the state is—rebels are likely to use support to increase their ability to inflict casualties even if that means they take more losses in return (a greater pace of attacks), while states are likely to use support to achieve a more favorable loss-exchange ratio with the rebel (increase the battlefield performance of their forces in order to reduce the ongoing costs of conflict and allow their forces to be used for other purposes). States will thus also benefit from weapons,

logistics, money, training, and intelligence support but the impact of this support will be mainly to reduce the LER (only secondarily to increase rebel losses).

H1b Weapons, logistics, money, training, and intelligence support to the state will reduce the LER and have a minor impact on increasing rebel losses.

Rebel armed force size

Growing a rebel force is, effectively, a mobilization problem: how can a rebel group inspire, pay, or impress nearby civilians to join their armed forces. Just as important, once civilians have joined, how can a rebel group keep acquired forces fighting effectively on the battlefield? Thus any factors that make it easier for a rebel group to recruit, arm, train, and prevent defection as well as provide all the logistical requirements of modern warfare such as medical services, tents, ammunition, spare parts, etc. will increase the size of a rebel's armed forces (which is measured as the number of armed fighters under rebel command). Of the available types of external support, money, weapons and logistics are likely to contribute the most to building out rebel armed forces.⁶⁴ Money is necessary to pay for basic supplies, and provide salaries that entice fighters. Weapons are, of course, needed to engage in actual fighting. There are certainly cases of rebel groups starting a conflict with limited access to weaponry, which is then acquired through captured state assets, but this strategy is likely to produce armies of only the most limited die-hard supporters because of the extreme risks involved in participation as a mobilized but unarmed militant. Large rebel forces require at a minimum consistent access to modern small

⁶⁴ UCDP even defines its financial support as money directed towards expanding the armed forces of a supported state or rebel.

arms. Finally, logistics support provides the non-military essentials that keep a force on the battlefield and fighting. Without access to logistics rebel forces are likely to decay due to the normal attrition of fighting.

H2 Money, weapons, and logistics support will lead to larger rebel armed forces.

Rebel access to shelter

In the beginning, most insurgencies are weak and disorganized. Insurgents seek, at best, mere survival. Once past the incubation period, rebels try to grow from a small number of poorly resourced “bandits” and “terrorists” to a fully mobilized and well-armed insurgency. By detecting and destroying rebel members (or inflicting costs on civilian supporters) states can impose very high costs on rebellion. As the costs of participation in armed rebellion increase, civilians are less likely to join armed groups. Unless this problem of shelter can be solved early in a conflict the armed rebellion will likely fail to grow beyond a small group of die-hards. This problem of shelter must also continuously be solved over the course of a conflict—a failure to do so can lead to a situation where the state is able to bring down the full weight of its military power and crush the rebellion. In order to secure access to shelter a rebel needs equipment to build bases (tents, bulldozers, vehicles, construction equipment) and information about enemy capabilities, location, size, movement, etc. in order to keep bases hidden or to effectively mount defenses if necessary. Logistics and intelligence support are likely to have the greatest impact since they provide the ability to construct effective shelter and information about rebel activity. Shelter can also be secured through defense and by controlling the flow

of information from civilians near to where the rebel established shelter. Thus it is also expected that better armed and trained forces (weapons and training support) may also contribute to the ability of a rebel to defend against state forces and coerce silence from civilians (both lead to more access to secure shelter).

H3 Logistics and intelligence support have a large, and weapons and training support have a small, positive impact on rebel access to secure shelter.

Alternative explanations

In this section I explore potential confounding factors, including other explanations for the effectiveness of external support as well as variables that may influence the ability of rebels to produce large and effective forces, or secure shelter. We know from existing research on the trajectory of intrastate conflict that rebels are weakest initially and thus must vulnerable to defeat at the onset of conflict. The longer a conflict lasts the more likely it is to end in a settlement (a favorable outcome for the rebel relative to the pre-war status quo). This suggests that the timing of support is likely to be important. The earlier in a conflict support arrives, the more likely that it will make a difference in allowing a rebel to survive its initial period of weakness.

The first consideration is how combatants fight. We know that the power balance between combatants will determine the type of fighting that occurs (Kalyvas & Balcells 2010; Arrequin-Toft 2001). These conflicts vary in the types of weapons combatants employ, the command and control/mobilization structures employed, and the underlying logistic framework that allows power projection. Different types of

fighting thus entail different methods of employing (and thus generating) military power, which likely impacts which types of support are beneficial. Existing work suggests, for example, that the impact of external support to states depends on the type of warfare (Sullivan & Karreth 2014).

When the state has very high power projection capabilities the rebel will be unable to maintain static assets since these are vulnerable to attack. Instead, the rebel will need to rely on activity in the periphery or hiding amongst civilian populations while making use of guerrilla warfare to maintain coercive pressure. This type of fighting puts a premium on the rebel's ability to secure external shelter, or control civilian populations internally (preventing defection is key). Securing significant military funding is less important as hit-and-run attacks can be conducted with light weaponry and heavy weaponry may actually make a rebel vulnerable to identification. In these types of situations the rebel is unlikely to ever win by defeating the state. Instead, the rebel focuses on evicting a strong foreign power (in order to shift the conflict to a conventional or semi-conventional stage), or surviving over a longer duration while maintaining coercive pressure in order to secure some type of favorable concessions.

When rebel power is high a conflict takes on conventional characteristics. The same rules that apply to conventional warfighting (mass mobilization, heavy armaments, an effective military strategy) also apply to conventional civil wars. In order to secure bases to operate from a rebel needs high conventional defensive power. Thus factors that allow a rebel to raise, arm, and train more soldiers (heavy weapons, modern training techniques) will allow the rebel to survive and possibly

win against the state. Strategic interaction between opponents also matters (see, for example, Stam, *Win, Lose, and Draw*, 1998; Beckley, “Economic Development and Military Effectiveness,” 2010; Biddle, *Military Power*, 2004). These types of conflicts are relatively rare although certain important stand-out examples exist. The current conflicts in Libya and Syria, for example, have been termed a conventional civil war by Kalyvas and Balcells (“Technology of Rebellion in the Syrian Civil War,” 2014)—pitched battles, controlled territory, and clear front lines. The current conflict between ISIS and Iraq also fits this profile. With the US gone, ISIS was able to wage conventional warfare against the Iraqi government. (It is important to note that the CIA report classified Syria as an “insurgency” rather than a conventional civil war.)

When the state has low power projection capabilities the rebel is able to hold static assets but neither side is able to make use of conventional warfare techniques (large-scale sustained offensives, air power, significant mechanization, etc.). Maintaining information control and operating on the periphery are not the keys to victory because neither side has much ability to operate far from established territory. Military campaigns are slow, halting affairs. There are also few attempts to mobilize or expand military forces—instead combatants reflect existing ethnic or political militia forces. These types of conflicts are not likely to feature significant new mobilization because combatants don’t have these channels in place and because they don’t have command and control structures that would enable political control over large numbers of new soldiers. The predictors of success in these types of conflicts are likely to be similar to conventional conflicts. Better training, more weapons,

greater numbers of soldiers—any conventional factor that allows a particular combatant to fight more effectively.

The chance of rebel victory varies significantly across these various technologies of conflict. Incumbents are very likely to win insurgencies but are relatively less likely to defeat opponents in conventional or symmetric nonconventional conflicts.

Rebel organizations also vary in their ability to effectively handle access to material resources. Staniland (2013), for example, argues that groups vary in their leadership cohesion (horizontal ties between group members, including formal mechanisms for control such as internal policing and bureaucracy) and their connection to society (vertical ties between group leaders and foot soldiers—this comes about from informal ties between groups and society such as ethnicity or grievances that provide internal motivation). Internal cohesion and connection to a society covers a lot of ground with respect to existing theories about the effectiveness of rebel organizations. Effective horizontal ties is another way of saying that a group suffers little from internal leadership struggles and has an effective bureaucracy. Vertical ties are present when a group has strong support from a population and foot soldiers have strong internal motivation for fighting, i.e., there is reduced chance for defection.

A key question is when these factors are likely to be in place (what determines whether or not horizontal and vertical ties are in place) and whether these are associated with vulnerabilities. Sinno similarly privileges the role of a group's organization.⁶⁵ Militant organizations need to mobilize, plan, coordinate, and manage an army. Centralized organizations (corresponding to high horizontal ties) can do this

⁶⁵ Sinno, *Organizations at War in Afghanistan and Beyond*, 2008.

more efficiently than decentralized organizations (low horizontal ties) but they require a safe haven that is able to prevent management from being killed or disrupted. This ability to maintain a centralized and undisturbed safe-haven is heavily dependent on the balance of power. When a state is very strong, rebels will find it difficult to create centralized safe havens. This suggests that technology of war will determine the extent of horizontal ties.

Empirics

In order to test the impact of support I link data on external support to a modified version of UCDP's 2014 dyadic armed conflict dataset from 1975-2012. Three key changes were made to the UCDP dataset:

1. Several dyads/dyad-years were removed because the groups identified by UCDP as combatants were not engaged in conflict against a state in that state's territory (e.g., al-Qaeda vs. the United States from 2001-present).
2. Dyad IDs were modified to take into account group merges, alliances and name changes (e.g., the Chechen Republic of Ichkeria—involved in fighting with Russia since 1994—becomes the Caucasus Emirate in 2007 with no change in fighting; in UCDP these are separate dyads, in the dataset used here these are now the same dyad). By making this change I am able to track the progress of groups from inception to outcome.
3. Dyads in the original UCDP dataset have been broken up into shorter conflict periods that reflect changes in the government opponent being fought against, or resumption of fighting after long pauses in conflict. For

example, the original UCDP dataset treats Afghanistan as one long conflict that starts in 1978 and is ongoing as of 2013. The revised coding used in this paper treats it as four distinct conflicts. The first from 1978 to 1992 reflects the fight against the Communist People's Democratic Republic of Afghanistan. The second features various mujahidin groups and the Taliban fighting each other for control of the government from 1992 to 1996. The third is the conflict between the Northern Alliance and the Taliban government from 1996 to 2001. The fourth and final conflict is the US backed Afghan government fighting against the Taliban (and several other mujahidin groups). The government in all four conflicts differs significantly in type, capability, and goals which heavily structures the nature of the insurgency fought.

Model

The dataset assembled is hierarchical and nested at multiple levels. There are yearly observations for rebel groups, and there are often multiple rebel groups fighting together in one conflict. Sometimes there are multiple conflicts that a particular state is involved with. At each level observations are likely to be correlated. Multiple observations of the same rebel group are all related to each other—and distinct from multiple observations of other rebel groups. Similarly, there is likely to be groups of correlated observations at two other levels: at the conflict level and at the state level. These observations are also hierarchical: each state has one or more conflict; each conflict has one or more rebel group involved. This data structure is a natural fit for a multilevel model (MLM). A multilevel model introduces separate

error terms (random effects drawn from a normal distribution) at each level to capture unobserved heterogeneity.⁶⁶ In order to identify when support is provided a logit model is used. The non-zero coefficients for the random intercept suggest that the MLM model is a better fit for our data than an ordinary logit. A likelihood-ratio test provides further evidence that the MLM fits better than the non-MLM model, i.e., there is substantial unobserved heterogeneity at the chosen levels.

