

Prosocial Insurgents: Evidence from Nepal's Maoists

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Abstract

We use lab-in-the-field and survey evidence from commanders in Nepal's Maoist insurgency to study the material and social incentives within that insurgent organization. The organization of a successful rebellion is a central collective action puzzle in political science. However, current theories of rebel collective action are inconsistent with a number of known facts about successful rebellions. We draw on behavioral game theory to hypothesize that prosocial norms may resolve such inconsistency. Lab results and survey data with Maoist commanders are indicative of socialization and recruitment processes that are consistent our hypothesis. These results are also consistent with qualitative accounts of Maoist mobilization and surveys on civilian perceptions of the Maoists. Our findings indicate that the behavioral foundations of insurgency should not be reduced to immediate material self-interest.

Keywords: Insurgency, rebellion, norms, behavioral game theory, lab-in-the-field.

Wordcount: 8881 words.

1 Introduction

What organizing principles guide effective insurgencies? How do successful insurgencies incentivize their members to act in the organization's interests? With the West continuing to engage a so-called "global Islamic insurgency" (Kilcullen 2005, 2010, Gates 2009) and with ongoing insurgencies throughout Africa, the Middles East and Asia there can hardly be a more crucial question in political science. The organization of insurgency, or the threat thereof, is fundamental in understanding not only civil war but political dynamics more generally (Acemoglu and Robinson, 2001; Fearon, 2011). Most active insurgencies occur in countries marked by low levels of economic development (Collier and Hoeffler, 1998; Fearon and Laitin, 2003; Hegre and Sambanis, 2006), which, as Blattman and Miguel (2010) put it, presents a puzzle since "rebel groups are large, self-sustaining indigenous organizations in societies where effective organizations are rare" (p. 19).

Insurgent organization requires solutions to difficult collective action and commitment problems (DeNardo, 1985; Gates, 2002; Lichbach, 1998; Medina, 2007; Weinstein, 2007; Wood, 2003). Scholars have proposed various solutions to these problems, including the creation of immediate selective incentives (Collier, 2000; Lichbach, 1994; Weinstein, 2007), the use of coercion (Beber and Blattman, 2013; Humphreys and Weinstein, 2008), or the appeal to pro-social norms by mobilizing on the basis of existing ethnic religious or political networks (Costa and Kahn, 2008; Weinstein, 2007; Peterson, 2001; Taylor, 1988). These theoretical approaches downplay the role of longer-term outcomes that might depend on the success of the endeavor, such as the distribution of rewards that can only be obtained if the movement succeeds in gaining power. Allowing for recruits to be motivated by such outcome-dependent rewards transforms the analysis of collective action

(Medina, 2007), although it raises new questions about credible commitment. Drawing on insights from behavioral economics, we investigate the possibility that *prosocial norms* might resolve these commitment problems. This paper theorizes and studies empirically insurgent organization on the basis of outcome dependent rewards, prosocial norms, and trust.

In interviews, Maoist recruits emphasize the broader political aims of the organization, but on what basis did these recruits trust that they would benefit from such gains? We test for the role of prosocial norms and trust in Maoist insurgent organization with lab-in-the-field data on pro-social behavioral tendencies of over 200 Maoist commanders, survey data from these commanders on methods of discipline within their units, and original survey data from over 1,000 civilians from both violence-affected and unaffected communities. Both the materialist and the social theoretical approaches find support in our data. Indeed our main contribution is to posit and provide empirical support for a theoretical model of the interplay between these two sets of motivators.

We draw on three pieces of quantitative evidence to infer that prosocial norms played an important role in Maoist organization. First, Maoist commanders exhibit higher levels of pro-sociality on the basis of their time in the movement and, based on a test that exploits exogenous variation in opportunities to join the movement, this appears to be driven both by more pro-social people selecting into the movement earlier and by socialization to pro-social norms as a result of their participation in the insurgency. Second, Maoist commanders indicate that more serious infractions were significantly more likely to incur punishments that harnessed the power of social sanctioning. Third, evidence from civilians, including those who should be most skeptical of Maoist aims, do not tend to associate Maoists with pillaging or other venal pursuits; rather, these civilians tend to emphasize

Maoist recruits' commitments to ideological goals.¹ The conclusions that we draw from the quantitative evidence is consistent with ethnographic accounts of Maoist social programming.² Thus social motivations were an important impetus for joining the insurgency and the Maoist movement used and indeed was able to augment social motivations through its indoctrination efforts.

Adherents to the materialist school will find interesting the importance of material motivations in our findings even in a context with few lootable resources like Nepal, although we must stress that these were not generally immediate material rewards,³ but expected material rewards as a result of a successful insurgency. Furthermore as the expected material payoff for joining the movement increased, material motivations substituted for social motivations to some extent. Thus our findings not only indicate that both types of motivations were important but illustrate the dynamic interplay between them. The interaction of these two sets of motivators is illustrated in another important way: Given the dearth of lootable resources in Nepal the Maoists could not offer immediate material selective incentives (with the exception of security). They could only offer material rewards in prospect. We argue that social motivations—recruits' trust and leaders' truthworthiness—helped enforce the inherently time-inconsistent exchange between the rank and file and the leadership of effort *now* in return for material rewards *later*, (i.e. after the successful completion of the insurgency).

We begin below with a theoretical discussion of strategic problems of insurgent organization and how prosocial norms affect such organizational problems. We follow with a discussion of

¹These results are not presented in the current draft. They will be added in a future draft.

²These will be summarized in a future draft in a section that describes the research context.

³Other than the important immediate selective incentive of personal security from depredations of the Armed Police and the Royal Nepalese Army

the context of Nepal's Maoist insurgency and our research design. We then present our quantitative evidence. Our main theoretical claim is about the effects of prosocial norms on insurgent organization, but no experiment or quasi-experiment is available that manipulates the presence of such norms with respect to insurgent mobilization processes. Rather, we test a variety of empirical implications of our theoretical analysis, using the data described above. The evidence that we present is particular to the Maoists of Nepal, but the lessons obtained should be of general interest to students of insurgency.

From a policy standpoint our findings indicate that insurgent organizations need not rely exclusively or even mainly on immediate material incentives to recruit and motivate supporters and may depend crucially on social rather than material payoff and the trust relationship between commanders and recruits. Policy approaches that fail to appreciate this will be ineffective. Relevant opportunity costs of participation may have to take into account the pro-social motivations for participation and the longer term gains that insurgent recruits associate with victory rather than their immediate material conditions. Attempts to counter insurgent mobilization may depend on crucially on recruits' trust. The conclusion section expands on these implications.

