Convincing Them to Fight: How Rebel Groups Choose Their Recruitment Tactics

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Abstract:

Why do some rebel groups rely heavily on material incentives for recruitment, while others depend more on ideological appeals? Much of the literature focuses on differences in the recruitment tactics between "resource rich" and "resource poor" rebels. In this article, I investigate how the material and ideological resources available to rebel groups, and their long-term goals, shape their recruitment strategies. Using novel data on the persuasive recruitment strategies of over 220 rebel groups active across the world, I find strong evidence that groups that exploit a greater breadth of natural resources are more likely to recruit with material incentives. However, I find that while lootable resources affect recruitment patterns, non-lootable resources do not. Surprisingly, I do not find clear evidence that existing ethnic and religious ties help facilitate ideological-based recruitment. Finally, the results indicate that rebel movements with secessionist aims are more likely to rely on ideological-based recruitment strategies.

A central question in the study of civil wars is how rebel groups convince individuals to join their ranks, despite the dangers typically associated with doing so. Armed movements face a collective action problem, as civilians could decline to participate to avoid the risks of death or imprisonment, while still benefiting from the political and/or economic benefits provided by rebels. Militant organizations offer a variety of ideological and material incentives (e.g., Lichbach 1994, 1995), tap into social networks (e.g., Della Porta 1988; Larson and Lewis 2018), and/or use coercion and force (e.g., Eck 2014) to try to overcome these barriers and grow their ranks. These decisions are expected to affect the behavior, longevity, and success of rebel movements (Weinstein 2005, 2007).[1]

Given that recruitment decisions are consequential, it is important to understand why rebel groups choose certain recruitment strategies over others. The decision of what combination of ideological appeals (i.e., calls to mobilize around specific political, economic, and or/social grievances) and/or material incentives (e.g., salaries or the promises of loot) is expected to be particularly meaningful. This is because material incentives, relative to ideological appeals, tend to attract opportunistic joiners who are less committed and more ill-disciplined than their ideologically motivated counterparts (Altier et al. 2017; Humphreys and Weinstein 2006; Oppenheim et al. 2015; Oyefusi 2008; Weinstein 2005, 2007). Why then do some rebel groups rely heavily on material incentives for recruitment, while others depend more on ideological appeals?

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[1] Rebel mobilization processes that occur before fighting escalates are also consequential (Braithwaite and Cunningham 2020; Lewis 2020).

Scholars have proposed a variety of answers to this question, including the initial economic and social endowments available to groups (Gates 2002; Weinstein 2005, 2007), the demographics they are attempting to mobilize (Lichbach 1994), rebel institutions (Arjona 2014), territorial control and geographic constraints (Gates 2002; de la Calle and Sánchez-Cuenca 2012), and state capacity (Herbst 2000).

I build off these works to examine how the economic and social resources available to rebel organizations, as well as their long-term goals, shape their recruitment strategies. I expand on prior work about economic endowments and recruitment (Weinstein 2005, 2007), arguing that natural resource wealth itself is not the only driver of material recruitment strategies, but rather, it is the breadth of groups' operations, and the specific types of natural resources they exploit. In line with previous scholarship (Weinstein 2005, 2007), I also expect that existing religious and ethnic ties provide rebel leaders with a stronger foundation to employ ideological recruitment appeals. Finally, I build off earlier research, which largely focuses on the resources available to rebels, to examine how groups' long-term goals affect their recruitment strategies. I expect that secessionist rebels will be more likely to rely on ideological appeals, relative to material incentives, as part of efforts to gain legitimacy in the international community.

However, despite this theoretically rich literature, we currently lack systematically conducted, cross-rebel group quantitative analyses on the factors that driven rebel groups to choose certain persuasive recruitment tactics over others. Such quantitative analyses exist for the use of forced recruitment practices (e.g., Beber and Blattman 2013; Haer, Faulkner, and Whitaker 2020; Sawyer and Andrews 2020), but not persuasive recruitment appeals. This empirical gap is significant as rebel organizations

make a diversity of recruitment appeals (Humphreys and Weinstein 2008) and some groups choose starkly different recruitment strategies, even when operating under similar conditions (Herbst 2000). Thus, generalizing from a small number of cases could be problematic.

To fill this gap, I rely on novel data from the Rebel Appeals and Incentives Dataset (RAID), which contains information on the persuasive recruitment strategies rebel organizations that were active across the world during the period of 1989 to 2011 (Soules 2023). I find support for my argument that variation in the types of natural resource exploitation matter for shaping recruitment strategies. I find that groups that profit from a greater breadth of natural resources are more likely to employ material incentives over ideological appeals for recruitment. However, I find that while profiting from lootable resources increases reliance on material incentives, exploiting non-lootable resources does not, suggesting the types of economic endowments available to groups matter, not just their presence of absence. I also find strong evidence that secessionist groups rely more heavily on ideological appeals than material incentives for recruitment. Finally, diverging from existing literature, I do not find consistent evidence that existing religious and ethnic ties facilitate the use of ideological recruitment appeals.