The more levels that are chosen the greater the number of random effects that need to be added. Given sample size it is often not possible to use more than one or two levels and still have the maximum likelihood estimate converge correctly. Because of this I prioritize two levels that account for the most unobserved heterogeneity: periods of rebel fighting and country. This accounts for differences between rebel groups and between the same rebel group involved in fighting different opponents, and differences between countries. There is not a strong theoretic reason to believe that additional unobserved heterogeneity should be accounted for. Any substantial changes in government should be reflected in the move from one conflict period to the next. In addition there is no evidence that including year as a level in the MLM improves the model—the coefficient of that random effect is next to zero and there is not theoretic reason to believe that all rebel or state activity in the same year is correlated and distinct from rebel or state activity in other years. To account for time a count variable recording the length of a conflict period is included in the statistical model.

⁶⁶ For more discussion of why a MLM is used see: Gilardi, “Who Learns from What in Policy Diffusion Processes?,” 2010; Shor et al., “A Bayesian Multilevel Modeling Approach to Time-Series Cross-Sectional Data,” 2007.

Dependent variables

Three different dependent variables are used to test the impact of external support on rebel capabilities: rebel force size, rebel access to shelter, and rebel military lethality. Each of these variables is described below. The data on rebel force size and access to shelter are based on original research using open source information. Data on rebel lethality comes from the UCDP Georeferenced Event Dataset, which is limited to Africa from 1989 to 2010.⁶⁷

Rebel and state armed force size

Rebel force size indicates the best estimate of the number of militants who were armed and under the command of a rebel group, i.e., that were mobilized and could be used to fight state forces. This estimate exceeds what could be considered the rebel “vanguard”—those hardcore militants who form the core cadre around which a rebel organization is built—but is far less than the number of a rebel group supporters—who are often unarmed and may be supporters in name only. In order to generate this estimate I attempted to triangulate as many sources as possible and then generated a best estimate (taking into account how forces fluctuated over the course of a conflict). Data for the rebel is collected at the dyad-year level while data for the state is collected at the conflict-year level because it is difficult to differentiate the forces committed against particular groups in a larger conflict. I record only the military forces belonging to the state or a particular group.

Rebel armed force size is the principal dependent variables but estimates of state force size are also coded since this is an important constraint on the size of rebel

⁶⁷ Sundberg & Melander, “Introducing the UCDP Georeferenced Event Dataset,” 2013.

armed forces. Pro-government militias (PGMs) fighting against rebels (such as the United Self-Defense Forces of Colombia [AUC]) are not recorded as belonging to a state's force size. Because their leadership is distinct from the state they are treated as separate groups that may be involved with conflict against the rebel (if they fight the rebel they are coded as contributing to infighting between the rebel and other non-state actors). For the state I identify the number of military and police forces who were actually mobilized and committed to fight in a particular conflict. Conflicts may involve multiple rebel groups but the incompatibility is the same so all the rebels are fighting on the same "side" against the state. A state may be involved in multiple conflicts at the same time in its territory.

This is a contrast from existing datasets (e.g., the Non State Actor Dataset) that just look at total army size available to a state. For many African conflicts—where government forces are modest in size—the total number of soldiers available to the state is a reasonable estimate of the number of forces actually committed to a conflict (although care needs to be taken for states fighting multiple conflicts). For more established states (e.g., Pakistan, India, Thailand) the total number of forces available to the military often differ dramatically from the number of forces committed to a particular conflict over time. By looking at mobilized and committed manpower I take into account the number of state forces that can actually be used to fight or defend against a rebel group. When a rebel group first starts—and is usually seen as nothing but a "criminal" problem that doesn't warrant more than a police response—the amount of committed forces is often very low. If the rebel is able to

survive and maintain attacks the state updates its beliefs about rebel capability and mobilizes forces accordingly.

This original data was first generated using the UCDP database, the International Institute for Strategic Studies (IISS) yearly military balance reports, the Stockholm International Peace Research Institute (SIPRI) force estimates, and the Non State Actor Dataset. Extensive additional research was undertaken to correct and expand this data to focus on accurate yearly estimates using Keesings, various think-tank and NGO reports, and other news sources. My research prioritized the collection of data for the start and end of dyads/conflicts, and all inflection points—years in which an identified drop or gain in forces occurred. All available point estimates were included to produce a reasonable estimates of force size over time. Because estimates of forces committed to a conflict by the state or under arms and control for a rebel can vary significantly I also spent a great deal of time reconciling these estimates with each other, making sure estimates really did reflect changes over time (many sources list the same force size for many years in a row), and with the available conflict narratives that indicated significant battlefield outcomes or mobilizations/demobilizations.

When yearly point estimates were missing and there was no indication of a substantial change in force size the missing data was linearly extrapolated from the closest available data points. Given the state of the available sources of information on rebel forces there are undoubtedly errors in the data collected as well as missing entries that had to be interpolated. This data improves upon available datasets by providing estimates of combatant capability that changes over time. This makes it

possible to accurately link the provision of external support to changes in force size over time. In the data presented here force size does vary significantly over the course of a conflict (from increasing over time due to rebel recruitment, to decreasing over time due to losses, to more complicated curves that features peaks or troughs during the course of fighting).

Rebel access to shelter

A second key measure of a rebel's core capability is yearly access to shelter. I use shelter instead of territorial control (e.g., as available through the Nonstate Actor Data) because territorial control doesn't capture a capability necessary for a rebel to produce coercion against the state. Territorial control is more likely to proxy for the scope of state control or for success in more conventional conflicts. Existing measures of territorial control are also only available at the dyad level (or vary infrequently at the sub-dyad level) and thus don't adequately capture yearly variation. Shelter measures the extent to which a rebel had bases (or safe houses or any form of shelter) in the country where insurgency is occurring. These bases may look different from rebel to rebel (some rebels rely on safe houses, others develop sophisticated quasi-conventional bases). The availability of information limits my ability to identify the type of shelter that was used. All I seek to do is identify whether or not a rebel has shelter, and if it does have shelter whether or not that shelter is challenged by the state or another group. This measure is theoretically distinct from force size (large rebel forces should not cause secure shelter) and a quick test of correlation shows little

relationship (a coefficient of 0.28). A three point scale is used to measure a rebel's access to shelter in the conflict country:

1. A value of "0" means no shelter was identified. This particular rebel group has no permanent military bases, mountain hideouts, or control of population centers. At best the rebel has temporary encampments and no permanent infrastructure or safe locations from which a rebel can operation. At this coding the rebel is moving from location to location to avoid state detection. This value is coded only when there is available evidence that rebels were kicked out of population centers they inhabited or that bases were overrun.
2. A value of "1" means the group had some form of permanent shelter in the form of bases, hideouts, or villages but this shelter was militarily contested by the state or another group (fighting over control of a village where a group is sheltered or military bases that are under constant bombardment). Contestation can involve both direct military assaults against defended bases as well as state offensives designed to separate rebel from civilian. Contestation is only coded if there is evidence that important bases are under attack (e.g., a group's main headquarters) or if shelter throughout the conflict area is under attack.
3. A value of "2" means the group had access to military bases, mountain hideouts, or population centers that were largely uncontested. The rebel could operate out in the open with little fear of large-scale attack. This value is coded when there is evidence that a group has some form of

shelter that it relies on and there is no evidence that state activity was able to undermine this shelter (e.g., if a state is mainly defensive or if there is fighting between both sides but not over bases, safe houses, or population centers where the rebel resides).

1. An example help to illustrate this coding scheme. During the US-Iraq War, Sunni Insurgent groups were able to establish uncontested bases in the Sunni Triangle and launched attacks in 2004. Insurgents had rudimentary weapons industry and could train and operate in cities across the mid and south with limited fear of US intervention (a value of “2”). Starting in late 2006, and having a practical impact in 2007 and 2008, the US was able to flip Sunni tribes supporting the insurgents and instituted a strategy of systematically separating the rebels from their civilian shelter (a core part of “The Surge”). During this period rebel shelter was contested (a value of “1”) and remained contested throughout the remaining period of US involvement. Had there been evidence that insurgents were fully kicked out of Sunni areas and could no longer reside in populated areas the shelter variable would be coded as “0”. Instead, shelter control returned to a “2” in 2011 after US forces left the country and Iraqi force were unable to systematically contest rebel shelter throughout the country.

Rebel force lethality

Data for all measurements of lethality (rebel deaths, state deaths, and the loss-exchange ratio [LER]) comes from the UCDP Georeferenced Event Dataset. Unlike

the analysis of rebel force size and access to shelter—which covers all civil wars in the entire world between 1975 and 2012—data on battlefield events are only available for a subset. The GED records all battle events—between states, rebels, and against civilians—that occurred in African civil wars between 1989 and 2010. Importantly it is possible to identify which side (state or rebel) incurred deaths. This makes it possible to sum the casualties for each side in a year and produce a yearly measure of lethality. To identify the LER the number of state fatalities is divided by the number of rebel fatalities. This produces a number that specifies the number of state forces killed for every rebel force killed. A number above one denotes that more than one state force was killed for every rebel fatality while a number below one indicates that more than one rebel was killed for every state force killed. Higher numbers are more favorable for the rebel. One problem with using the GED dataset is that there are a lot of unknown deaths. I attribute these deaths in two ways. When information on who suffered a death was available for more than half the data I apportioned the unknown deaths based on the existing fatality ratio. So, for example, if the state suffered 50 deaths, the rebel suffered 100 deaths and 90 deaths were unknown I would apportion the unknown deaths according to the ratio of the known deaths (30 to the state and 60 to the rebel). When unknown deaths were high in a year I used the death ratio for the nearest year (interpolated when ratios for both the year before and the year after were available) and apportioned unknown deaths accordingly. If no data on the death ratio was available (a particular dyad had more than 50% unknown deaths in every year) the data point was dropped.

Independent variables

External support data is based on the UCDP External Support Dataset. This data, which only extends to 2009, was supplemented with original research and information gathered from the UCDP database in order to create a list of all external support to both rebels and states from 1975 to 2012. Both proven and alleged support is recorded and marked accordingly. External support encompasses the following types of support: access to military or intelligence infrastructure, weapons, materiel/logistics, training/expertise, funding, and intelligence. Specific capabilities can be of the following types: troops on the ground, joint operations, and access to territory (bases). For each type of support the data records whether or not support was provided in a particular year and who provided the support. Support may also come from state or non-state actors. This is also recorded. The data on external support comes from Aronson (2015b).⁶⁸

One issue that came up during analysis was that support often clustered. Supporters that provided weapons support to a particular actor, for example, also provided logistics support. In some cases correlation in the sample was as high as 0.85. For a number of the variables this made it very difficult to tease out the specific impact of one type of support as opposed to another. In all cases where correlation exceeded 0.6 the variables were grouped together into composite variables that represented a count of the number of different types of support that was present at the same time. One variable used, for example, grouped state-provided weapons, money, and logistics. This variable took on one of four values: “0” if none of these types of

⁶⁸ Aronson, “Pursuing Goals, Avoiding Costs: Predicting the Occurrence and Non-occurrence of External Support,” 2015.

support was present, “1” if one of these types was present, all the way to “3” if all three types of support was provided to the same actor in the same year from an external state supporter. Because of this limitation it is not possible to compare the effects of these different variables at the same time. All I can say—if the composite variable was significant—is that these types of support mattered and the more that were present the greater the impact of the variable.