2 Insurgent organization and prosocial norms

Insurgent organizations face at least two social dilemmas when mobilizing the effort of recruits. First some of the most important outputs of the insurgency's "production process" are pure public goods both locally and countrywide. They are public goods locally because any effort expended by a soldier benefits not only himself but also the members of his unit. Countrywide, the social transformation the insurgency seeks to achieve benefits a large set of people regardless of whether they

participate in the movement or not. Second there is a time-consistency problem between rank-and-file members and the leadership of the insurgency. The former have good reason to worry about whether or not their effort will be rewarded in the future if the insurgency is successful. In classical analyses of collective action, leaders use “selective incentives” to address the first problem. These selective incentives are assumed to be immediate and continuously available thereby addressing the second problem. To leave unspecified the nature of such immediate selective incentives begs the question. Scholars have proposed examples such as resource appropriation, whether in the form of land, other bounty, or even taxes that are immediately appropriated by participants (Lichbach, 1994) or the capture of valuable “loot” such as diamonds that can be exchanged quickly for benefits to distribute to recruits (Collier (2000); Weinstein (2007)). As Weinstein discusses, this mechanism can only be relied-upon by insurgent commanders in places where material resources are sufficient. To the extent that such appropriation comes at the expense of civilians, it has the potential to undermine the strategic foundation of an insurgency by alienating the population. Others have considered coercion as a mechanism through which recruits’ motivation can be managed—a kind of negative selective incentive that uses punishment for non-performance rather than reward for performance (Beber and Blattman, 2013; Humphreys and Weinstein, 2008). Coercion was clearly central in the particular insurgencies studied by those authors (the Revolutionary United Front in Sierra Leone and Lord’s Resistance Army in Uganda), and the use of threats are a feature of all rebellions (and most organizations, for that matter). However extensive reliance on coercion imposes major constraints on the strategic reach of an insurgency.⁴ For coercive threats to be credible, commanders must be able to monitor recruits carefully. But this is typically impossible when

⁴Accordingly, neither the Revolutionary United Front nor the Lord’s Resistance Army are well-known for their political accomplishments.

insurgencies operate as diffuse and clandestine organizations over wide and rugged terrain.

A second approach relies not on material incentives but on social incentives. There are several strains here. First the insurgency may appeal to members' innate pro-sociality and sense of justice. Wood (2003) who describes the "pleasure in agency" her subjects enjoyed from contributing to the insurgency in El Salvador is a clear example. Her subjects received positive psychic benefits from contributing to a cause that they viewed as just and that they thought brought about a positive transformation of their society. In this case the reward for contributing and participating is akin to Andreoni's (1990) "warm glow" utility for having "done the right thing." Since these payoffs are intrinsic, organizations can appeal to them even without any social reward or sanction.⁵ Thus they stand in contrast to alternative social approaches like that of Costa and Kahn (2008) where pre-existing social linkages and the social rewards (respect, approbation, inclusion) and sanctions (disrespect, criticism, ostracization) that flow across them are central to their social explanation for the effectiveness of Civil War combat units. Ostrom's (2005) language highlights the difference between the first two approaches. Wood, Andreoni and others are referring to what Ostrom calls norms—the "internal valuation ... to taking a particular action" that people are prone to comply with for psychic reasons even without social rewards or sanctions. In Ostrom's definition, norms stand in contrast to *rules*, which invite some social sanction if they are not obeyed. A third approach to insurgencies' use of social incentives is particularly important in our results, but it has not been studied in the recent literature to our knowledge. The first two social motivations are static: the movement must piggyback on pre-existing social norms and rules. In our results the movement exhibited an apparent ability to *change* its members social motivation through indoctrination, efforts

⁵Social reward or sanction would undoubtedly strengthen them of course.

to build camaraderie and so on. What distinguishes this third use of social motivations from earlier studies is that social impulses can operate as much more than a screening device and insurgencies are not bound by the the pro-social norms and rules with which insurgents enter the movement. The insurgency we study was successful in creating and strengthening social motivations among its officers.⁶

A third approach emphasizes longer-term outcomes that depend on the success of the insurgency (Medina, 2007). Outcome-dependent incentives can offset participation costs in such a way as to make a recruit's participation rational. What is required is that recruits have good enough reason to believe that success is possible and that the rewards will in fact be delivered as promised. The latter consideration raises questions of credible commitment and trust—specifically, the question of why recruits should trust that those empowered by a successful insurgency will in fact deliver on their promises. Certainly history provides plenty of examples of post-revolution betrayal. Trust would seem to be a crucial element in the mobilization on the basis of outcome dependent incentives in a way that it is not for immediate material and social inducements. Drawing on insights from behavioral economics, we analyze the role of prosocial norms nad rules in establishing such trust, thereby resolving commitment problems and providing a positive inducement that allows for an organization with broad strategic reach.

How do prosocial norms alter organizational challenges such as mobilizing recruits? Following Kreps (1990) and Lidow (2011), a simple way to formalize the logic is to model the insurgent organizational problem in terms of a principal-agent interaction with a basic trust-game setup. A

⁶Anecdotal evidence suggests that the Maoists may have been successful not only in augmenting pro-social norms and establishing new pro-social rules among recruits but may have been successful in weakening old social norms and rules that were harmful to its purposes, for example ancient but still powerful social sanctions that forbade certain social interactions across caste and ethnic lines.

commander proposes that the recruit contribute sufficient effort to win a prize scaled to be valued at 1. The recruit decides to accept or not. If the recruit accepts, the cost of the effort to the recruit is e , with $0 < e < 1$, and the commander then has the authority to choose to share some amount, a , with the recruit and keep $1 - a$, with $0 \leq a \leq 1$. If the recruit refuses, they both receive 0. Under rational self-interest, payoffs to the commander are $1 - a$ and to the recruit, $a - e$. Then, the subgame perfect equilibrium is such that the principal would have incentive to fix $a = 0$ and take all of the output, in which case the recruit would turn down the request to contribute effort. This is an inefficient outcome, given that there are combinations of effort (e) and reward (a) that would make both the commander and recruit better off. Now suppose the commander is influenced by a prosocial norm when interacting with the recruit. We can specify this in terms of a commander payoff of $1 - a + s(a)$, where $s(a)$ is an increasing strictly concave function capturing the utility to the commander deriving from sharing benefits with this recruit. In this case, the commander would share up to a^* such that $s'(a^*) = 1$, and the agent would contribute effort if $a^* > e$. It is in this way that prosocial norms may resolve the commitment problem.