This paper offers several contributions. First, I make a theoretical contribution by examining how variation in the types of resource wealth shape recruitment tactics. Prior work tends to focus on differences between "resource rich" and "resource poor" rebels (Weinstein 2005, 2007), despite there being significant variation in the types of natural resources group exploit, and the ways in which they exploit them (e.g., Walsh et al. 2018). While Weinstein (2005, 599) discusses "lootable" resources in broad terms, his

theory does not clearly distinguish between wealth generated from lootable and non-lootable natural resources. However, rebels still profit from both (e.g., Walsh et al. 2018), and thus, it is important to examine if they have differential effects on groups' recruitment.

Second and relatedly, I make another theoretical contribution by discussing how the goals of rebel organizations affect their recruitment. Scholars tend to focus on how the resources available to groups influence their recruitment strategies. However, I expect that rebels will also choose recruitment strategies that help achieve their goals. In doing so, I hope to highlight the agency that rebel groups have in choosing their recruitment appeals (Eck 2009), which goes beyond just the material and social resources available to them.

Third, I make an empirical contribution by providing the first, to my knowledge, cross-group, quantitative analysis of why rebel organizations choose to rely more on ideological appeals or material incentives for recruitment. This is significant given that while I find support for prior arguments related to economic endowments, I do not find the same evidence for the role of social endowments. Fourth, to make empirical claims about the consequences of rebel recruitment strategies, we need to understand the factors that drive recruitment practices in the first place. Knowledge that certain factors systematically affect choices in recruitment strategies should shape our analysis of the consequences of these practices.

The rest of the paper proceeds as follows. I begin by discussing how resource endowments, and the variation in the types and operations related to these endowments, influence recruitment processes. This is followed with a related discussion of how

existing ethnic and religious ties affect recruitment strategies, as well as the role of the

long-term goals of militant organizations. I then describe the research design and present

the results. I include a variety of robustness checks to assess the strength of the findings. I

conclude by discussing the implications of these findings and potential directions for

future research.

Initial Endowments

As noted earlier, Weinstein (2005, 2007) argues that the economic and social

endowments available to rebel groups during their formation are the primary drivers of

their recruitment tactics. I discuss the role of economic and social endowments, and

variation in these resources, in shaping the recruitment decisions of rebel organizations.

Economic Endowments

Again, groups with economic endowments, such as money derived from the

exploitation of natural resources or external support from other governments, face the

"rebel resource curse" (Weinstein 2005, 2007). However, Weinstein explains that groups

with access to material resources still have the incentive to utilize them for recruitment so

that they can quickly mobilize a large number of individuals and prevent potential

recruits from joining other armed organizations. This leads to the hypothesis that:

*H1: Rebel groups with access to natural resource wealth will rely more heavily on
material incentives, relative to ideological appeals, for recruitment.*

The depth of groups' economic operations also matters. While some groups profit off only a single natural resource, others deal in multiple (e.g., Walsh et al. 2018). A more diversified portfolio of natural resources not only provides groups with more funds overall but gives them something to fall back on if the government successfully disrupts one type of operation (Conrad et al. 2019). This higher and more consistent flow of income facilitates the use of material recruitment incentives by providing a steadier and larger pool of resources from which recruits can be paid. Therefore, I expect that:

H2: Rebel groups that profit from a larger number of natural resources will rely more heavily on material incentives, relative to ideological appeals, for recruitment.

Prior work largely considers economic resources in the aggregate, despite signification variation in both the types of natural resources groups exploit and the ways in which they exploit them (e.g., Walsh et al. 2018). This variation has important consequences for their behavior (Whitaker et al. 2019). I expect that lootable resources facilitate material-based recruitment strategies more than non-lootable resources. Lootable and non-lootable resources affect conflict onset, conduct, longevity, and recurrence in different ways (e.g., Clayton 2016; Haer et al. 2020; Ross 2004; Roy 2018). The lootability of a natural resource is defined by "the ease with which small groups of unskilled workers can extract the resources from the ground" (Roy 2018, p. 3). Lootable resources, such as gemstones and drugs, require cheap, unskilled labor and basic tools to extract (Roy 2018). Non-lootable resources, including crude oil and natural gas, often require significant amounts of time, civilian experts, and sophisticated equipment (Roy 2018).

Despite differences in the ease at which these types of resources can be appropriated, rebel groups still frequently profit from both lootable and non-lootable resources (e.g., Walsh et al. 2018). However, there are a variety of reasons why we should expect that these two categories of resources affect recruitment tactics differently.

First, consider that rebels are typically able to control operations involving lootable resources more directly. Given that extracting these resources requires relatively little technical skill or knowledge, rebel groups can depend more heavily on their own members, as opposed to civilian collaborators, to engage in these operations (Haer et al. 2020). Thus, rebel leaders can use part of the revenue to "hire" rebel recruits to participate in these operations, instead of civilian experts. Put differently, individual rebels can serve as a source of cheap labor when extracting lootable resources. This incentivizes rebel groups to employ material recruitment incentives. Relatedly, because of the high start-up costs of extracting non-lootable resources (Roy 2018), it could be difficult for groups in their formative stages to receive enough money from these operations to extensively recruit with.