Control variables

Use of a multilevel model (described in the section above) allows unobserved heterogeneity to be accounted for by location and by conflict period. This is likely to account for some of the concern about confounding or omitted variables. Certain conflicts or actors, for example, may have different baselines in the type of external involvement. A few concerns remain that are controlled for. The duration of the conflict period in years is included to account for time. The presence of mountains in the conflict zone may also influence the ability of both state and rebel to engage in combat and interact with civilians—and thus influence fatalities, force size, and access to shelter. Finally I account for the polity score of the state opponent to the rebel being support. In this case polity score is used as a proxy for state military policy since it has been suggested that regime type influences counterinsurgency strategy.⁶⁹

⁶⁹ See, for example, Lyall, “Do Democracies Make Inferior Counterinsurgents? Reassessing Democracy's Impact on War Outcomes and Duration,” 2010; Merom, *How Democracies Lose Small Wars*, 2003.

Results

I first explain how the independent variables impact rebel lethality—including the Loss-Exchange Ratio, which also takes into account the impact of support to the state. I then turn to rebel force size and access to shelter. To measure the impact of external support on rebel lethality I look at three different dependent variables. State deaths, rebel deaths, and the loss exchange ratio. State deaths most directly tests rebel lethality. Although look at rebel deaths also allows us to discern between the two possible ways in which external support can increase rebel lethality (increase the pace of attacks and increased battlefield performance). All of the types of support (provided from both states and rebels) were tested for all three equations. The equations presented shows the variables that did have an impact or were theoretically expected to have an impact (not all the variables performed as expected). If a type of support is not listed that means it was not statistically significant. The same process was followed to identify the variables that impacted rebel force size and access to shelter. Table III shows these results.

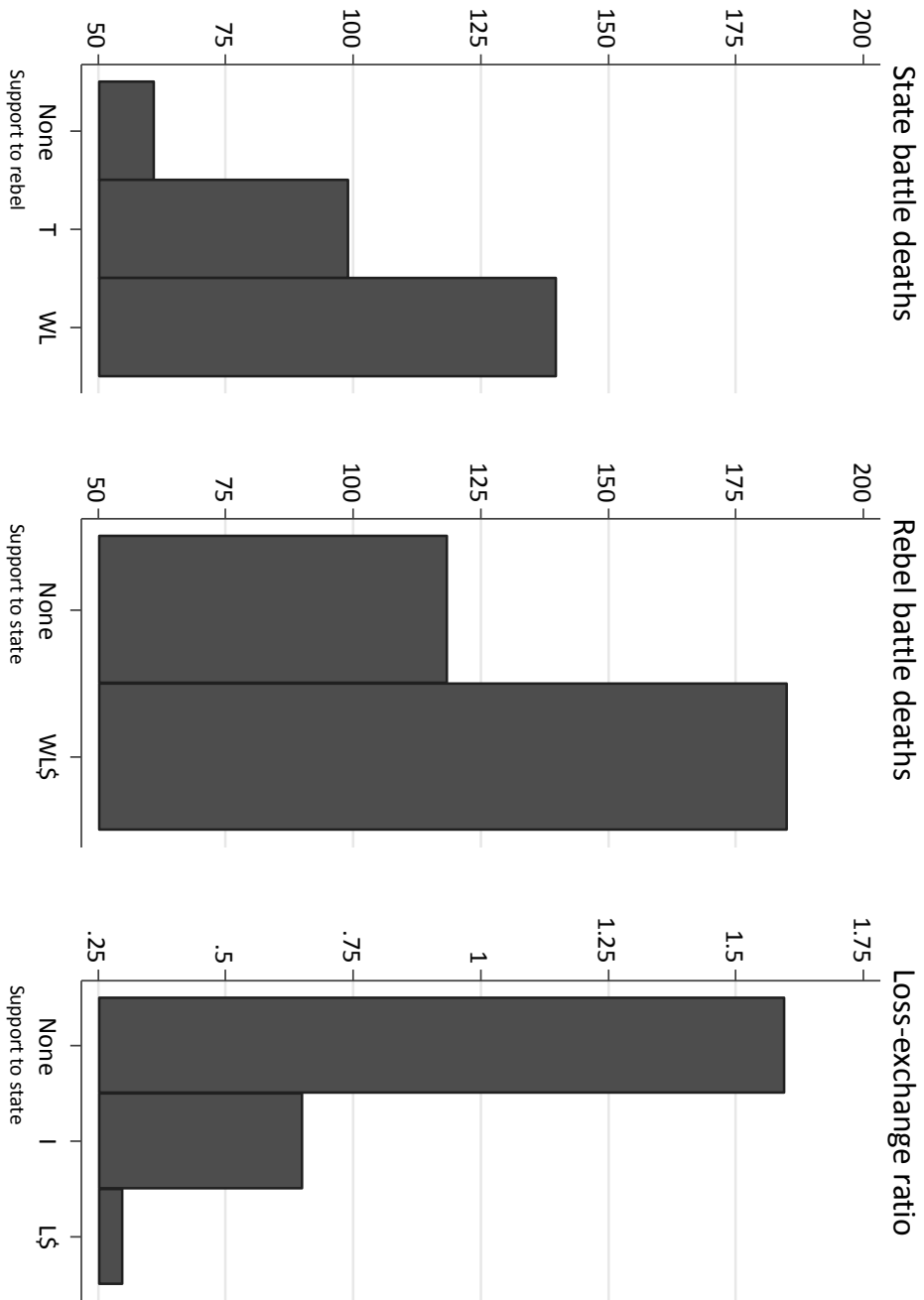
Table III: External support and force quality

	(1)	(2)	(3)
	State deaths	Rebel deaths	Loss-exchange ratio
Rebel: weapons, logistics (state)	0.277** (0.118)		
Rebel: training (non-state)	0.487** (0.218)		
Rebel: intel (non-state)	1.111+ (0.761)		
State: weapons, logistics, money (state)		0.149* (0.0810)	
State: logistics, money			-0.559*** (0.187)
State: intel			-0.897*** (0.300)
State: force size	0.0534 (0.127)	0.0471 (0.158)	-0.133 (0.207)
Rebel: force size	0.792*** (0.162)	0.331*** (0.117)	0.818*** (0.264)
Rebel: access to shelter	0.368** (0.174)	0.0294 (0.196)	0.896*** (0.194)
Control: conflict duration	-0.0755*** (0.0285)	-0.0371* (0.0224)	-0.0574 (0.0523)
Control: mountains in conflict	-1.009* (0.589)	-0.0300 (0.603)	0.926 (1.092)
Control: polity score	-0.0364 (0.0357)	-0.0274 (0.0393)	-0.0340 (0.0525)
Log-alpha	0.385** (0.195)	0.565*** (0.218)	0.264* (0.158)
Variation: rebel	1.267*** (0.415)	1.157*** (0.423)	3.629*** (0.831)
Observations	359	359	359

Robust standard errors in parentheses; + $p < 0.20$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

As expected external provision of weapons, logistics and training all increased the number of state deaths controlling for state and rebel force size, rebel access to shelter, and the presence of mountains. Contrary to expectation intelligence support did not have a statistically significant impact at conventional p-values. Using a directional hypothesis this type of support does have a positive statistically significant impact (p-value 0.15). Access to weapons and logistics were most effective when provided by a state actor. Given the asymmetry in military capabilities between state and non-state actors it makes sense that industrially produced weapons and non-weapon combat support would have a larger impact than weapons provided by non-state actors. Turning to the provision of training and intelligence, however, we see that support from a non-state actor increased state deaths while state-provided support of the same type had no impact. This is likely due to the better local information and the increased proficiency in irregular warfare possessed by these nearby non-state actors. This provides strong support for H1a. Turning to rebel deaths as the dependent variable we see that state-provided weapons, logistics, and money increase rebel deaths but the size of the coefficient is small and the variables are on the border of significance (p-value < 0.1). More importantly, state provided logistics, money, and intelligence had a large and highly significant impact on the LER—all three types of support significantly move the LER in the state's favor. This provides support for H1b. The impact of external support can be seen in figure III below.

Figure III: Impact of external support on rebel and state force quality



Given these findings it is also possible to identify how rebels and states use support. Support to the rebel increases state deaths, has no impact on rebel deaths (or even increases rebel deaths), and has no impact on the LER. This suggests that rebels use the support available to them to increase the pace of attacks they conduct against the state. There is less evidence that support increases the battlefield performance of rebel groups. Support to the rebel, in effect, increases the intensity of the conflict as a whole. Support to the state, however, largely reduces the intensity of conflict. There is a small impact on state ability to inflict rebel casualties but the majority of the impact is felt in a reduced LER. Support to the state, in effect, increases the ability of the state to better protect and maintain its forces. Table IV shows these results.

Table IV: External support, rebel force size, and shelter

	(1)	(2)
	Rebel: force size	Rebel: access to shelter
Rebel: weapons, logistics, money (state)	0.120*** (0.0226)	
Rebel: training (non-state)	0.0925 (0.0782)	
Rebel: weapons, logistics, training (state)		0.372*** (0.140)
Rebel: weapons (non-state)		0.510** (0.209)
Rebel: intel (non-state)		0.315*** (0.119)
Rebel: force size (lag)	0.0453*** (0.00433)	
Rebel: force size		0.982*** (0.179)
State: force size	0.248*** (0.0332)	-0.530* (0.296)
Control: conflict duration	0.0124*** (0.00284)	-0.101*** (0.0251)
Control: mountains in conflict	-0.424*** (0.150)	0.678 (0.574)
Control: polity score	-0.0126** (0.00545)	0.00772 (0.0322)
Variance: Location	0.371*** (0.126)	3.013* (1.817)
Variance: Rebel	1.125*** (0.111)	8.348*** (2.530)
Observations	1808	1808

Robust standard errors in parentheses; + $p < 0.20$, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