A core proposition that comes from this analysis is that *in the face of commitment problems, organizational efficiency is enhanced if the organization cultivates or selects on the basis of prosocial norms among those who command effort*. Studies in the field of organizational economics provide some evidence for this proposition. In a classic contribution, Miller (1992) provides case studies on American firms to illustrate the necessity of prosocial norms for organizational efficiency and durability. Fehr and List (2004) provide laboratory results demonstrating that CEOs exhibit significantly higher levels of trustworthiness than a student comparison group, leading to higher levels of efficiency in the outcome of economic games. Fehr, Gaechter and Kirchsteiger (1997) demonstrate the strong effect of prosocial reciprocity norms on contracting efficiency in

a series of lab experiments with students. With respect to military organization, our analysis is related to classical work in military sociology that emphasizes the importance of cultivating cohesion within units to motivate soldiers to fight (Gabriel and Savage, 1979; Shils and Janowitz, 1948; Stouffer et al., 1949). It is also related to analyses of military and insurgent mobilization that stress the importance of pre-existing solidarity networks in military effectiveness (Costa and Kahn, 2008; Taylor, 1988), although as we show below recruitment on the basis of pre-existing ties is only one among a number of mechanisms through which prosocial norms can be activated in the service of organizational efficiency. In the empirical analysis below we test various empirical implications of this core proposition.

We also seek to tease out whether the evidence that we find for the activation of prosocial norms reflects processes of socialization or selection, whether on the basis on prosocial “types” or preexisting solidarity networks. To understand the conditions required to tease out these mechanisms, it is useful to consider from where these prosocial commanders come in the first place. That is, we need to theorize about the joining decisions and socialization of those who come to occupy commander positions. Thus, consider the joining decision of individual i . We assume that the joining decision is made once and that after i joins the movement he does not leave until either the war is over or he is rendered inactive due to injury or death. Let time be indexed by $t = 1, 2, 3, \dots$ with $t = 1$ at the start of the war. Define $F : t \rightarrow [0, 1]$ as the probability, at the time i is deciding whether to join the insurgency, that the insurgents will win the war before i is killed. Normalize the reward that i receives in that eventuality to one. Then $1 - F(t)$ is the probability that the insurgency will lose before i is maimed or killed. Normalize the reward in that eventuality to zero. Assume the probability of the insurgency winning is increasing in time. The total cost of participating, which includes expected costs of effort expended and of being harmed, are called $K(t)$. Presumably the

costs associated with joining earlier are greater so $dK/dt < 0$ but the argument goes through even if K is a constant. Finally assume there is some social utility from participating in the insurgency because i thinks it is a just cause. We specify this social utility as $S_i + s(t - j_i) + n(t - d_i)$ where j_i is the period in which i joins the insurgency and d_i is the time at which the insurgency begins recruiting in i 's region. $s(t - j_i)$ is an increasing function that captures the socialization process through which i 's prosocial norms increase over time as i participates in the insurgency and $n(t - d_i)$ are the network benefits that i receives from joining as a function of the number of friends and family he has in the movement. We assume that until the insurgency begins recruiting in the region it has no members in that region so $n(0) = 0$. Obviously $s(0) = 0$ so at the time of the joining decision i 's social norms are $S_i + n(t - d_i)$ and if i is a first joiner in his region his sociality benefit is solely S_i . Finally i 's reward from not participating in the insurgency is called κ_i , $0 < \kappa_i < 1$. Given these incentives, i will join if

$$S_i \geq \kappa_i - F(t) + K(t) - n(t - d_i) \quad (1)$$

and be indifferent between joining and not joining if 1 holds with equality.

This is a reduced form of a very complicated process but it is useful for at least two reasons. First each of the parameters in (1) corresponds to a claim in the literature about the social foundations of war. $F(t) - K(t)$ is the net benefit of joining due to material benefits the accrue during and as a result of the outcome of the insurgency. $n(\cdot)$ captures importance of the pre-existing social networks, which are central in several social theories of warfare (Costa and Kahn, 2008; Weinstein, 2007; Peterson, 2001). We conceptualize S_i as a person's initial pro-social utility for participating in the insurgency. As mentioned above Wood (2003) calls this motivations the "pleasure in

agency.” But even for Wood such pleasure is tied to acting toward a just cause, in which case her interpretation of is nearly identical to ours.⁷ Finally $s(\cdot)$ is the effect of the insurgent organization’s cultivation of prosocial norms among its members.

The second useful feature of the simple model is that it establishes an identification strategy for disentangling certain selection effects from socialization. Less initially prosocial people will join later when the net material benefits, $F(t) - K(t)$, and network benefits, $n(\cdot)$ for doing so are greater. This allows us to use *exogenous spread in recruitment opportunities* to examine the nature of self-selection effects versus socialization effect. Given sufficient geographic immobility some individuals will not be able to join the insurgency even if they want to because the war has not spread to their region, and so recruitment is not yet occurring there. More importantly by the time the insurgency has reached their region people with lower levels of S_i will be willing to join because the expected material benefits of joining, $F(t) - K(t)$, will be higher. According to this argument first joiners should be less prosocial in regions the later the war reached those regions.

Figure 1 is a stylized depiction of the expected patterns. We consider two recruitment regions, A and B, which differ in the timing of recruitment initiation and where A ends up with three joiners and B with two. Suppose recruitment in region A begins a period prior to the initiation of recruitment in region B. In graph (i) on the left side of Figure 1, we depict the theoretically expected levels of pro-sociality over time for a *marginal joiner* in each district in each period. A marginal joiner is defined as a person who is indifferent between joining and not joining in the given period in which the movement is recruiting in his or her district. The initial level of social norms/intrinsic

⁷Wood writes, “I mean to stress that this increased self-esteem and pride in self-determination and efficacy occur not just in *any* intentional activity but in the course of making history, and not just any history but a history [participants] perceive as more *just*...[T]he pleasure in agency is a collective experience, as this redrawing of boundaries and reshaping of history by subordinate people is a collective enterprise” (2003, p. 235; emphasis in the original text).

pro-social motivation, S_i , for the marginal joiner in each district in each period is written Figure 1. The levels of pro-sociality exhibited by individuals at the time of observation, denoted as M , are the sum of initial pro-sociality, network effects and socialization, $Y_i = S_i + n(t - d_i) + s(t - j_i)$. These values are marked for the time of observation in graph (i), and then observable patterns with time of joining relative to the first joiner in one's region are shown in graph (ii). The war begins at $t = 1$ in region A. Individual A1 joins at that time. Since the insurgency has just begun recruiting, A1 has no friends or family in the movement, and as a result $n(\cdot) = 0$. By period 2 the war has spread to region B. As a first joiner from region B, B1 is also in a position such that $n(\cdot) = 0$, but net benefits of joining $F(t) - K(t)$ presumably will have increased, allowing $S_{A1} - S_{B1} > 0$.⁸ The second joiner in region A, individual A2, may join at a lower level of initial pro-sociality than had been the case for B1 if network effects are operative ($n(\cdot) > 0$). This is indicated by the lower starting point for A2 and compared to B1 ($S_{A2} < S_{B1}$). The same pattern repeats throughout the war as the insurgents sequentially begin recruiting in other regions. After joining, socialization ensues, and this is captured by the positive trajectories for each of the individuals in graph (i).