Second, given the ease by which an individual, or small number of individuals, can extract lootable resources, a group dealing in these goods risks members stealing or misappropriating some of these resources. Consequently, when groups exploit lootable resources, it is important for rebel leaders to pay members a consistent salary, so they are not dissatisfied and are less tempted to take additional resources from the group. Third, because lootable resources are less difficult to extract, it is easier for groups to avoid government interference in these operations (Roy 2018). This ensures a steadier stream of

income for rebels, which puts them in a better position to offer material incentives to potential recruits.

Overall, the appropriation of lootable resources, relative to non-lootable resources, facilitates the use of material recruitment incentives because they can be used to hire cheap labor to continue the extraction of these resources; groups want to avoid misappropriation by opportunistic members; and they provide a steadier stream of income. This leads to my next hypothesis that:

H3: Rebel groups with access to wealth from lootable resources will rely more heavily on material incentives for recruitment, relative to groups that profit from non-lootable resources or that do not exploit natural resources at all.

Social Endowments

However, when groups do not have access to such significant material resources, they can instead rely on shared ideological or identity-based ties to mobilize recruits (Weinstein 2005, 2007). Groups lacking such resources must be able to signal to potential joiners that they can credibly deliver future benefits to recruits if they are willing to forgo short-term gains (Weinstein 2005, 2007). Rebel leaders can increase the credibility of these claims by taking advantage of high levels of intragroup trust and drawing on shared ethnic and religious identities to mobilize recruits.

Armed groups that are socially or ideologically homogenous do not always recruit exclusively with ideological appeals. For instance, both Boko Haram in Nigeria and al-Shabaab in Somalia extensively employ material incentives, despite both having clearly defined religious ideologies (Soules 2023). Thus, the presence of shared ethnic or religious ties does not guarantee that rebels rely heavily on ideological recruitment

appeals. However, socially homogenous groups are still better positioned to make ideological appeals because these appeals rely more on trust, and trust tends to be higher among members of the same social group (Weinstein 2005, 2007). Therefore, my next hypothesis is that:

H4: Rebel groups with access to ethnic or religious networks will rely more heavily on ideological appeals, relative to material incentives, for recruitment.

Goals

Militant groups tailor their behavior based on how they expect civilians (e.g., Huber 2019) and governments (e.g., Stanton 2013) to react to maximize the probability that they achieve their goals. Thus, rebels will likely calculate which recruitment strategies help best achieve their goals. Secessionist movements, as opposed to center-seeking groups that want to overthrow the national government, are particularly incentivized to make ideological appeals because of the need to be perceived as legitimate and the need for committed recruits.

Need for Legitimacy

Secessionist movements build positive reputations in a variety of ways, including through compliance with international law (Fazal and Konaev 2019; Jo 2015), provision of inclusive public goods to civilians (Stewart 2018), and restraint in attacking civilians (Fazal 2013). Secessionist rebels engage in "good behavior" because they need to signal their legitimacy and ability to govern to the international community (Fazal 2013; Jo 2015; Stewart 2018). This desire for legitimacy by secessionist groups is driven by a need

for international recognition of their claims of territorial sovereignty (Coggins 2011; Mampilly 2012).

Stewart (2018) notes that such behavior is also important for building positive, domestic reputations. Thus, to achieve support, secessionist groups must foster strong, positive relationships with civilians and maintain positive reputations with the international community.

Experimental evidence reveals that international audiences perceive the legitimacy of rebel movements differently based on their behavior (Arves et al. 2019; Flynn and Stewart 2018). Manekin and Wood (2020) find through experimental evidence that individuals are more likely to perceive the goals of rebel organizations as legitimate when they employ female combatants. The authors find support for the mechanism that individuals tend to view female rebels as less motivated by self-interest than male combatants, which drives perceptions that groups employing female fighters are more legitimate.

Thus, there is strong evidence that (1) secessionist rebels are particularly concerned with their reputations, (2) that rebels can engage in behavior that improves their reputations with external audiences, and (3) audiences view rebels as more legitimate when they perceive them to not just be acting in their own self-interest. Based on this, I expect that rebel groups with secessionist goals will rely more on ideological recruitment appeals. Indeed, Toft (2012) finds that secessionist wars are more related to political, rather than economic, grievances.

Armed groups that focus on the extraction of natural resources face significant reputational risks. These groups may be viewed as spreading violence for self-gain and

can struggle to garner both domestic and international legitimacy. Groups that rely

heavily on economic endowments for recruitment, such as the Revolutionary United

Front (RUF) in Sierra Leone (Abdullah 1998; Weinstein 2005), and the Alliance Touareg

Nord Mali pour le Changement (ATNMC) in Mali (Souaré 2010; Westerfield 2012), are

often publicly labeled as criminal organizations by the governments they fight.