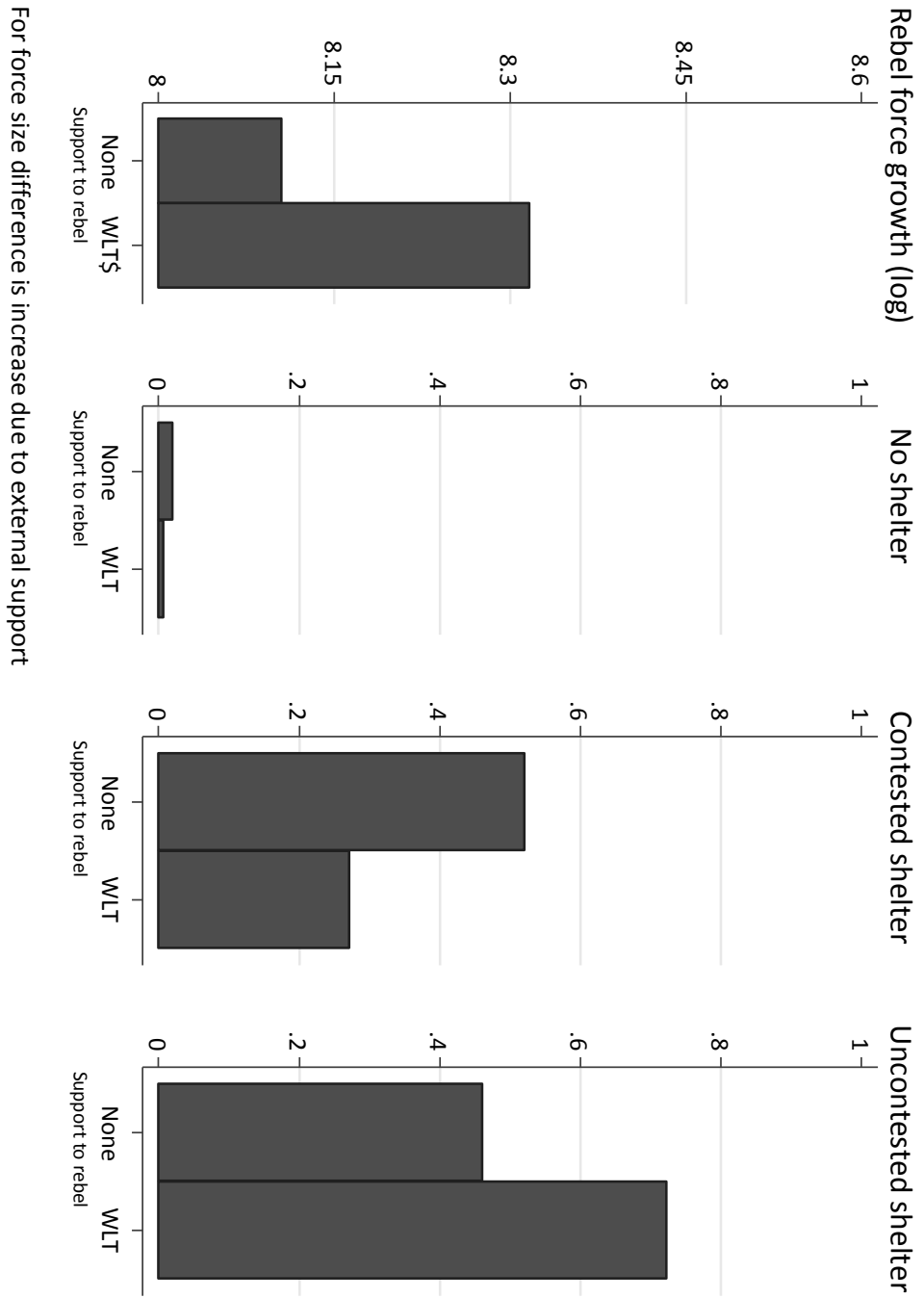
State-provided weapons, logistics, and money are also important predictors of increases in rebel force size but training has no impact. This largely supports H2. In the case of changes in force size state provided support is more important than non-state support. It seems highly plausible that state are able to provide more of the type of raw materials that combatants find necessary to build large and lethal military forces. We can also see that the lagged rebel force size is highly significant suggesting that there is a fair amount of autocorrelation that has been controlled for.

Finally, looking at rebel access to uncontested shelter we see a very different set of results. State-provided weapons, logistics, and training help a rebel access uncontested shelter. In addition, non-state provided weapons and intelligence also increase a rebel's access to secure shelter. As theorized, securing shelter requires a combination of factors including weapons, non-military material, and information about the opposing side. This largely confirms H3. It is also worth noting the non-significance of mountains. Despite the focus in the existing literature on the role of harsh terrain as a key determinant of successful rebellion it is not a significant predictor of access to more secure shelter in this paper. This is actually consistent with the literature that uses the occurrence of harsh terrain (and GDP) as a proxy for the ability of states to project power against rebel forces. Mountains may influence power project but its statistical impact diminishes when state and rebel capability is controlled for. Greater state capability reduces access to shelter while greater rebel capability (forces and access to certain types of external support) increases it.⁷⁰ The impact of external support on rebel armed force size and access to shelter can be seen in figure IV below. The figure shows the strong role that external support plays in

⁷⁰ See, for example, Fearon & Laitin, "Ethnicity, Insurgency, and Civil War," 2003.

helping rebels growth the military forces and in securing access to internal shelter that is uncontested by government military forces. The key impact can be seen in the move from contested to uncontested shelter. In the tested sample access to external support reduced the probability that a rebel would experience contested shelter and increased the probability that a rebel would experience uncontested shelter.

Figure IV: Impact of external support on rebel force size and shelter



Conclusion

This paper shows that external support increases rebel capability along three metrics: battlefield performance, force size, access to secure shelter. Different types of external support, however, do not impact each capability identically. The results suggest that rebel battlefield performance is boosted primarily by support that enables the rebel to increase the number of attacks it is able to conduct with its forces, and the damage it is able to do in an attack. Weapons and logistics support from state supporters, and training (and to a lesser extent intelligence) from non-state supporters enables this. While rebels use support to increase the damage they are able to do against the state, states use support largely to better protect their forces—access to various material support reduces the ability of the rebel to engage in high-lethality attacks. Similar types of support allow a rebel to access shelter that is secure from state attacks (intelligence, however, plays a larger role). Looking at rebel force size we see that it is mainly a story of mobilization: to mobilize combatants a rebel needs to be able to pay salaries, provide weapons, and support forces in the field. These results contribute to our understanding of how rebels generate and use military power, the role played by external support, and how rebels and states use support differently.

One useful future extension of this work is to identify not just the military impact of support but also the extent to which support alters the behavior of a supported actor. There is good evidence that external support gives the supporter leverage over a combatant. Significant Soviet military aid to the leftist Derg military dictatorship, for example, gave the Soviets a considerable amount of influence over

Derg policies. From domestic policy such as economic planning to foreign policy such as the 1986 push to sign a peace agreement with Somalia. Similar patterns may unfold in support by democracies (reductions in civilian abuse, changes in counterinsurgency strategy, or regime liberalization). It is likely, however, that the goal pursued by the supporting state matters. If the supporter cares about the actor it is supporting it is more likely to influence that actor's policy. Providing support purely to damage a combatant the supporter is in a dispute with, however, may not result in any attempt to change domestic policy (and may, in fact, lead to a convenient blind eye to domestic abuses). The Soviets supported both Ethiopia and Somalia (Ethiopia's opponent) suggesting that they sought to create and nurture Communist regimes rather than settle scores with a rival, which may explain their impact on the Derg regime. Conversely the US backed rebel groups in Afghanistan during the 1980s in large part to bleed the Soviet Union (pursuit of a dispute) and there is corresponding less evidence of the liberalization of the Mujaheddin (although selection concerns are present: the US supported more pro-Western groups in the first place).

Chapter 3: Buying Tolerable Allies: Supporter Influence and One-Sided

Violence

Introduction

An important consideration for states seeking to support rebel groups is how the rebel's behavior will reflect on the state. When deciding whether or not to support Syrian rebel groups, the Obama administration was deeply concerned about whether or not militant groups would engage in activity—such as civilian targeting—that might reflect poorly among domestic constituents. Core U.S. interests were not at stake in Syria and thus this may be brushed aside as a luxury of selective intervention. Even when core interests were at stake as was the case in the Soviet invasion of Afghanistan, however, there is evidence that the U.S. was highly selective in which of the many Mujaheddin groups to support. Not just because of concerns that the groups might misuse aid but because of considerations about the cause that a group was championing—and how it was going about doing so. A key question, then, is the extent to which patron preferences can exert an influence on rebel client activity. A key preference on conduct—especially among democratic supporters—is minimization of harm done to civilians by the rebel client.

Prior work has focused on external support as a principal agent problem. A supporter provides war making material in exchange for the rebel pursuing the supporter's foreign policy by proxy. The extent to which support is misused, i.e., the rebel shirks its “duty” to the supporter, is a key concern for the supporter. This work,

however, has focused on how supporters select groups they think will better use their support. No existing work has looked at the influence that a supporter may have on a supported rebel--or state. This is an important oversight in the literature. Many of the recent cases of external intervention was undertaken not only to influence conflict dynamics but also to influence the behavior of supported combatants. In a broad sense, for example, the U.S. has continually backed the Iraqi government because it seeks not only to defeat Islamic militants in the country but also to create a friendly democratic partner in the government of Iraq. Similarly, U.S. support of rebels in Syria is intended not only to prevent mass-killing by the Syrian regime but also to shift the rebel's relationship with civilians in a more liberal manner.

One may also imagine that this sort of consideration occurs when rebels support other rebels as well. Consider that the leader of al-Qaeda, al-Zawahiri, repeatedly tried to get the leader of al-Qaeda's Iraqi franchise, al-Zarqawi, to limit the amount of violence inflicted against civilians—especially Shi'ite civilians.⁷¹ These types of issues arise because the supporter often has different goals than the actor being supported. The local combatant tends to have relatively more personalist and nationalist aims—immediate expansion of group power, balancing against rivals, playing to domestic audiences, etc.—while the supporter often has transnational aims. In supporting rebels in Syria, for example, the U.S. is less concerned about the fortunes of any specific group than it is about removing the Syrian regime from power and trying to establish a more democratic and representative state. This

⁷¹ Al-Zawahiri is quoted in 2005 as saying: “[M]any of your Muslim admirers amongst the common fold are wondering about your attacks on the Shia...My opinion is that this matter won't be acceptable to the Muslim populace...I say to you that we are in a battle, and that more than half of this battle is taking place in the battlefield of the Media.” See: Bergen, *The Osama Bin Laden I Know: An Oral History of Al Qaeda's Leader*, 2006, pg. 367.

divergence of interests can cause friction between the supporter and the combatant over a combatant's behavior. The targeting of civilians is both an especially important issue that often generates tension (at a micro-level it can generate frictions between group leaders and foot soldiers) and it is also an example of the general consideration of supporter influence over combatant behavior.

In order to do this it draws on the literature about principle-agent problems, the conditions under which combatants target civilians, and the impact of external support more broadly on one-sided violence. I argue that in order for a supporter to have an influence on a rebel's behavior it must care enough about that behavior to spend resources to engage in oversight—up to and including a willingness to reduce support or shift support to other rebel groups. It must also have the capacity to exert influence. In the case of rebel use of one-sided violence, democracies involved for reasons other than military rivalry have the incentive to influence rebel behavior. Other types of supporters—including non-democracies as well as democracies pursuing military rivalry lack this incentive. The capacity to influence rebel behavior is determined by the configuration of supporters and rebel combatants. This international relations theory perspective suggests that only when a single dominant supporter exists will it be possible to influence a rebel. Similarly, only when competition amongst rebels exists for support will the rebel be willing to have its behavior influenced.

This original theory is tested using a new yearly dyadic dataset and found to have strong support. Several key findings result. First, regime type is an important indicator of a supporter's preferences for influencing the use of one-sided violence—

but only when no military rivalry is involved. Second, the configuration of supporters matters. If supporters are multipolar—more than one supporter with no one dominant supporter—then it is unlikely that rebels will be reliant on a single supporter, and thus supporters have difficulty influencing the rebel. If, on the other hand, the supporter configuration is unipolar—a dominant supporter is present—the supporter is able to influence rebel behavior. Third, the configuration of rebels also matters. If a supporter is reliant on a single rebel (a unipolar configuration) it will have difficulty credibly shifting support in the face of bad rebel behavior. If, however, there are multiple rebels (multipolar) then a supporter is able to influence a rebel.