Graph (ii) on the right of Figure 1 illustrates how data on levels of pro-sociality, time of joining, and time of recruitment initiation in the different regions allow us, in principle, to disentangle three types of effects: changes in net benefits of joining, networks effects, and socialization.⁹ The difference in region-specific intercepts, which measure differences in pro-sociality levels of first joiners ($Y_{A1} - Y_{B1}$), capture effects of changes in net benefits of joining as recruitment began in different periods in different regions. The slopes of the lines connecting observations from

⁸We assume in this discussion that net benefits of non-participation, κ_i , are balanced across regions.

⁹The pattern in graph (i) cannot be observed without data on levels of pro-sociality at the time of joining, something that we cannot measure.

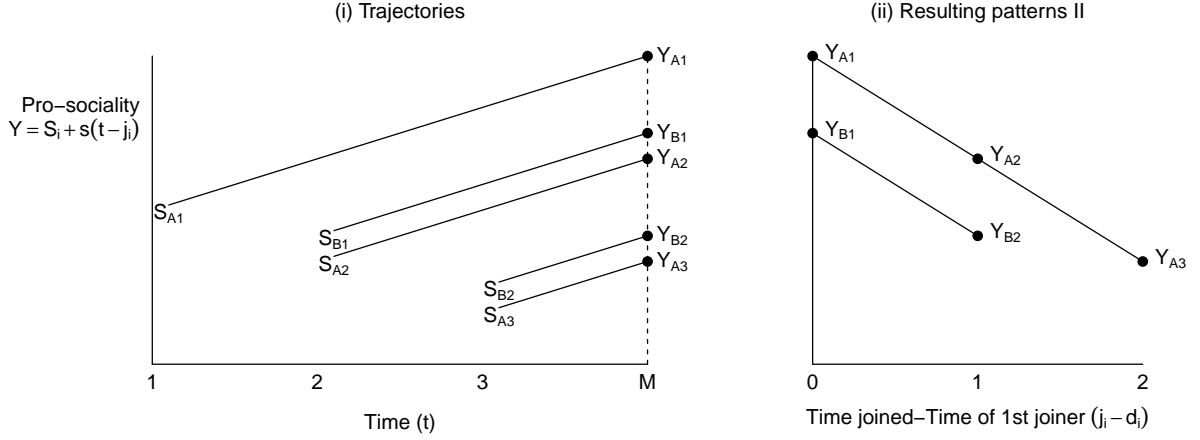


Figure 1: Predicted Patterns in Pro-sociality

individuals in a given region are the sum of both socialization and network effects. However, the vertical distance between individuals who have spent the same time in the movement, but that joined at different times relative to first joiners in their region, capture network effects (e.g., $Y_{B1} - Y_{A2}$ and $Y_{B2} - Y_{A3}$). Our empirical analysis below uses the identification strategy implied by our theoretical model to estimate these different types of effects.

3 Nepal’s Maoist Insurgency

Our study was fielded in post-conflict Nepal, with the laboratory activities conducted in late 2012 and early 2013 and civilian survey having been done in 2009. The “People’s War” as it was called by the Communist Party of Nepal–Maoist began in February 1996 with a series of raids by the Maoists on police stations in the middle western part of the country. Just over 13,000 deaths were recorded during ten years of conflict in this nation of roughly 27 million people (Nepal, Bohara and Gawande, 2011; Thapa, 2004). According to detailed data gathered by the Nepalese non-governmental organization, Informal Sector Service Centre (1996-2006), the vast majority (86%)

of fatalities took place in the Nepalese countryside after 2001, the year in which the Maoists organized a more formidable force under the banner of the People's Liberation Army (PLA) and the Royal Nepalese Army mobilized to fight them. The war formally ended in November 2006 with the signing of the Comprehensive Peace Agreement between the Maoists and the government. The Maoist movement transformed into a legitimate political party and won a plurality of 38 percent of seats in the 2008 constituency elections. However, political deadlock between the Maoists and other parties to the peace agreement prevented a comprehensive resolution of the status of PLA forces, with some having been demobilized and others residing in a sort of organizational limbo under the nominal authority of the national army. Factional infighting and frustration led to boycott by a large faction of the Maoist party in the 2013 elections, undermining their political position dramatically with the party's only able to secure 14 percent of constituent assembly seats.¹⁰

4 Methods

We provide quantitative evidence that the Maoist movement cultivated and selected on the basis of prosocial norms among members of its insurgent organization. In this section, we describe the data sources and the empirical tests that we apply to them. We use three different types of data. First are the results of laboratory activities that are designed to isolate prosocial norms in participants' behavioral tendencies. The activities were conducted with 204 Maoist PLA commanders over the course of six months in 2013 at 17 PLA installations around the country. The sample includes commanders of various ranks, ethnicities, and regions of Nepal. Second are surveys conducted

¹⁰To be inserted: 2-3 paragraphs on ethnographic and other qualitative accounts of Maoist recruitment and social programming.

with these commanders that provide detailed information on the manner in which discipline was enforced within the organization. In the surveys we also collected data on commanders' personal attributes and their experiences during wartime. Third are surveys with 1,152 civilians that was undertaken in 2009-2010 in 17 districts around Nepal and that included respondents from communities that were both highly-affected and not affected by wartime violence.

Our first source of evidence is commanders' behavior in two laboratory activities that isolate the role of prosocial norms in participants' behavior. The laboratory is a fruitful place to measure norms because subjects' actions are anonymous. Thus extrinsic punishments are removed by construction and the only factors influencing subjects' choices are the parameters of the experiment and participants' intrinsic valuation of prosocial actions, i.e. their norms. As Hoffman, McCabe and Smith (1998, p. 350) argue:

A one-shot game in a laboratory is part of a life-long sequence, not an isolated experience that calls for behavior that deviates sharply from one's reciprocity norm. Thus we should expect subjects to rely upon reciprocity norms in experimental settings [...].

Laboratory activities have provided tremendous insight into motivations guiding behavior in various professions, including among business elites as well as athletes and professional games players (Chiappori, Levitt and Groseclose, 2002; Fehr and List, 2004; Levitt and List, 2007; List and Mason, 2009).