Need for Commitment

Secessionist groups need committed, well-disciplined recruits to help maintain their

legitimacy. These moevements are less likely to attack civilians in an attempt to maintain

their legitimacy (Fazal 2013). Groups that tap into social endowments for recruitment

tend to treat civilians better because they have members who are more committed to the

long-term goals and reputations of the organizations they fight for (Weinstein 2005,

2007). Thus, because secessionist groups have a vested interest in treating civilians well

to maintain their legitimacy, it behooves them to recruit with ideological appeals so that

they draw in recruits who are restrained in their behavior.

Alternative Explanation

The role of secessionist aims in acquiring access to natural resources is also important

to consider. When natural resources are located primarily in a specific region of a

country, local populations could have the incentive to fight for independence so that they

have exclusive access to these resources (Ross 2004). The possibility then arises that

secessionist organizations engage in conflict to acquire natural resources. One could

argue that this means secessionist groups will attract uncommitted recruits who are only

seeking to profit from the exploitation of natural resources. By extension, such groups might care less about their reputations and thus do not seek to build strong ideological bases, reducing the need to employ ideological recruitment appeals.

However, there are several problems with this argument. First, while some groups might fight for independence to gain control over resource-rich regions, rebels can also seize power from the central government to use existing structures to extract rents from natural resources. Thus, secessionist groups are not unique in their aims of controlling natural resources.

Second, the presence of natural resources in an area does not necessarily mean that rebel groups are able to extract these resources, as certain types of resources, such as oil, require significant capital to extract (e.g., de Soysa and Neumayer 2007). Therefore, we should not assume that rebels fighting over control of a resource-rich region have the resources to offer material recruitment incentives. Third, even if some secessionist groups are primarily interested in acquiring rents from natural resources, they still need to be perceived as legitimate to gain international recognition of their claims to sovereignty, and thus, have the incentive to employ ideological recruitment appeals.

Fourth, particularly in secessionist wars, there can be grievances related to the exploitation of natural resources that observers could conflate with loot-seeking behavior. Using the case study of the Free Aceh Movement (GAM) in Indonesia, Aspinall (2007) argues that resource extraction can trigger violent political conflicts when relevant collective action frames, such as shared ethnic identity, already exist. Aspinall explains that while conflict did not breakout in other resource-rich regions of Indonesia, it did in Aceh where there were already other, long-standing grievances. Aspinall further notes

that GAM emphasized the Indonesian government's exploitation of Aceh's natural resources at the expense of the region. Other rebel groups mobilize around grievances related to the external exploitation of natural resources as well (Soules 2023). Thus, secessionist rebels might also have ideological motives, not just material ones, for trying to capture natural resources in their region.

Overall, secessionist groups should still be more inclined to rely on ideological appeals for recruitment as part of their efforts to build positive reputations. Based on this, the final hypothesis is that:

H5: Secessionist rebel groups rely more heavily on ideological appeals, relative to material incentives, for recruitment.

Research Design

To test the hypotheses, I employ data from the Rebel Appeals and Incentives Dataset (RAID) (Soules 2023), which contains information on the recruitment practices of 232 rebel organizations, active across the world, between the period of 1989 to 2011.[2] The sample of groups is derived from the Non-State Actor (NSA) dataset (Cunningham, Gleditsch, Salehyan 2013). Due to information availability, the main version of RAID has a time-invariant, cross-sectional structure. Thus, the unit of analysis for this study is the rebel group.

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[2] However, data on natural resource exploitation was available only for 223 of these organizations.

Dependent Variable

The hypotheses concern rebel groups' decision to rely more on ideological or material appeals for recruitment. Thus, I employ RAID's measure of the degree to which a militant group relies on ideological appeals, relative to material incentives, for recruitment. This is a five-point ordinal indicator, capturing whether an organization relies exclusively on material incentives; mostly on material incentives and some ideological appeals; a relatively even mix of the two; mostly on ideological appeals and some material incentives; or exclusively on ideological appeals. Higher values of this variable correspond to a higher percentage of a group's persuasive recruitment appeals that are ideologically based. This variable was built based on evidence of the types and relative frequency of recruitment appeals employed by groups (Soules 2023). I employ ordered logistic regression analysis to test all the hypotheses because the dependent variable is ordinal.

Independent Variables

To test the hypotheses related to economic endowments, I use data from the Rebel Contraband Dataset (RCD) (Walsh et al. 2018). The RCD contains data on the types and methods of natural resource exploitation by rebels. It contains information on 26 types of natural resources, and whether groups exploited any of these resources through smuggling, extortion, theft, and/or booty futures. The RCD contains groups from the UCDP dyadic dataset that were active between 1990 and 2012, and thus, pairs well with RAID.