Prior work

Although an extremely important and relevant topic, relatively little prior work has looked at the ability of external supporters to exert influence over a rebel combatant—especially not using time varying data. Existing work has, however, explained principle agent problems in the context of U.S. foreign policy, specifically looking at the question of whether or not U.S. aid causes a recipient state to behave in a manner more congenial to U.S. interests. The conventional wisdom is that military aid buys influence over a target state. The target state needs the aid thus it will be responsive to the provider in order to make sure that aid keeps flowing. If the state acts favorably aid is increased. If the state acts contrary to the provider's interests, aid is reduced. In this way, state behavior—especially of dependent states—is influenced. Previous work has found support for this model in the case of superpower arms

transfers to India and Pakistan.⁷² Foreign aid, however, is not randomly distributed—military aid is usually endogenous to a particular security problem that makes it difficult to manipulate the recipients' behavior. Aid may also be provided to states sensitive to concerns about being seen as an international puppet, which incentives non-compliant behavior in other issue areas. Often at odds with the Iraqi government over a host of issues since the 2003 invasion, the U.S. nevertheless had significant difficulty using aid as a carrot. The consequence of cutting off aid to Iraq was perceived as significant and thus U.S. threats in this direction lacked credibility. This dependence allows the recipient to shirk in its duty without fear of losing support. Recent scholarship has found that aid is more likely to reduce rather than increase influence.⁷³

This survey of the interstate literature suggests a number of key issue areas to focus on. First, dependence can flow both ways. The recipient may be dependent on the provider and vice-versa. Dependence structures the willingness of the recipient to shirk its responsibilities or challenge the provider. Similarly, dependence by the provider limits the ability to modulate foreign aid in response to recipient behavior. Another key consideration is the extent to which foreign support may impact the domestic legitimacy of the recipient. This is especially likely to be the case when identities (religious, ideological, or ethnic) differ. A related issue is that recipients may differ in their compliance based on the particular issue area. In the case of Iraq, for example, the government was highly responsive to U.S. security concerns

⁷² Sanjian, "Cold War Imperatives and Quarrelsome Clients: Modeling U.S. and USSR Arms Transfers to India and Pakistan," 1999.

⁷³ Tessman & Sullivan, "Bang for the Buck? Assessing U.S. Military Aid and Recipient State Cooperation," 2012.

(combating al-Qaeda) but far less responsive to issues that may be deemed less central to the purpose of foreign aid—such as political inclusion of Sunnis or liberal political reforms. Breaking down the type of foreign policy activity may show behavior hidden by aggregating all policy behavior together. In other words, when a provider gives arms it is looking for compliance in a particular domain (such as suppression of a particular threat) and not across a host of other issues. See, for example, work suggesting that arms transfers increased human rights violations.⁷⁴ We thus might expect that patrons will pay attention to compliance only in certain issue areas while turning a blind eye to others.

Recent literature has also more fully explored the reasons why it is difficult for a supporter to “buy” policy concessions. First, support can create moral hazard problems. Because the continued provision of support is often conditional on the ongoing presence of a particular problem (e.g., aid to Pakistan to suppress Taliban militants in the Federally Administrated Tribal Area) there is a strong incentive to signal activity towards this goal without actually accomplishing it.⁷⁵ Progress without completion allows the aid to keep flowing. This occurs because the patron has limited oversight capacity over the state receiving support. Similar pathologies are likely to be present in the case of patronage of rebel groups—because information problems are likely to be more severe this problem may be even larger in relation to rebel groups. In essence, groups are incented towards engaging in observable attacks (large

⁷⁴ Blanton, “Instruments of Security or Tools of Repression? Arms Imports and Human Rights Conditions in Developing Countries,” 1999. Bueno de Mesquita & Smith, “Foreign Aid and Policy Concessions,” 2007 provide a formalization of this phenomenon using selectorate theory.

⁷⁵ Bapat, “Transnational Terrorism, US Military Aid, and the Incentive to Misrepresent,” 2011.

headline-generating activity) that are fairly cheap to carry out. This signals compliance with the supporter without requiring highly costly activity by the rebel.

A related set of literature has examined the mechanisms of control that can reduce principle agent problems.⁷⁶ Control, for example, can occur through formal mechanisms of oversight such as observers on the ground, a big bureaucracy, etc. or through more informal channels such as working through existing institutions. Informal control is much more effective when the actor trying to engage in control shares norms, expectations and patterns of behavior. Ethnicity has also been found to proxy for the presence of informal institutions. When a principle and an agent share ethnicity it is likely that they also share involvement in any number of informal institutions that allow collective action problems to be solved. Shared expectations, for example, create focal points about desired activity that minimizes the need for other more costly or difficult forms of oversight.⁷⁷ Shared norms or involvement in informal institutions, however, does not necessarily address questions of supporter influence that this paper explores. Shared norms, for example, may cause more congruous behavior only because the agent would engage in this behavior independent of principle influence. The focus, then, should be on the factors that allow a supporter to shift the behavior of an agent even when that agent may not desire to do so. A main factor here is likely to be the extent to which the principle is able to use explicit forms of control such as sticks and carrots (e.g., decreasing support when the agent engages in unfavorable behavior).

⁷⁶ See, for example, Byman & Krepps, "Agents of Destruction? Applying Principal Agent Analysis to State-Sponsored Terrorism," 2010.

⁷⁷ See, for example, Schelling, *The Strategy of Conflict*, 1960; Huth, Croco, & Appel, "Bring Law to the Table," 2013.

Following this, supporter influence is likely to depend on the utility one-sided violence provides to the rebel. Even if a rebel is highly reliant on a supporter, it is unlikely that the rebel will reduce use of one-sided violence if this will dramatically diminish its ability to survive or generate concessions domestically. Indiscriminate violence is often thought to be counterproductive in irregular conflicts.⁷⁸ Existing work has argued that its use is usually the consequence of poor command and control⁷⁹ or reliance on lootable resources as a tool for recruitment⁸⁰. In both of these cases rebels may be unable to reign in abuses against civilians as they either don't have the capacity (poor leadership control) or because it is an unintended consequence of their recruitment strategy. Civilian targeting may also be part of a purposeful strategy, either as a result of adverse shifts in the balance of power (either to maintain coercive pressure or as a result of looting to replenish losses)⁸¹ or due to a deliberate strategy of weakening the enemy⁸². Another important consideration is that external support, by itself, can contribute to the targeting of civilians. Stronger groups are generally better able to target civilians, but this relationship is conditioned by the source of rebel capability. When rebels are less reliant on civilians for support—such

⁷⁸ See, for example, Kalyvas, *The Logic of Violence in Civil War*, 2006; Kalyvas & Kocher, "How 'Free' Is Free Riding in Civil Wars?" 2007; Kocher, Pepinsky, & Kalyvas, "Aerial Bombing and Counterinsurgency in the Vietnam War," 2011.

⁷⁹ Abrahms & Potter, "Explaining Terrorism: Leadership Deficits and Militant Group Tactics," 2015.

⁸⁰ See, for example, Humphreys & Weinstein, "Handling and Manhandling Civilians in Civil War," 2006, who link reliance on lootable resources as a tool for recruitment to abuse of civilians.

⁸¹ Hultman, "Battle Losses and Rebel Violence: Raising the Costs for Fighting," 2007; Wood, "Rebel Capability and Strategic Violence Against Civilians," 2010; Wood, "From Loss to Looting? Battlefield Costs and Rebel Incentives for Violence," 2014.

⁸² Fjelde & Hultman, "Weakening the Enemy: A Disaggregated Study of Violence against Civilians in Africa," 2014.

as when external support is present—they have fewer incentives to restrain from civilian targeting.⁸³

Existing work has also shown a consistent relationship between external support and abuse of civilians (it increases the capacity to abuse civilians and reduces the need to rely on civilians for basic resources). This means that the independent impact of external support on rebel use of civilian targeting must be taken into account when examining the role of supporter influence. This relationship, however, is conditioned by the regime type of the supporter. Democracies are more likely to be concerned with the use of civilian targeting by a rebel group (either due to internal pressure or from “naming-and-shaming” by non-governmental groups. Thus, when a democracy is a supporter it will attempt to reign in civilian targeting by a rebel. Non-democracies, however, will not. Even this more complicated relationship, however, does not take into account our best available understanding of the conditions under which a state is likely to be able to influence a rebel. The occurrence of one-sided violence depends on the ability of a patron to influence, and the receptiveness of a client to be influenced, which, in turn, depends on the utility of one-sided violence.

Theory

This discussion suggests a number of key factors that are likely to influence when a supporter will be able to exert influence over a rebel group with respect to that group’s use of civilian targeting. First of all, influence, in the context used in this paper, is costly. If a rebel has no desire to use one-sided violence than no effort needs

⁸³ Weinstein, *Inside Rebellion: The Politics of Insurgent Violence*, 2006; Wood, “Opportunities to Kill or Incentives for Restraint? Rebel Capabilities, the Origins of Support, and Civilian Victimization in Civil War,” 2014; Salehyan, Siroky, & Wood, “External Rebel Sponsorship and Civilian Abuse: A Principal-Agent Analysis of Wartime Atrocities,” 2014.

to be spent and the problem is moot. Since influence is costly, the supporter must have a reason to expend resources. Given that a supporter has the desire to influence rebel use of one-sided violence it must also have the capacity to do so. Influence may occur through highly formal oversight mechanisms such as placing observers. This is fairly unlikely, however, as supporters don't usually have the luxury of placing their own forces on the ground to observe and control a combatant's behavior. More likely, a supporter will use supporter itself as a means of influence. If a rebel engages in behavior that reflects poorly on the supporter, the supporter will reduce the amount of support provided. (It is assumed that information about rebel malfeasance is generated through media sources). This tool of control, however, is not likely to work in all situations.

If the patron is one of several outside actors attempting to provide support to a single rebel group, it is unlikely that the rebel group will substantially alter its preferences because no single supporter is able to cause much harm to the rebel being supported. Similarly, if the state supporter is highly reliant on the rebel—such is the case if the rebel is the only available actor to advance an important foreign policy goal—it is unlikely that secondary considerations such as the abuse of civilians will impact rebel activity. If, on the other hand, multiple rebel groups are competing for the support of a single large supporter, the rebels are likely to conform to the ideological position of that supporter. In Syria, for example, Saudi Arabia, which has a distaste for Islamist rebels, has been able to moderate the Syrian armed opposition because of its role as a single strong suppliers providing key arms and equipment to a

movement filled with diverse set of competing groups.⁸⁴ This structure is key to explaining the ability of a patron to influence a rebel. In fact, the often cited example of Pakistan, may be explained by competing external supporters rather than U.S. inability to influence Pakistani behavior.⁸⁵

Rebel use of civilian targeting does not impact all supporters equally. As a result, not all types of states are likely to be willing to expend resources to shift the behavior of a combatant. We should thus see shifts in combatant behavior only in certain circumstances. The leaders of some states—namely democracies—are impacted by domestic opinion. If domestic opinion turns against a policy of external support this may reduce leader tenure. Therefore, both the provider of support and the combatant receiving support have an incentive to shift their behavior in a manner congruous with domestic opinion. Domestic audiences can only learn about a combatant behavior through media, thus the more media attention, when a supporter is a democracy, the less likely that one-sided violence will occur.