Military organizations require trust (and concomitant trustworthiness) among members of the organization in order to complete a variety of missions, especially in combat. Furthermore this trust and trustworthiness cannot be based only on bilateral reciprocity relationships but must be diffuse since military operations frequently require that a soldier act trustworthily to a person who has not

directly trusted them and vice versa. A good illustrative example of the need for this kind of diffuse trust is an infantry innovation introduced by the British Army in the Battle of Culloden (the last battle of the Jacobite Rebellion in 1745) to counter the Highland charge. In the Highland charge the Jacobites would close quickly with British line infantry, knock their bayonets to the side with targes (small leather covered shields) and hack them with broadswords. The British innovation was to train their men to bayonet not the Highlander attacking them but the one attacking the Redcoat to their right, taking away the defensive advantage of the targe and providing an easy target under the upstretched sword arm of the Jacobite attacker. In this example the recipient of one's trust (the man to the left) is not the beneficiary of one's trustworthiness (the man to the right). The British army drilled this tactic for months since it took not only great discipline but incredible trust in the man to one's left to ignore the Highlander attacking oneself and instead bayonet the one to one's right (Reid, 1996).

The first activity, which we call, illustratively, the Culloden game, is designed to measure the presence of similar norms in a much less life-and-death setting. Each officer i was given 100 rupees in 10 rupee notes and randomly and anonymously paired with two other officers j and k (where $j \neq i$, $k \neq i$, and $j \neq k$). Officer i was given the opportunity to send any amount of that 100 rupees (in ten rupee denominations), including zero, to j and we would double the amount sent. Meanwhile k would send some amount, including possibly zero, to i and we would double the amount that k sent to i . At one level, the game amounts to nothing more than a series of "dictator" games, which under rational self-interest should provide no incentive for anyone to give. However, in dictator games experiments conducted across a variety of contexts, subjects in fact exhibit degrees of pro sociality in that they typically give some positive amount (Henrich et al., 2004). The design of the game as a "diffuse reciprocity" game rather than a simple unidirectional

dictator game was motivated by two interests. First was to prime group-level norms instead of focusing the subject’s attention solely on a single recipient. Second, this implementation allowed all subjects the play the dictator role in a simultaneous play fashion.

The second laboratory activity was a standard “public goods” game. Each subject i was again given 100 rupees in ten rupee notes and told they could donate any amount of that 100 rupees, including zero, in ten rupee denominations to the group. For each ten rupees donated, everyone in the group, including i , would receive a payout of 2 rupees. Groups always consisted of 12 officers so each 10 rupee donation reaped 24 rupees for the entire group. This presents a classical public goods provision problem (Olson, 1965), and under rational self-interest, the incentives of this game are such that free-riding should prevail. At the same time, the group nature of the game is expected to prime group level norms, should they exist.

Based on the theoretical discussion above, our empirical expectation is that commanders that participated in the insurgency longer should exhibit stronger pro-social norms in the lab *ceteris paribus*. To test this, we fit the following regressing model,

$$\text{Pro-sociality}_i = \alpha_0 + \alpha_1 \text{Years since joining}_i + X_i\gamma + \epsilon_i,$$

where we use the amounts sent in the lab games as well as the sum of the amounts sent over the two games for measures of pro-sociality, the key independent variable is years since joining the PLA, and X_i is a set of control variables including age, education level, lab session date, caste/ethnicity fixed effects, and whether the respondent’s home village is urban or rural. Our theoretical expectation is $\alpha_1 > 0$.

To distinguish between the various selection, network, and socialization mechanisms, we take

advantage of data on the spread of war in Nepal from Do and Iyer (2010). These data are based on war-related fatalities reports compiled by the Nepalese human rights organization, the Informal Sector Service Center (INSEC). The vast majority of the deaths recorded in these data are attributed to *counterinsurgent attacks by state forces*. Given that the ostensible objective of state-committed attacks was to deter or destroy Maoist strongholds, these data provide a reasonable proxy for the timing of the geographic spread of Maoist presence and recruitment opportunities over time. Our theoretical discussion requires that (i) the spread of such recruitment opportunities over time is plausibly exogenous with respect to the distribution of initially prosocial types and (ii) that there are substantial constraints on the mobility of would-be joiners. We cannot test these assumptions directly, but assumption (i) would seem to be quite reasonable for two reasons: first is the premise that all communities exhibit heterogeneity in levels of initial prosociality and (ii) is probably more believable in this particular case than any, given the extreme ruggedness of Nepal’s terrain and resulting extreme localism in economic and social interactions.¹¹ Figure 2 shows Do and Iyer’s codings for the years up to 2004; the data cover through end of 2006.

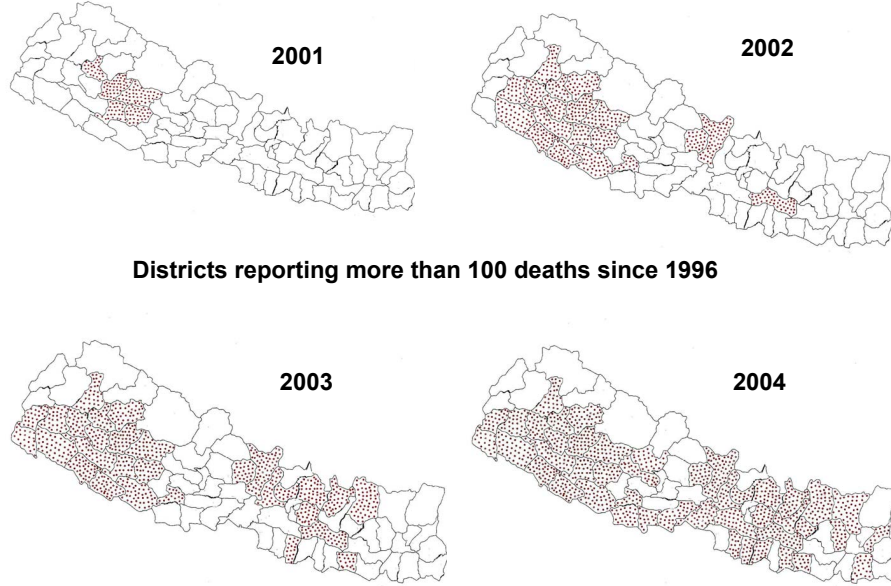
To disentangle the socialization, selection, and network effects discussed above, we first fit a model that corresponds to graph (ii) in Figure 1:

$$\text{Pro-sociality}_i = \mu_{r[i]} + \beta(\text{Yrs. since joining} - \text{yr. of first joiner in } i\text{'s region})_i + X_i\lambda + \nu_i, \quad (2)$$

where $\mu_{r[i]}$ is a region-specific fixed effect for individual i ’s region that measures the predicted

¹¹The account by Gersony (2003) discusses how the founding sites of the radical Communist fraction that would evolve into the Maoist movement owes largely to an historical accident—that being the path traveled by founding member, Mohan Bikram Singh, after his release from prison in 1955 (pp. 23-25). These founding sites formed the core of the Maoist insurgency four decades later.