To test the first hypothesis, I employ data from the RCD to construct a binary indicator of whether a group profited from any type of natural resource, in any way, during its lifespan. For Hypothesis 2, I employ a count of the total number of natural resource-based operations (e.g., smuggling diamonds, extorting diamond production, extorting oil production, etc.) that a group profited from. This helps account for both diversity in the number of resources and methods of resource exploitation engaged in by rebel groups.[3]

Finally, to assess the third hypothesis, I generated two variables, one measuring whether a group profited from lootable natural resources, and the other whether they profited from non-lootable natural resources. Following the precedent of Haer et al. (2020, endnote 15), who also use the RCD for their analysis, I include "alluvial diamonds, gems, timber, opium, cannabis, coca, and other drugs" in the measure of lootable resources. All other resources in the RCD are considered non-lootable (Haer et al. 2020).

I employ two different measures of social endowments to test the fourth hypothesis. I employ two binary indicators from the Foundations of Rebel Group Emergence (FORGE) dataset (Braithwaite and Cunningham 2020), which contains information on the organizations that rebel groups evolved from. The first is a dichotomous measure of whether a rebel group formed from "an identifiable ethnic group, but not from an identifiable (named) organization within that community"

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[3] Similarly, Conrad et al. (2019) employ counts of different types of natural resource operations, with data from the RCD.

(Braithwaite and Cunningham 2019, 7). The second is a binary indicator of whether the organization developed "from a religious organization (movement or institution)" (Braithwaite and Cunningham 2019, 7).

I use these measures because Weinstein (2005, 2007) emphasizes the role of shared ethnic and religious identities when discussing the social endowments available to rebel movements. Additionally, I did not use existing measures of whether groups have ethnonationalist or religious ideologies, as these are likely to be strongly correlated with the extent to which groups employ ideological recruitment appeals. Instead, these variables measure groups' activities before they were rebel organizations, and thus, do a better job of capturing the ethnic and religious networks available for leaders to tap into for mobilization.

Finally, to evaluate the fifth hypothesis, I employ a binary indicator of whether a group has secessionist aims, which is based on a variety of sources, including the FORGE and NSA datasets. While many secessionist movements have distinct ethnic identities, it is still important to measure ethnic identities and secessionist goals separately. This is because groups with a variety of goals are still ethnically homogenous (Soules 2023) and not all secessionist movements emphasize ethnic identity (e.g., the MFDC in Senegal).

Other Covariates

I also control for a variety of other factors. First, I include a binary indicator from the NSA dataset of whether a group controls territory. Territorial control is expected to affect both rebels' recruitment tactics (de la Calle and Sánchez-Cuenca 2012) and their

ability to exploit natural resources (e.g., Ross 2004). I also include the NSA's five-point ordinal indicator of relative rebel strength as a group's strength is related to both its mobilizations strategies and the (natural) resources it has (Weinstein 2005). Relatedly, external support from foreign governments enables groups to recruit with material incentives (Weinstein 2005) and natural resources play an important role in influencing foreign actors to intervene (e.g., Clayton 2016). Thus, with data from the NSA dataset, I include a dichotomous measure of whether a group receives any type of external support from a foreign state.

Extending data from Cohen (2013, 2016), I also include a binary indicator of whether a group employs forced recruitment, as natural resources (Haer et al. 2020) and material recruitment incentives (Weinstein 2005, 2007) are strongly associated with coercive recruitment strategies. I also control for how long groups survived, as both ideology (Basedau, Deitch, and Zellman 2022; Keels and Wiegand 2020) and natural resource exploitation (Conrad et al. 2019) affect rebel longevity.

Country-level factors are also important to account for. I control for both the ethnic (Fearon 2003) and religious (Fearon and Laitin 2003) fractionalization in the countries in which the groups operate. Ideological appeals require high levels of trust in rebel leaders that future benefits will be delivered, and thus, often result in the mobilization of more homogenous groups (Weinstein 2007) and secessionist conflicts are often fought in more homogenous regions (Walter 2019, 12). Finally, I control for both the Polity project's measure of regime type (Marshal and Gurr 2020) and a logged measure of per capita GDP from the World Bank, for the first year a group enters the dataset. The latter is particularly relevant as natural resources affect the capacity of states

to wage war (e.g., Humphreys 2005) and state capacity helps shape rebel recruitment tactics (Herbst 2000).

Results

The results for both hypotheses are displayed in **Tables 1 – 3**. The standard errors are clustered by rebel group. Again, the dependent variable measures reliance on ideological appeals, relative to material incentives. Thus, a positive correlation indicates that a variable is associated with greater reliance on ideological appeals, while a negative correlation suggests an association with greater reliance on material incentives.