H1: If the supporter of a combatant is democratic, the combatant is less likely to engage in one-sided violence.

The goals of a supporter are also likely to influence whether or not resources are expended to curtail a combatant's use of one-sided violence or if the supporter will turn a blind eye. In general when supporters are pursuing interests closer to their

⁸⁴ Pieriret, "External Support and the Syrian Insurgency," 2013
<<http://content.time.com/time/world/article/0,8599,2035347,00.html>>.

⁸⁵ See, for example, Tharoor, "WikiLeaks: The Saudis' Close but Strained Ties with Pakistan," 2010, for commentary on a WikiLeaks release that highlights Pakistan's significant foreign aid—and hence influence—to Pakistan.

core security concerns they will be more likely to ignore human rights violations--a high performing combatant is more important. This is likely when a combatant is pursuing a military rivalry--especially if the rival is in close proximity to the supporter. In other cases a supporter is likely to be more concerned with how a combatant accomplishes its task instead of merely being concerned with whether or not a combatant accomplishes a task.

H2: A supporter involved on the basis of military rivalry will have less influence on combatant behavior.

So far the theoretical discussion has centered largely on the supporter's preferences and characteristics, which generate incentives to expend resources to shift the behavior of a combatant. There is little reason to believe, however, that a combatant will be accepting of a supporter's influence and indeed recent research has looked at external support as a transaction (see, for example, Salehyan et al., 2009). Only under certain conditions will a combatant actually modify its behavior from what it would previously have done based on pressure from a supporter. Not only must a single supporter provide substantial resources that a combatant can't get elsewhere but it must also be facing a challenging opponent (a strong state, or strong competing rebel group) for it to need support. In general, a supporter will have influence when the rebel can't easily replace the resources it is getting from the supporter. This can occur because the rebel does not have a domestic resource base it can draw on—in which case its sole source of militarily necessary resources is

external support—or because there is only one dominant supporter providing support. This first scenario (rebel access to resources other than external support) is left to future work to investigate.

The first consideration is whether or not a supporter is reliant on a particular combatant. In most support relationships both sides “need” each other. The supporter is providing support not out of altruism but because it seeks to advance a particular foreign policy goal. Due to the consequences of providing material aid to combatant groups this goal is likely to be important. Because of this, a rebel may actually have influence over the supporter. The supporter needs the rebel to advance its foreign policy goal—perhaps more than the rebel needs the supporter. The greater the reliance of the supporter on the combatant the less credible its tools of control are. If, for example, a particular supporter needs a combatant to fight a critical opponent, threats of cutting support aren’t credible. These threats are more credible when the supporter is able to shift its support to another viable rebel group in the current conflict. In this case the rebel may be said to have competition from other rebel groups who all are likely to be seeking external aid. In addition, the smaller any particular rebel is relative to other rebels in a conflict the more reliant it is likely to be on a supporter.

H3: The more competition a rebel has from other rebels in a conflict, the more reliant it is on a particular supporter and the greater the influence the supporter will have.

The second consideration is the extent to which a combatant is reliant on a specific supporter. Combatants pull resources internally as well as externally. Internally groups can rely on domestic constituencies who can provide money or be taxed and loot-able resources such as drugs or alluvial gems. Externally, groups rely on one or more external supporters. If a group can rely on substantial internal resources or can "forum shop" among multiple different external supporters than any individual supporter is unlikely to have a significant influence over a combatant's behavior. Forum shopping is possible when there are multiple supporters who provide relatively equal types of support and are relatively equal in size/capability. By contrast when a group does not have substantial internal resources that it can draw upon and it has a single large provider of resources it is likely to be reliant on that support and thus the supporter will have greater influence over the combatant.

H4: A supporter will have greater influence over a combatant when it is the dominant supporter.

In summary, the main argument is that when a supporter has an incentive to change the behavior of a rebel and the capacity to do so, change will occur. Incentive is proxied by regime type (and the desired goal of providing support—pursuing a rivalry or doing something else). Capacity depends on the configuration of supporters and the reliance of the rebel on the supporter. When there is a single dominant supporter that supporter has more influence. This influence is reduced if the supporter

has no ability to shift his support to other rebel groups—no competition amongst rebel groups means the supporter has limited options.

Models, variables, and data

The data is setup as dyadic panel data. Each observation records one year of fighting between a single state and a single rebel. Multiple rebel groups fighting the same state in the same year show up as multiple observations. Data on the occurrence of armed conflict, as well as the actors involved is pulled from the Uppsala Conflict Data Program (UCDP). To match the availability of data, analysis is run from 1989 to 2012, and includes 1,193 observations. Of this 136 are dropped due to missing data, which leaves a final sample of 1,057. The model is specified in the following way:

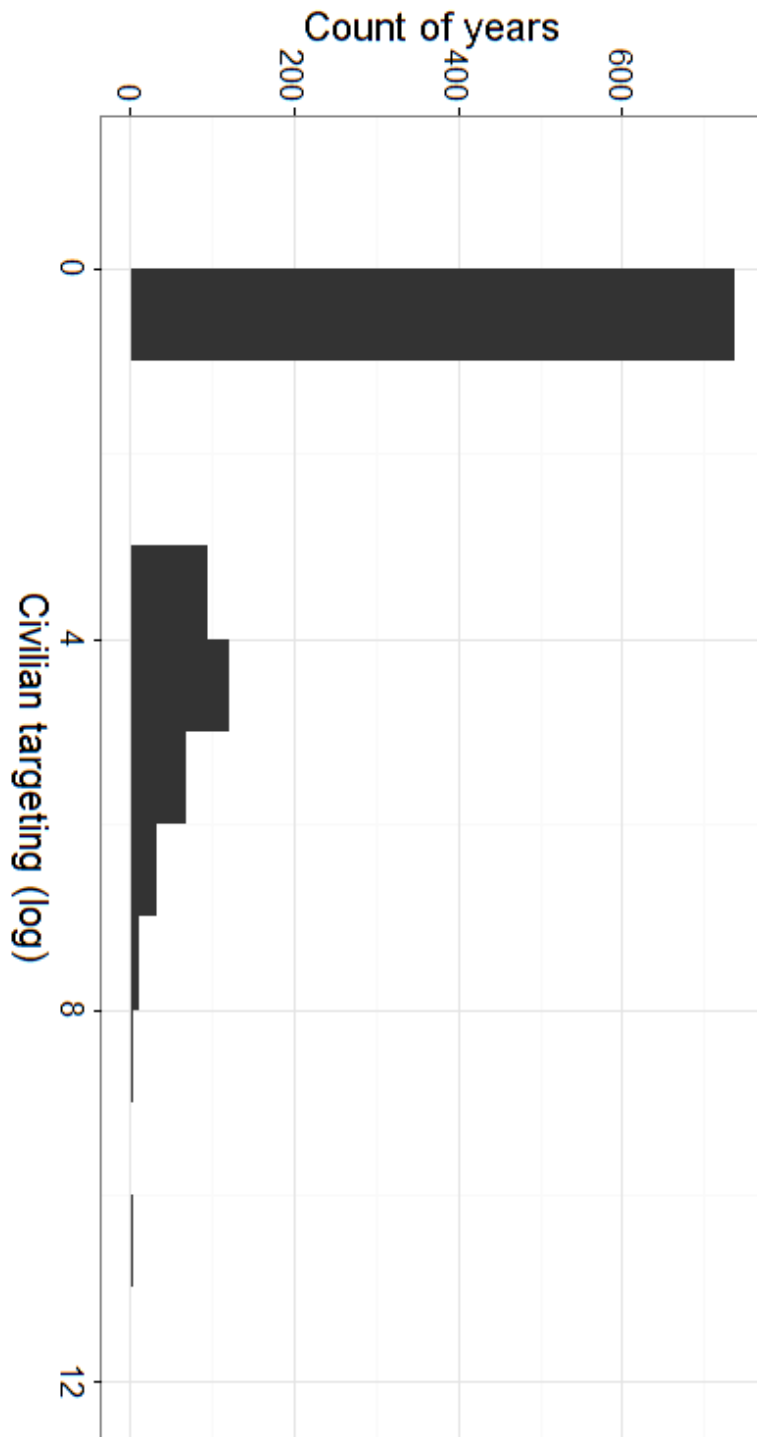
$$OSV_{d,y} = \alpha(SC1_{(d,y)} + SC2 + SC3_{(d,y)}) * RP_{(d,y)} + \beta(C_{(d,t)}) + \varepsilon$$

The dependent variable, recorded by dyad-year is the number of purposeful civilian fatalities inflicted by the rebel. This is a count variable that comes directly from UCDP. Because the dependent variable is count data—it only has positive integer values I fit a count model. To address the issue of over-dispersion I log the dependent variable. This substantially reduces over-dispersion concerns, but the dispersion parameter still remains substantially above one (a value of 3.37). To address this concern, and the concern that there are many zeros in the dependent variable (reflecting cases where a rebel did not target civilians in a particular year), which would bias standard errors, I use a negative binomial model.⁸⁶ Using this

⁸⁶ A quasi-poisson model, which allows the variance to be a constant multiple of the mean instead of assuming that they are equal, was also tried and produced qualitatively similar results.

approach the dispersion parameter is further reduced to 1.53. A histogram of rebel-initiated one sided violence years is available below. Figure V highlights the significant number of zeros, as well as the non-zero normalized distribution (it is still right-skewed).

Figure V: Distribution of yearly rebel civilian targeting



The heart of the analysis (the key independent variable) is a set of dummy variables recording the preferences and configuration of the supporters to a particular rebel group, *SC1*, *SC2*, and *SC3*, interacted with a variable capturing rebel configuration, *RP*. The equation also contains a number of control variables, *C*, that attempt to account for alternative explanations for the occurrence of one-sided violence. These variables capture the utility of one-sided violence to the rebel, the desire by the rebel to engage in one-sided violence, and a number of conflict characteristics that might promote or inhibit the use of one-sided violence. Each variable is recorded at the dyad-year level. The construction of the main independent variable, as well as the control variables are discussed in greater detail below.

Summary statistics for included variables are available in Table V below (variables are displayed without transformation; these variables are transformed when used in statistical analysis).