Figure 2: Geographic Spread of the War Up to 2004



Notes: From Do and Iyer (2010). Years 2005-2006 not shown here although the data cover through end of 2006.

level of pro-sociality for the first joiner in region r , and “Yrs. since joining – yr. of first joiner in i ’s region” measures time elapsed in subject i ’s region since opportunities to join began. The regions here are defined in terms of Do and Iyer’s data: region 1 is the region where the Do and Iyer data suggest evidence of Maoist presence as of 2001, region 2 is the region where the Do and Iyer data suggest that Maoist presence expanded from end 2001 to end 2002, and so on through end 2006 (with region 7 being those areas for which there was never any evidence of Maoist presence). Model (2) controls for region-level selection effects via the region-specific intercepts, and so based on our theoretical discussion, $\beta < 0$ would be indicative of combined *socialization and network* effects.

Our theoretical discussion suggests that *selection* effects would induce a pattern of $\mu_1 > \mu_2 > \dots > \mu_7$. To test this hypothesis, we simply regress the estimated intercepts over the index ($d = 1, \dots, 7$):

$$\mu_r = \gamma_0 + \gamma_1 r + \epsilon_r, \quad (3)$$

where $\gamma_1 < 0$ provides evidence of a selection effect. Our hypothesis test for γ_1 is based on a parametric bootstrap.¹²

To disentangle network effects from socialization effects, we fit a model that holds overall years in the movement constant, and then estimates the effects of variation in “Yrs. since joining – yr. of first joiner in i ’s region”:

$$\begin{aligned} \text{Pro-sociality}_i = & \delta_{j[i]} + \phi(\text{Yrs. since joining} - \text{yr. of first joiner in } i\text{'s region})_i \\ & + X_i\pi + \zeta_i, \end{aligned} \tag{4}$$

where $\delta_{j[i]}$ is a year-specific fixed effect for the year that individual i joined. The coefficient ϕ measures the magnitude of the network effect, and our theoretical expectation is that $\phi < 0$.

Our second source of evidence comes from surveys that we conducted with the 204 commanders. The surveys covered a variety of topics but of most interest to us is the module on methods of discipline within the organization. To what extent did commanders rely on punishments that harnessed the power of pro-social norms to enforce discipline? Were such social punishments used for more serious infractions? To the extent that they were, this would be evidence of the movement seeking to enforce the role of prosocial norms in the movement. To examine this, we had commanders code the severity of ten possible infractions. Then, we presented them with a list of possible punishments, and had them assign punishments (choosing as many as they thought might be appropriate) to each of the infractions. We developed these lists in close consultation with former officers in the Maoistinsurgency an the Nepalese Army who served during the war. Figure 3

¹²Specifically, we use 1,000 draws from a multivariate normal distribution with means given by the estimated intercepts and covariance matrix given by the estimated covariance matrix for the intercepts. The method is equivalent to those proposed by, e.g., King, Tomz and Wittenberg (2000).

shows a snippet of the set of punishments as well as the potential punishments. We coded each of the punishments in terms of whether or not they invoked some form of social sanctioning. These “social punishments” are marked in the Figure with a dot. Social punishments included public humiliation via demotion, extra work, reprimand or forced apology in front of the unit or a civilian community. To the extent that prosocial norms are central to the organization of the Maoist insurgency, our empirical expectation would be that *reliance on social punishments will increase with the severity of the infraction*. To test this hypothesis, we compute the share of social sanctions that each commander assigned to each infraction and severity scores that each commander assigned to each infraction. (The severity scores are normalized to the mean severity level assigned by each commander.) Then for punishment p and individual i , we fit a regression that relies exploits this within-subject variation (and thus controls for all subject-specific effects):

$$\text{Share social sanctions}_{pi} = \lambda_0 + \lambda_1 \text{Severity score}_{pi} + \eta_{pi},$$

where $\lambda_1 > 0$ would indicate that commanders used prosocial norms to maintain discipline against more serious infractions within the organization.

The lab sessions and commander surveys were run with a total of 204 Maoist PLA commanders at 17 installations around the country. Table 1 shows summary statistics and the ranks distribution for our laboratory participants, while Table 2 shows how the participants varied in terms of the timing of their home locality’s exposure to Maoist presence (from the Do and Iyer coding).

Figure 3: Discipline Instruments

Below are a few offenses that soldiers might have committed while in your unit. Drawing on your experience as a commander we are interested in your opinions about the seriousness of these infractions and how often in your experience were they committed during the war from 2001 through 2006.

Offenses	How often did you observe this infraction among soldiers in the unit you commanded? Fill in the appropriate circle	How serious would you say this infraction is?
1. Being drunk inside the unit when off duty	<input type="radio"/> Never <input type="radio"/> Once or twice <input type="radio"/> three to five times <input type="radio"/> more than five times <input type="radio"/> Don't know/No answer	<input type="radio"/> Minor <input type="radio"/> A little serious <input type="radio"/> Serious <input type="radio"/> Very serious
2. Theft inside the unit	<input type="radio"/> Never <input type="radio"/> Once or twice <input type="radio"/> three to five times <input type="radio"/> more than five times <input type="radio"/> Don't know/No answer	<input type="radio"/> Minor <input type="radio"/> A little serious <input type="radio"/> Serious <input type="radio"/> Very serious
3. Raping a civilian	<input type="radio"/> Never <input type="radio"/> Once or twice <input type="radio"/> three to five times <input type="radio"/> more than five times <input type="radio"/> Don't know/No answer	<input type="radio"/> Minor <input type="radio"/> A little serious <input type="radio"/> Serious <input type="radio"/> Very serious
4. Murdering a civilian	<input type="radio"/> Never <input type="radio"/> Once or twice <input type="radio"/> three to five times <input type="radio"/> more than five times <input type="radio"/> Don't know/No answer	<input type="radio"/> Minor <input type="radio"/> A little serious <input type="radio"/> Serious <input type="radio"/> Very serious
5. Turning up late for Parade or any other	<input type="radio"/> Never <input type="radio"/> Once or twice	<input type="radio"/> Minor <input type="radio"/> A little serious

Punishment	Number
Verbal reprimand in private	1
Beating	2
Extra sentry duty in private	3
Transferring responsibilities from combat to cleaning, cooking, doing dishes	4
Pack Drill	5
Extra exercises (pushups, running laps parade detail etc)	6
Verbal reprimand in front of the unit	7
Cutting pay	8
Community service	9
Carrying a fellow soldier's load on drills/marches	10
Demotion of rank	11
Confined to post/ restricted individual movement	12
Self criticism/ Open apology in front of the unit	13
Imprisonment (Quarter Guard detainment)	14
Arrest leading to court martial	15
Saffaya	16
Discharge from the unit	17
Self criticism/ Open apology in front of the public	18