Table 1: Any Natural Resource Wealth, Social Endowments, Goals, and Recruitment

	(1)	(2)	(3)	(4)	(5)	(6)
Any Natural Resource Wealth	-0.829***			-0.950***	-1.075***	-1.212***
	(0.252)			(0.266)	(0.292)	(0.368)
Ethnic Formation		0.402		0.596	1.016	1.151
		(0.799)		(0.792)	(0.803)	(1.108)
Religious Parent Org.		0.196		0.513	0.336	1.321**
		(0.431)		(0.452)	(0.487)	(0.581)
Secessionist Aims			0.900***	1.198***	1.503***	1.585***
			(0.269)	(0.305)	(0.356)	(0.416)
Territorial Control					-0.470	-0.322
					(0.317)	(0.375)
Relative Rebel Strength					-0.221	0.226
					(0.213)	(0.261)
State Supported Rebels					-0.151	-0.0241
					(0.281)	(0.334)
Forced Recruitment					0.326	-0.0165
					(0.328)	(0.387)
Group Age					0.0122	-0.00182
					(0.0108)	(0.0159)
Ethnic Fractionalization						-1.432***
						(0.431)
Religious Fractionalization						-1.203***
						(0.387)
Polity2						0.0163
						(0.0345)
per capita GDP (Logged)						-0.227
						(0.177)
Observations	223	223	232	214	205	164

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 1 includes the binary indicator of whether a group profited in any way from any type of natural resource. Across all models, we see strong support for the first hypothesis that groups with natural resource wealth are more likely to offer material incentives for recruitment. While this finding alone is somewhat obvious, it is important to delve deeper into this relationship. **Table 2** shows that groups profiting from a greater

breadth of natural resources are also more likely to recruit heavily with material incentives, highlighting the importance of having large and consistent streams of revenue for paying recruits. Thus, the second hypothesis is strongly supported.

Table 2: Resource Breadth, Social Endowments, Goals, and Recruitment Tactics

	(1)	(2)	(3)	(4)	(5)	(6)
Resource Breadth	-0.259*** (0.0626)			-0.254*** (0.0654)	-0.279*** (0.0720)	-0.321*** (0.0937)
Ethnic Formation		0.402 (0.799)		0.695 (0.752)	1.116 (0.751)	1.154 (1.090)
Religious Parent Org.		0.196 (0.431)		0.534 (0.505)	0.352 (0.517)	1.431** (0.677)
Secessionist Aims			0.900*** (0.269)	1.015*** (0.294)	1.187*** (0.351)	1.334*** (0.443)
Territorial Control					-0.300 (0.329)	-0.216 (0.386)
Relative Rebel Strength					-0.124 (0.225)	0.401 (0.275)
State Supported Rebels					-0.113 (0.285)	0.0667 (0.329)
Forced Recruitment					0.211 (0.326)	-0.130 (0.357)
Group Age					0.0211 (0.0131)	0.0114 (0.0217)
Ethnic Fractionalization						-1.252*** (0.422)
Religious Fractionalization						-1.168*** (0.391)
Polity2						0.0133 (0.0342)
per capita GDP (Logged)						-0.257 (0.174)
Observations	223	223	232	214	205	164

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3: Resource Lootability, Social Endowments, Goals, and Recruitment Tactics

	(1)	(2)	(3)	(4)	(5)	(6)
Lootable Resources	-0.869***			-0.897***	-1.043***	-1.389***
	(0.272)			(0.292)	(0.308)	(0.364)
Non-Lootable Resources	-0.264			-0.432	-0.350	-0.249
	(0.305)			(0.308)	(0.335)	(0.417)
Ethnic Formation		0.402		0.803	1.192	1.353
		(0.799)		(0.747)	(0.744)	(1.034)
Religious Parent Org.		0.196		0.556	0.363	0.986
		(0.431)		(0.521)	(0.554)	(0.633)
Secessionist Aims			0.900***	1.200***	1.447***	1.486***
			(0.269)	(0.304)	(0.355)	(0.411)
Territorial Control					-0.378	-0.295
					(0.324)	(0.393)
Relative Rebel Strength					-0.182	0.352
					(0.216)	(0.257)
State Supported Rebels					-0.151	-0.0856
					(0.284)	(0.339)
Forced Recruitment					0.282	-0.0896
					(0.330)	(0.388)
Group Age					0.0152	0.00722
					(0.0114)	(0.0175)
Ethnic Fractionalization						-1.254***
						(0.417)
Religious Fractionalization						-1.339***
						(0.408)
Polity2						0.0117
						(0.0343)
per capita GDP (Logged)						-0.229
						(0.179)
Observations	223	223	232	214	205	164

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Further nuance is revealed when the types of resources are disaggregated. As

Table 3 highlights, profiting from lootable resources is strongly associated with greater

reliance on material incentives. However, the exploitation of non-lootable natural

resources does not have a statistically significant association with the dependent variable. Thus, there is evidence to suggest that we should not assume that all types of economic endowments affect rebel recruitment strategies in the same ways.