Table V: Summary statistics

Statistic	N	Mean	St. Dev.	Min	Max
One-sided violence	1,057	1.447	2.278	0.000	10.313
Supporter (dominant democracy, no rivalry)	1,057	0.027	0.163	0	1
Supporter (dominant democracy, rivalry)	1,057	0.017	0.129	0	1
Supporter (all others)	1,057	0.272	0.445	0	1
Rebel (power share of rebels)	1,057	0.769	0.336	0.010	1.000
Rebel (political wing)	1,057	0.682	0.916	0	2
Rebel (command)	1,057	0.843	0.671	0	2
State (force size)	1,057	10.641	1.089	5.861	12.525
Rebel (force size)	1,057	8.113	1.389	3.434	11.327
Rebel (power relative to state)	1,057	0.234	0.455	0.000	5.200
Rebel (shelter control duration)	1,057	4.961	5.225	1	32
Cumulative battle deaths	1,057	6.321	3.379	0.000	12.223
Rebel (excluded ethnic support)	1,057	0.270	0.508	0	3
Alluvial diamonds	1,057	0.159	0.366	0	1

Independent variables

The theory developed in this paper argues that a supporter will have an impact on rebel use of one-sided violence when it has an incentive to police rebel violence against civilians and when it has the capacity to influence the supported group. In order to capture the incentive to restrict rebel violence against civilians I rely on regime type as a proxy. Democracies (coded as a polity score greater than or equal to seven) but not dictatorships or mixed regimes (coded as a polity score of less than seven) have this incentive. I further argued that democracies are also divided in whether or not they are willing to expend capital to restrain a supported group. Democracies that intervene because they are seeking to do damage against a military rival are more likely to turn a blind eye in the face of rebel abuses than democracies that intervene for other reasons. To capture the presence of rivalry I also code whether or not a democratic supporter was involved in a militarized interstate dispute that produced fatalities with the state fighting the rebel in the previous two years. If this criteria is met the democracy is assumed to be involved for reasons of rivalry.

In addition to the incentive to reduce violence against civilians, a supporter must also have the capacity to exert influence. I argued that this was a combination of the configuration of supporters (the share of power that each supporter has relative to all other supporters) and the configuration of rebels (the share of power that each rebel has relative to all other rebels). The Composite Index of National Capability (CINC) score from the Correlates of War National Military Capabilities dataset was

used to identify supporter capability.⁸⁷ A supporter's share of power is recorded as the supporter's CINC score divided by the sum total of all CINC scores of supporters active in the current year. A supporter is coded as "dominant" if it had more than 50% of the total power (if there is only one supporter its score would be 100% as it had 100% of the total CINC score for that year). In order to code rebel power relative to other rebels I rely on rebel force size data from Aronson et al. (2015).⁸⁸ Multiple rebel groups are present when there is more than one rebel dyad involved in the same conflict. A conflict, according to UCDP, is defined based on the incompatibility that started it. All rebels in the country fighting because of the same incompatibility (e.g., autonomy of a specific territory, control over government, etc.) are counted as being part of the same conflict. For each conflict year relative rebel power is equal to the share of total forces that they possess in the conflict. As above, if there is only one rebel that rebel has 100% of the total forces.

These variables are combined into a set of interaction terms. First, I constructed three dummy variables capturing the configuration of support: (1) support from a dominant democracy (>50% of supporter relative power) that has no MIDs with the state fighting the rebel; (2) support from a dominant democracy (>50% of supporter relative power) that does have MIDs with the state fighting the rebel—a democracy pursuing a rivalry; and (3) support from a dominant non-democracy or non-dominant democracies. The excluded category is no support. This variable combines both supporter incentive and capability. As previously argued, democracies, due to domestic and international pressure, have an incentive to reduce rebel use of

⁸⁷ Data only goes through 2007. Data for 2008 to 2012 is duplicated from 2007. South Sudan (formed in 2011) was added for 2011 to 2012 and was given the same score as Sudan.

⁸⁸ Aronson et al., "Collective Action and Coercive Bargaining," 2015.

one-sided violence. They will only be able to exert influence, however, if they are the dominant supporter. These dummy variables are then interacted with the variable recording the rebel share of power in a dyad (a continuous variable that, as per the description above, ranges from 0-1). I further argued that a dominant democracy will see its influence reduced if no competition exists on the rebel side. This full interaction allows me to simultaneously capture the impact of supporter preferences, supporter configuration, and rebel configuration.

Control variables

Rebel use of one-sided violence against civilians does not occur in all conflicts. Its use is related to a number of specific factors including effective command and control, general relations with the civilian population, capability (including absolute capability as well as negative shocks), the method for rebel financing, and the extent to which the rebel and the state overlap in their civilian support bases. Each of these factors have been documented in existing work and I attempt to account for all of these competing explanations.

1. Command and control. In order to measure command and control I rely on data from the Non-State Actor (NSA) dataset.⁸⁹ Specifically, I use a variable that records how strong the rebel's central command is on a scale of 0-2. A value of "0" indicates fragmented control, while a value of "1" indicates strong centralized control. Unfortunately this measure is only available at the dyad level. Due to the time in-varying nature of the data

⁸⁹ Cunningham et al., "It Takes Two: A Dyadic Analysis of Civil War Duration and Outcome," 2009.

this control is at best an approximation of the average strength of a group's command control. The expectation is that the stronger the centralized control, all else equal, the less likely that a group will use one-sided violence.

2. General relations with society. To capture a rebel's desire to govern civilians—as opposed to just looting them—I include an indicator of whether or not a rebel had a political wing. This variable is also from the NSA dataset and so the same considerations apply. The expectation is that groups with a political wing have demonstrated interest in governing civilians post-conflict and thus will attempt to reduce the amount of one-sided violence they use.
3. Capability. Rebel capability is measured in two different ways. First, the number of state counterinsurgency forces deployed to combat the rebel is measured. This variable is logged to account for both its skewed distribution and the diminishing returns of additional troops. Second, I include the number of armed militants that the rebel has. This variable is similarly logged. Data for both of these factors comes from Aronson et al. (2015).⁹⁰ Deployed state force size does not generate a clear expectation—more troops may either cause competition between combatants over civilian support (with the expectation of increased OSV) or government forces may be able to protect civilians (reducing OSV). Following existing literature, the expectation is that as rebel force size grows its capacity to target non-combatants increases, which, all else equal, should lead to

⁹⁰ Aronson et al., "Collective Action and Coercive Bargaining," 2015.

increased OSV. I also record the rebel force size relative to the state.

Although increased rebel force size allows greater opportunity to engage in OSV, greater power relative to the state should reduce the need to do so.

4. Capability shocks. My measure of capability shocks relies on the duration that a rebel has not experienced an adverse change in its access to shelter. An adverse change in shelter—such as being kicked out of safe houses, controlled cities, or rural bases—may necessitate increased use of one-sided violence to regain shelter. Therefore, the expectation is that the longer a rebel has maintained its current level of shelter the less the amount of OSV that will occur. Data for this variable is pulled from the same source as rebel and state force size. I also use one other measure—the logged number of cumulative battle deaths—to try to account for battle-related incentives for rebels to target civilians. This data comes from UCDP. The expectation is that the more battle-deaths that have occurred the greater the need to forcibly recruit from civilian populations, and hence the more OSV that will occur.
5. Differing civilian support bases. To measure the presence of different civilian support bases I rely on the Ethnic Power Relations data on ethnic support for rebels.⁹¹ This data records not only if a rebel group relies on a civilian support base but also if that ethnic group is politically excluded from state power. This dummy variable thus captures the situation where the rebel both relies on a civilian population and this civilian population is distinct

⁹¹ Wucherpfennig et al., “Ethnicity, the state and the duration of civil war,” 2012.

from the state. The expectation is that excluded ethnic support will lead to greater targeting of state civilians.⁹²

6. Rebel funding sources. Existing work has found a strong relationship between groups' funding sources and the use of OSV. When a rebel relies on lootable resources (such as alluvial diamonds) it is likely to recruit individuals who are mostly interested in profit and not in advancing the rebel's ideology. These "mercenaries" are more difficult to control and more likely to engage in independent looting and violence against civilians. To measure this I include a dummy variable that records the presence of alluvial diamonds in the conflict zone. When alluvial diamonds are present I expect that OSV is more likely to occur.

Endogeneity concerns

The model is currently constructed to predict rebel use of one-sided violence in year t using variables also recorded in year t . This naturally raises the concern of reverse causality. Instead of the independent variables causing rebel use of one-sided violence, one-sided violence causes observation of our independent variables. There is a theoretic reason to believe that this reverse causality may be the case as well. Democracies, because of the consequence of being associated with a rebel using one-sided violence, may choose to support only groups that do not use one-sided violence. This democratic selection would then explain why democracies are associated with reduced rebel use of civilian targeting. An ideal way to account for this potential problem is identify when support occurred in relation to the use of one-sided

⁹² In future drafts I will also attempt to account for a state's ethnic support.

violence. Unfortunately, data limitations prevent this straightforward solution. Fine-grained temporal data on the occurrence of one-sided violence in Africa is available, but no information about when, in a year, supporters intervened is not available. In order to address this problem I rely on two different approaches.

First, I run a set of simple logit models (with robust standard errors clustered at the dyad-level) using rebel-initiated one-sided violence (logged) as the independent variable and the occurrence of various types of support as the dependent variable. This will test the simple story: is one-sided violence correlated with the occurrence of specific types of external support. One-sided violence is not a significant predictor of the occurrence of dominant democratic support with or without the presence of military rivalry (P-values of 0.23 and 0.17 respectively), but is a significant predictor of the occurrence of all other types of support (P-value of 0.05). This provides a preliminary test of whether or not the story of reverse causality is likely to be true. These results suggest that concerns of endogeneity may be overstated. In neither case of democratic support is the P-value approaching statistical significance (in the first case the value is insignificant even in a one-tailed test; in the second case the coefficient is actually positive).

Second, a standard approach is to lag the independent variable. By doing this concerns of reverse causality are reduced. I use a related approach that better conforms to the theory being tested. My main expectation is that following the occurrence of external support by a dominant democracy not involved for reasons of rivalry to a rebel that the supporter is not reliant on, rebel use of one sided violence will decrease. In order to test this I introduce dummy variables that are flagged for all

years after the first year of support by a particular supporter configuration. So, for example, if a strong democracy not pursuing a military rivalry provides support in 2004 for a conflict that starts in 2002 and end in 2008, the variable will have a value of “1” for years 2005-2008, and a “0” for years 2002-2004. In this example, 2005 is the first year post-support. These dummy variables are then interacted with the variable recording the presence of competitors to the current rebel (a value of “0” for no competition and a value of “1” for the presence of other rebels that have at least 25% of relative rebel power in the current conflict). This setup allows me to identify if rebels use less one-sided violence in all years of conflict after a particular supporter configuration is involved.⁹³ The results of this analysis, presented in more detail at the end of the section below, support the preliminary logit results above in suggesting that reverse causality is not a significant driver of my results. Dominant democracies that are not pursuing military rivalries still appear to exert a dampening influence on rebel use of one sided violence compared to all other situations of external support.

Future work can attempt to address this endogeneity problem by thinking of specific types of foreign support as a treatment. (Specifically, foreign support by a dominant democracy not pursuing a military rivalry to rebels that the supporter is not reliant on.) Dyad years would be matched based on recent history of the use of one-sided violence and the incentive to use one-sided violence. The treatment effect would then be tested on matched years. To determine if specific types of supporter and rebel configurations do, in fact, impact rebel use of one-sided violence.

⁹³ This approach still runs into data problems because we lose the first year of external support.