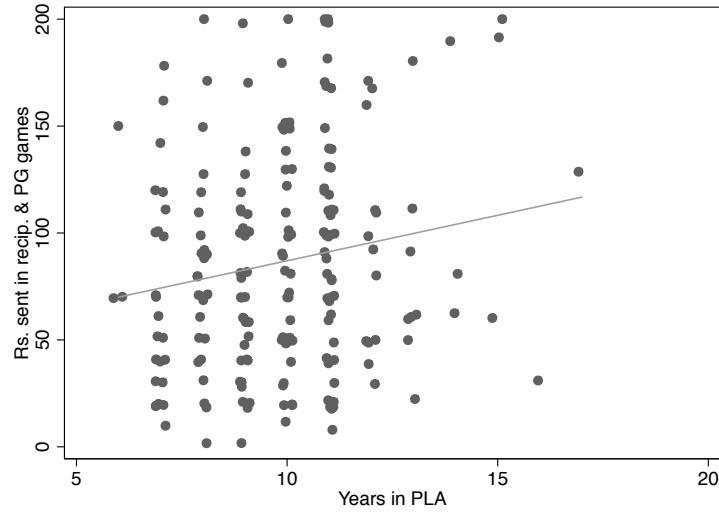
Table 1: Summary Statistics and Ranks for PLA Commander Participants

Variable	Mean	Std. Dev.	Min.	Max.	N	Code	Rank	Approx. US Army equivalent	Percentage
Age	28.787	4.264	21	47	202	1	Supreme Commander		0
Years in PLA	9.838	1.955	6	17	204	2	Deputy Commander		0
Edu. level	2.118	0.886	1	4	204	3	Division Commander	Major General	0
Father's edu. level	1.276	0.698	1	4	203	4	Division Vice-commander		0.49
No. times wounded	1.495	1.757	0	15	204	5	Brigade Commander	Colonel	1.47
Any soldiers killed?	0.673	0.471	0	1	171	6	Brigade Vice-commander		6.86
Big 5 extroversion	3.509	0.364	2.5	4.375	203	7	Batallion Commander	Lt. Colonel	12.25
Big 5 agreeableness	4.075	0.351	2.667	5	204	8	Batallion Vice-commander		22.55
Big 5 conscientiousness	4.238	0.352	3.111	5	180	9	Company Commander	Captain	25
Big 5 neuroticism	1.249	0.52	0.25	3.125	204	10	Company Vice-commander		19.61
Big 5 openness	3.911	0.388	2.7	4.600	204	11	Platoon Commander	Lieutenant	3.92
Raven test score (max. 12)	6.029	2.647	1	12	204	12	Platoon Vice-commander		4.9
Rs. sent, recip.	47.794	29.504	0	100	204	13	Section Commander	Sergeant	0.98
Rs. sent, PG	38.529	28.73	0	100	204	14	Section Vice-commander		0.98
						15	Front Guard Leader (FGL)		0.98
						16	Member		0

Table 2: Tabulation of PLA Commanders Participants by Year of Maoist Presence

Year of Maoist presence	Period	Freq.	Percent
2001 or before	1	19	9.45
2002	2	54	26.87
2003	3	39	19.4
2004	4	34	16.92
2005	5	13	6.47
2006	6	13	6.47
Never established	7	29	14.43

Figure 4: Prosociality and years in the insurgent movement



The final source of evidence that we draw upon is a civilian survey conducted in 2009-10 with 1,152 participants in 17 districts across the country. Communities within these districts were sampled in a manner that stratified on degrees of exposure to wartime violence.

5 Lab Activities Results

We begin with results based on our laboratory measures. Figure 4 presents a scatter plot of the combined amount sent in the Culloden and public goods games as a function of years since joining with a bivariate linear fit laid over the points. Table 3 shows the basic estimates for each of the games and then for the combined amount sent, with and without covariates controlling for age, education level, lab session fixed effects, caste/ethnicity fixed effects, and urban/rural home village fixed effects. The results show the expected positive trend, and they are driven mostly by the results from the Culloden game, although results from the public goods game move in the same direction.

Table 4 offers estimates that decompose selection effects due to changes in expected net bene-

Table 3: Prosociality and years in the insurgent movement

	(1)	(2)	(3)	(4)	(5)	(6)
	Recip.	Recip. (w/ covs.)	Publ. Good	Publ. Good (w/ covs)	Combined	Combined (w/ covs)
Years in PLA	2.70** (1.13)	4.83*** (1.38)	1.55 (1.02)	2.11* (1.25)	4.25** (1.93)	6.93*** (2.25)
Observations	204	198	204	198	204	198
R^2	0.03	0.23	0.01	0.30	0.03	0.27

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

fits of participation as recruitment advanced from region to region. Figure 5 graphs corresponding predicted values. Periods of recruitment are coded such that the region where Do and Iyer coded high levels of violence as of 2001 is region 1, where they coded high levels of violence as of 2002 is region 2, and so on. The graph on the left of Figure 5 is the empirical analogue of graph (ii) from Figure 1, where the Y_{Ar} values correspond to the estimated intercept for each of the regions. The pattern aligns almost perfectly with our theoretical expectations, with the only exception being the point estimate for region 3 (corresponding to the region where high levels of violence were only recorded as of 2003 based on the Do and Iyer data). Of course, our data are from a sample, and so our estimates of these intercepts carry some error. As such, we apply the approach specified by the region-intercepts model given in expression (3) above, where uncertainty estimates are based on a parametric bootstrap (see footnote 12). Consider the results estimated without covariates reported in the first column of estimates in Table 4 (results with covariates are only more pronounced, but qualitatively the same). The within-region coefficient corresponds to our estimate of β from expression (2) and provides an estimate of combined socialization and network effects, with effects of changes in expected net benefits of participation having been partialled out. The between-region coefficient corresponds to the slope in the right hand graph in Figure 5, formalized as coefficient γ_1

Table 4: Decomposing selection effects associated with progress of recruitment across regions

	(1)	(2)
	w/out covs.	w/ covs.
<i>Within-region coefficient:</i>		
Joining date - first joining date in region	-5.42** (2.09)	-6.52*** (2.29)
<i>Between-region coefficient:</i>		
Period of recruitment	-5.81** (2.74)	-6.81** (2.67)
Observations	201	197
R^2	0.76	0.83