Interestingly, there is little support for Hypothesis 4. Across all models in the three tables, connection to an existing ethnic group has a positive but non-statistically significant association with greater reliance on ideological appeals. Connection to existing religious organizations likewise has a positive association, but the relationship achieves statistical significance in only one model. Thus, these two indicators do not provide support for the argument that existing social endowments facilitate the use of ideological appeals for recruitment. Higher levels of religious and ethnic fractionalization have a negative and statistically significant association with the dependent variable across all models, suggesting that ideological appeals are easier to make in more homogenous societies, where trust is often higher. However, the results for ethnic fractionalization depend on what measurement is being used (see the Online Appendix).

Various factors could be driving this finding. First, the presence of ethnic and religious ties can be difficult to measure, and existing measures do not necessarily capture more informal identity-based networks. Second, some types of ideological rebel movements might depend more on material incentives than others. Indeed, extremist religious organizations often provide material incentives to sustain their rebellions (Berman 2003; Iannaccone and Berman 2006). Thus, the presence of social ties on their own might not be enough to incentivize greater reliance on ideological appeals for recruitment.

Finally, there is consistent support across all models for the fifth hypothesis that rebels with secessionist aims are more likely to rely on ideological appeals for recruitment. **Figure 1** displays the marginal effects for the main independent variables presented in **Table 3**, for the probabilities of recruiting either exclusively with material or ideological appeals. All other covariates are held at their means and 95% confidence intervals are included. As the figure shows, the probability of relying exclusively on ideological appeals is heavily increased by secessionist goals and substantially decreased by having lootable resources. The latter point suggests, in line with the conventional wisdom, that groups come to rely heavily on ideological appeals when they lack suitable economic resources for recruitment. However, the figure also highlights that this appears only to be the case for lootable resources.
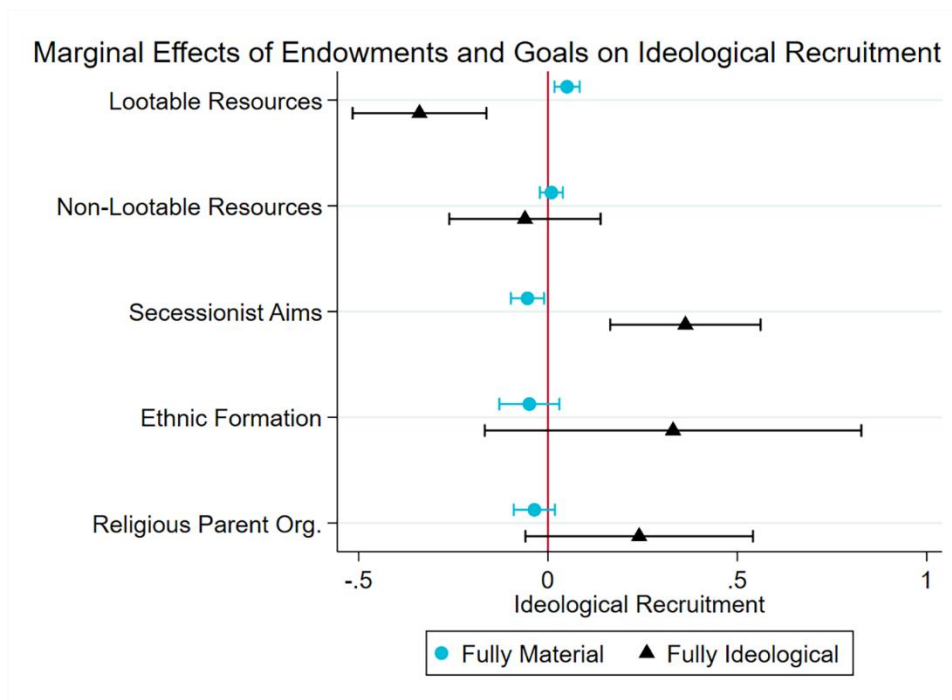
Figure 1: Marginal Effects of Economic and Social Resources, and Goals, on Reliance on Ideological Recruitment Appeals

Robustness Checks

        I conduct a variety of additional analyses to assess the strength of the findings. The results are available in the online appendix. I begin by considering potential issues with the dependent variable. In introducing RAID, Soules (2023) recommends that users employ two different robustness checks to address the subjectivity of the measure of relative reliance on ideological recruitment strategies. First, RAID includes a simplified, three-point ordinal indicator, measuring whether a group relied exclusively on material incentives; any type of mixed appeals; or exclusively on ideological appeals. Second, RAID also contains a measure of coder confidence for the original, five-point ordinal variable, with low, moderate, or high levels of confidence being assigned to each group.

        I begin by rerunning the main analysis, using the three-point ordinal indicator for the dependent variable. I then reconduct the original analysis again, excluding groups that received the lowest certain score for the coding of the dependent variable. Across all models for both alternative sets of tests, I continue to find strong support for all hypotheses but the fourth.