Results

The full results are available in Table VI below:

Table VI: Full model results

	One-sided violence (logged)
Rebel (power share of rebels)	0.123 (0.305)
Supporter (dominant democracy, no rivalry)	-3.527*** (1.269)
Dominant democracy * rebel power share	3.455*** (1.257)
Supporter (dominant democracy, rivalry)	0.571 (0.384)
Dominant democracy + rivalry * rebel power share	— (—)
Supporter (all others)	0.337 (0.355)
All other supporters * rebel power share	-0.144 (0.439)
Rebel (political wing)	-0.282** (0.119)
Rebel (command)	-0.173 (0.186)
State (force size)	-0.229* (0.126)
Rebel (force size)	0.316*** (0.113)
Rebel (power relative to state)	-0.647** (0.288)
Rebel (shelter control duration)	-0.021 (0.021)
Cumulative battle deaths	0.092*** (0.033)
Rebel (excluded ethnic support)	-0.111 (0.183)
Alluvial diamonds	0.316 (0.312)
Constant	-0.056 (1.203)
N	1,057

* p < .1; ** p < .05; *** p < .01

Robust standard errors clustered on dyad.

In general the results support the hypotheses presented. Strong democracies involved for reasons other than pursuing a rivalry are associated with rebels that engage in significantly less violence than the comparison category (no support). In addition, not only does a strong democratic supporter reduce the amount of one-sided violence that a rebel engages in compared to rebels receiving support from other sources, it actually pushes this number below what a comparable rebel without external support (found in the literature to be associated with civilian targeting) would produce. This provides strong support for H1. In addition, the interaction with the rebel's share of power is also significant and positive. As per expectations this suggests that the less competition there is on the rebel side—and thus the more reliant the supporter is on a single rebel—the smaller the impact of a strong democratic supporter on reducing rebel use of one-sided violence. As a rebel approaches 100% relative strength (indicating no competition) the impact of a strong democratic supporter becomes indistinguishable from situations where the rebel gets no external support. Rebel relative power in the absence of support, however, does not impact civilian targeting. This provides initial evidence that this variables works through its hypothesized mechanism: reducing supporter impact. Along with the sign and significance of the interaction, these results provide support for H2.

In addition, as per expectations, strong democratic supporters pursuing military rivalries do turn a blind eye to rebel targeting of civilians. Their impact is statistically indistinguishable from cases where the rebel receives no support. (Data limitations—specifically limited occurrence of this type of support across the range of

rebel power share—prevented estimation of the coefficient and standard error for the interaction.) Even when a supported rebel has significant competition, however, the sign of this variable is positive and approaches statistical significance at conventional levels (P-value of 0.12). This finding also provides support for H3—the democracy’s incentives matter. Finally, the insignificant and positive coefficient on support from non-democracies, and supporter configurations without a dominant democracy, provides support for H4. The interaction term between other supporter configurations and rebel relative power is highly insignificant. (This also provides further support for the role played by rebel competition.) In addition, the sign and magnitude of the coefficients for dominant democracies pursuing rivalry and other supporter configurations is similar, suggesting that the presence of rivalry causes democracies to act like other regimes with respect to preferences about rebel use of one-sided violence.

All together these findings provide strong support for the theory outlined in this paper. All three of the hypothesized factors matter: (1) a supporter needs to have the incentive to influence a rebel’s behavior, (2) the rebel needs to be reliant on the supporter, and (3) the supporter can’t be reliant on a single rebel.

Figure VI: Preference, configuration, and violence against civilians

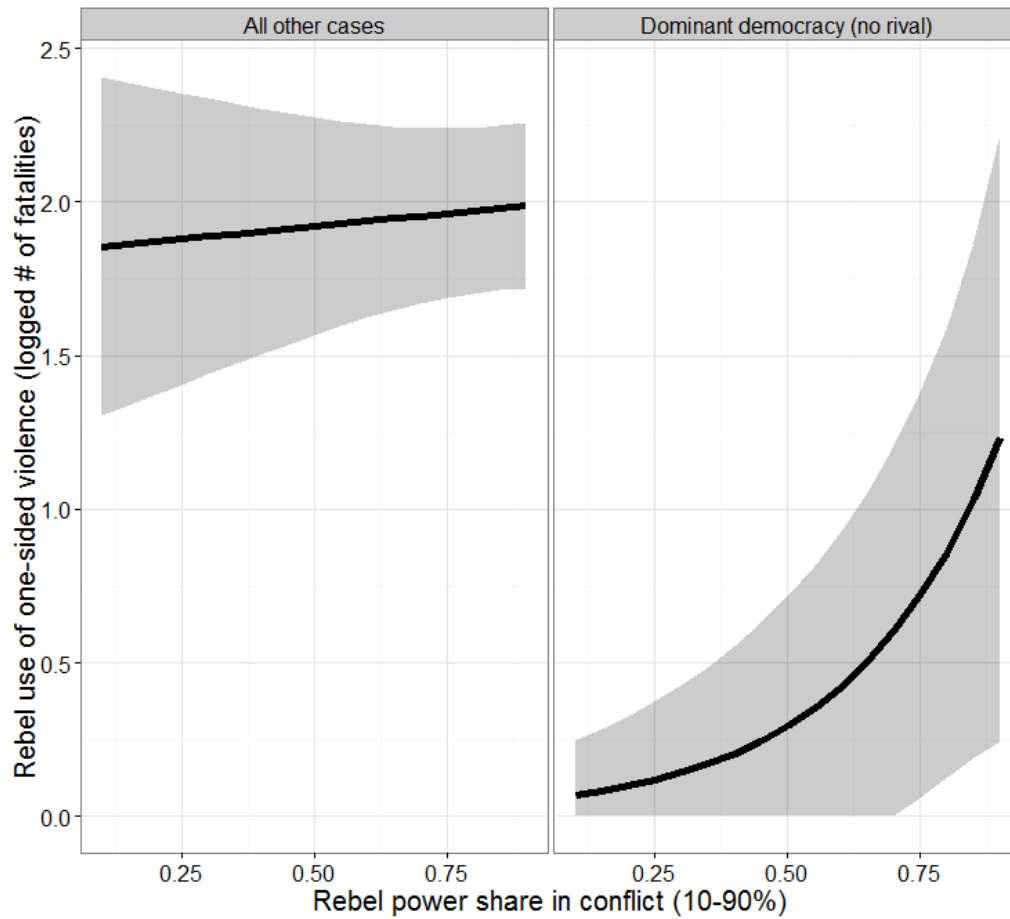


Figure VI above shows the substantive impact of dominant democratic support involved for reasons other than rivalry, and supporter configuration. The figure is split into two graphs. The first graph shows the predicted values for situations when no dominant democratic supporter is present (or a dominant democracy pursuing a rivalry). The second graph shows the predicted values for when a dominant democratic supporter that is not pursuing a rivalry is present. The y-axis for each graph shows the logged predicted number of purposeful civilian fatalities due to rebel activity. Higher numbers indicate decreased regard for civilian welfare. The x-axis for each graph indicates the share of total forces in a conflict that the current rebel possess. In the graphs this number ranges from 10% to 90%. As we can see, the logged number of civilian fatalities is significantly higher when an interested dominant democracy is not present as a supporter. Rebel relative power share has little impact because supporters are not interested—or do not have the ability—to influence the rebel. On the other hand, when a dominant democracy is present we see a substantial, and statistically significant, reduction in the number of purposeful civilian fatalities. Finally, this reduction in rebel use of civilian targeting drops off and then disappears as the rebel increases in relative power. The dominant democratic supporter is reliant on a single rebel and thus has little credibility when it comes to shifting support to other rebel groups.

Addressing endogeneity

The base model is re-run using a modified set of independent variables. Specifically, instead of using a variable recording the presence of particular supporter

configurations in each year I use a dummy variable capturing all post-support years (and not including the first year that support occurred) interacted with a variable indicating that a rebel has “competition”). Results are available in Table VII below.

Table VII: Post-intervention results

	One-sided violence (logged)
Rebel (has competitors)	0.178 (0.243)
Supporter (dominant democracy, no rivalry)	-0.548 (0.461)
Dominant democracy * has competitors	-14.860*** (0.870)
Supporter (dominant democracy, rivalry)	0.198 (0.560)
Dominant democracy + rivalry * has competitors	— (—)
Supporter (all others)	0.067 (0.245)
All other supporters * has competitors	-0.140 (0.374)
Rebel (political wing)	-0.288** (0.122)
Rebel (command)	-0.168 (0.194)
State (force size)	-0.256** (0.124)
Rebel (force size)	0.349*** (0.110)
Rebel (power relative to state)	-0.626** (0.280)
Rebel (shelter control duration)	-0.022 (0.021)
Cumulative battle deaths	0.100*** (0.033)
Rebel (excluded ethnic support)	-0.068 (0.176)
Alluvial diamonds	0.327 (0.304)
Constant	0.025 (1.164)
N	1,057

* p < .1; ** p < .05; *** p < .01

Robust standard errors clustered on dyad.

The findings are similar across the board. In years following support by a dominant democracy not pursuing a military rivalry to rebels that do not have

competition one-sided violence is reduced compared to no support (negative coefficient), but this result is not statistically significant (P-value of 0.24). Similar support to rebels that do have competition, however, is associated with significantly less use of one-sided violence by the rebel and is highly significant. There may still be selection bias involved—democracies never intervene in specific cases—but these results at least alleviate concerns that democracies do not intervene in specific years where a rebel does make use of one-sided violence.

Conclusion

This work has a number of important scholarly as well as policy implications. Existing academic work has argued that the presence of external support in general increases rebel capabilities and reduces the incentive of rebels to rely on civilians for support. These two factors work together to produce greater rebel use of one-sided violence. This finding, however, is slightly attenuated by regime type: democratic supporters appear to reduce rebel use of one-sided violence compared to support from other regimes. This paper further refines our understanding of supporter influence in two ways: First, it argues that not all democracies are equally likely to shun rebel use of one-sided violence—this casts doubt on explanations privileging normative considerations. Second, it introduces rebel and supporter configuration as a key indicator of when a supporter will have the ability to influence a rebel towards its desired foreign policy goals.

Both advances help us better understand the role of regime type in international interactions as well as the conditions under which principles are able to

influence agents. When no single dominant supporter is present, the rebel is not reliant on the dictates of a particular supporter. If any one supporter reduces the amount of support provided the rebel will not be significantly hampered. This reduces the influence of any one supporter. The configuration of rebels has similar impact. If only one rebel is present, supporters will not be able to shift their support to another proxy and still hope to achieve a goal. Competition on both the support and demand side of the equation is thus important to understanding when a principle will be able to influence its agent. State supporters can inadvertently reduce their ability to control a proxy if other supporters are present or if they rely only on a single rebel to fulfill policy goals.

This set of findings also has clear policy implications. Maintaining control over a proxy is, in most cases, a vital aspect of providing external support. In most cases states care not just about a particular rebel group doing well, but also about the rebel group fulfilling the foreign policy goals of the supporter. In the case of democratic supporters that also means curtailing the use of one-sided violence. The results of this analysis suggest that it is possible for democratic supporters to limit a rebel's use of one-sided violence, but only under specific conditions. The main consideration is that the supporter should be in a dominant position vis-à-vis other supporters. If a rebel is being supported by a multiple equivalent supporters, and only one of them seeks to curtail rebel use of one-sided violence it is unlikely that the rebel will be sufficiently reliant on the democratic supporter to do so. Democracies seeking to maximize their influence, then, should make sure that no regimes with strongly competing foreign policy goals are involved as supporters. The supporter, in essence,

needs to edge out the competition. Similarly, too much reliance on a single rebel will create a situation where the dominant democracy is not sufficiently credible in its threats to reduce support or shift support to another proxy such that no substantial change in behavior will occur.

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