        Next, I consider an alternative measure of natural resource exploitation. The smuggling and extortion of natural resources are expected to have differential effects on rebel behavior, particularly because they shape rebels' relationships with civilians in different ways (Whitaker et al. 2019). In this context, extortion is the "threat of use of violence to earn money from natural resources" (Walsh et al. 2018, 701). Extortion can take a variety of forms including forcing others to extract resources or providing protection from other actors to the producers in exchange for part of the profit (Walsh et al. 2018). Smuggling, on the other hand, can be defined as cooperating with, or forcing

others to, transport natural resources from where they are extracted, to another area, for profit (Walsh et al. 2018).

Using data from the RCD, I examine how the extortion and smuggling of natural resources affect groups' recruitment tactics. I find consistent evidence that the extortion of lootable resources has a statistically significant association with greater reliance on material recruitment incentives. However, I do not find a consistent, statistically significant relationship between the smuggling of lootable resources and reliance on material recruitment incentives. These tests provide further evidence that not all economic operations affect rebels' recruitment processes in the same way. Future work should more closely examine how the methods of natural resource exploitation affect rebel recruitment.

The measures of resource exploitation used in the main analysis capture whether groups engaged in such activities at any point during their lifespan. However, theories of rebel recruitment tend to focus more on the resources available to rebels at the outset of their conflicts (Weinstein 2005, 2007). The resources available to rebels can also vary significantly over time (Walsh et al. 2018), and thus, might not affect groups' recruitment patterns in the same way. To account for this, with data from the RCD, I construct alternative versions of the four main resource-based independent variables that capture rebel resource exploitation in their first year of existence. Many groups are dropped from this analysis because a significant portion of the groups came into existence before 1990, when the RCD begins. However, even with these alternative measures, I continue to find strong support for all three resource-based hypotheses.

Another potential issue is that there is a high level of multicollinearity in the models due to the strong correlation between ethnic identity and secessionist aims. Said differently, including indicators of both ethnic formation and secessionist aims in the model could be problematic, as there is substantial overlap between the two categories. In response, I rerun the main models, excluding the indicator of whether groups have secessionist aims. However, I still do not find a consistent, statistically significant association between connections to existing ethnic groups and reliance on ideological recruitment appeals.

Discussion and Conclusion

A variety of factors appear to shape the recruitment strategies of rebel organizations. This paper enhances our understanding of these in a few different ways. First, the results indicate that there are not just divides between "resource rich" and "resource poor" rebels, but divides within resource abundant groups that drive recruitment strategies. I find that lootable resources enhance material recruitment strategies in ways that non-lootable resources do not, and that diversification in resource exploitation operations also facilitates the use of material recruitment appeals. Second, I do not find consistent evidence that social resources—specifically, existing ethnic and religious ties—increase reliance on ideological appeals.

This article also provides evidence that rebel groups' have agency in choosing their recruitment tactics, and that initial resource endowments are not the only important factors. I posit that groups' recruitment strategies send important signals to external audiences, beyond those that they are trying to recruit, playing an important role in how

groups choose to recruit. Specifically, I show that secessionist groups, who typically

engage in legitimacy-building activities to gain international support for their claims of

territorial sovereignty (e.g., Jo 2015; Stewart 2018), are more likely to rely on ideological

appeals, relative to material incentives, for recruitment. I posit that secessionist rebels do

so to signal that they are sincere advocates for change, rather than opportunistic

criminals.

Tying the latter two points together, it is thus possible that the presence of shared,

identity-based ties is not enough to facilitate reliance on ideological recruitment appeals.

Instead, common goals, rather than common identities, appear to be more important

drivers of ideological-based recruitment strategies.

This paper will hopefully help expand avenues for future research. First, scholars

could examine how other variables interact with material resources to shape recruitment

tactics. For instance, Weinstein (2005, 2007) posits that one reason groups with material

resources recruit with them, despite the risks of doing so, it that they fear that potential

recruits will join their competitors instead. Thus, scholars could examine whether the

presence of competing armed factions conditions the effects that material resources have

on rebel recruitment strategies.

Second, researchers could more closely explore how social resources shape

recruitment processes. While this article highlights the importance of secessionist aims,

are there some ideologies that are more conducive to ideological-based recruitment

strategies than others? For instance, how do religious and left-wing ideologies influence

the extent to which groups rely on ideological appeals, relative to material incentives?

Relatedly, scholars could also analyze the role of other types of social resources. For

instance, they could use data from FORGE to examine if other types of rebel origins affect recruitment strategies. Data could also be employed from the Rebel Organization Leaders (ROLE) database (Acosta, Huang, and Silverman 2022) to examine whether and how the network connections of rebel leaders shape their recruitment methods.

Third, scholars could investigate how characteristics of the countries in which rebel groups operate drive their recruitment strategies. Researchers could analyze how political structures of the states that rebels are trying to capture affect their choices in recruitment appeals.

A combination of both certain types of resources, as well as specific long-term goals, appear to drive rebel recruitment tactics. This suggests that rebels face both constraints on the recruitment appeals they employ, but still have some agency in formulating these strategies. Understanding how rebel leaders mobilize civilians into their ranks is crucial for understanding the onset, conduct, and resolution of civil conflicts.

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