Standard errors in parentheses

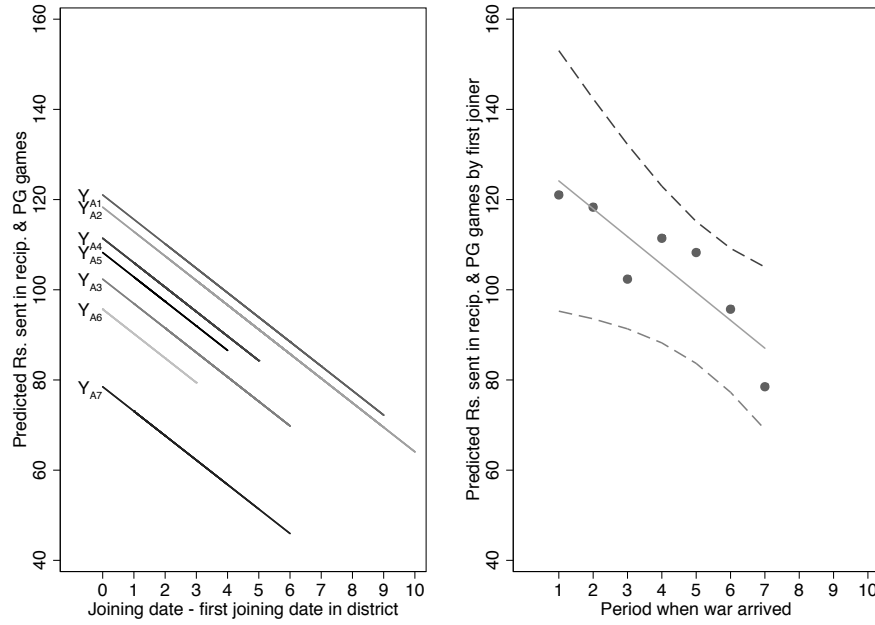
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

“w/out covs.” and “w/ covs.” correspond to “without covariate control variables” and “with control variables,” respectively.

in expression (3) above. This measures how changes in the expected benefits of participation as recruitment expanded from region to region affect threshold levels of initial pro-sociality needed for participation. The estimated effect of -5.81 Rupees corresponds to about a 0.11 standard deviation change in the combined amount sent in the games (the standard deviation of the combined amount sent is 50.69). The size of the effect is not tremendous in magnitude, but the nature of the effect corresponds to theoretical expectations. Thus, we find evidence for the claim that increases in expected benefits of participation tended to reduce the extent to which initial pro-sociality motivated participation.

Table 5 presents estimates that decompose network effects from socialization effects, which were confounded in the within-region coefficient estimates in Table 4. The estimates in the first two columns of Table 5 correspond to coefficient ϕ in expression (4) above, which incorporates fixed effects for the year that individuals joined the insurgency. We find no evidence of network effects by these estimates. Within the boundaries of our theoretical model, algebraic necessity

Figure 5: Decomposing selection effects associated with progress of recruitment across regions



requires that we attribute the pronounced within-region effects that we estimated above in Table 4 to socialization effects. The third and fourth columns of Table 5 characterize this more directly. In these models, we hold fixed participants' joining dates relative to the first joiner in their region (using fixed effects) and examine covariation between prosociality and in overall years in the PLA. The estimated magnitude of these socialization effects are, on a per-year basis, comparable to the magnitude of the effects that we found from the between-region variation above.¹³

In summary, the lab results are consistent with a theory in which individuals' personal pre-existing prosociality partly motivated participation among insurgents who went on to become commanders in the movement, but that changes in the expected benefits of war steadily brought down the extent to which participation was motivated by pro sociality. At the same time, socialization

¹³Indeed, to the extent that the within- and between-region effects are so similar in Table 4 it is an algebraic necessity that there are no pronounced network selection effects and that the within-region effects are driven by socialization.

Table 5: Decomposing network effects from socialization effects

	(1) w/out covs.	(2) w/ covs.	(3) w/out covs.	(4) w/ covs.
Joining date - first joining date in region	-0.93 (1.85)	1.00 (3.29)		
Years in PLA			4.97** (2.48)	9.54*** (3.43)
FE for Years in PLA	Y	Y		
FE for Joining date - first joining date in region			Y	Y
Observations	201	197	201	197
R^2	0.08	0.31	0.08	0.30

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

within the movement appears to have continued to boost commitment to prosocial norms over the time that individuals remained in the movement. The estimated effect of pre-existing social networks appears to be negligible.

6 Punishments Activity Results

Table 6 presents results from the punishments activity, and Figure 6 plots the underlying data as well as a flexible non-parametric regression fit, which displays the relationship between severity of offenses and application of social punishments in a more nuanced manner. From the regression estimate in Table 6, it is clear that more severe infractions, as rated by commanders themselves, tend to incur social punishments at a higher rate (based on our coding of social punishments). Figure 6 demonstrates this fact as well, although it is quite interesting to note that the relationship may not be monotonic. Indeed, at extremely high levels of severity, the relationship seems to reverse course, although the data are sparse. Such a reversal makes perfect sense though: the

Table 6: Social punishments and severity of offense (within-subject variation)

	(1)
Proportion of assigned punishments using social punishments	
Seriousness of offense (standardized)	0.05*** (0.01)
Constant	0.28 (0.01)
Observations (for 204 subjects)	1969
R^2	0.01

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

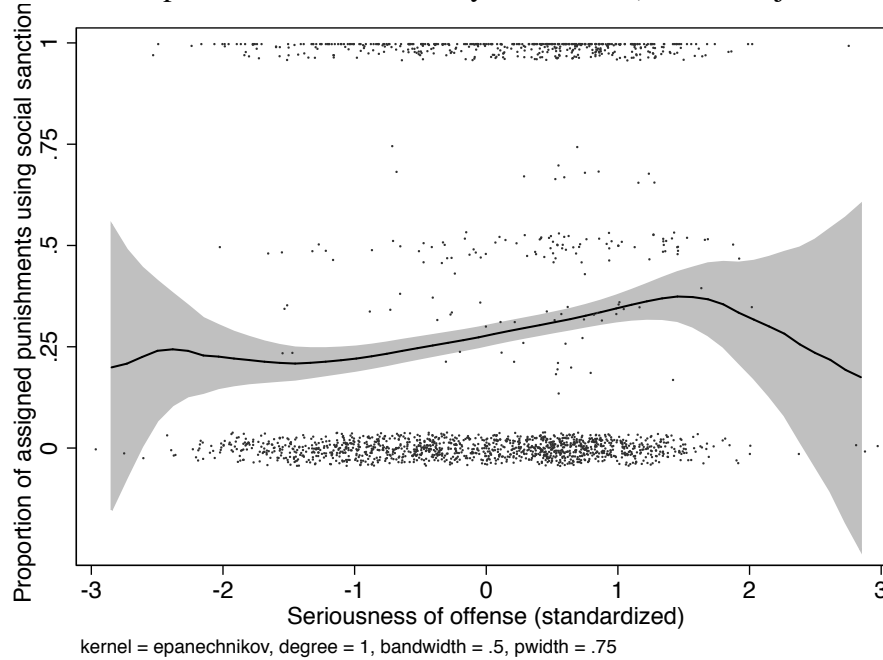
most severe infractions (e.g., murder of innocent civilians or fellow insurgents) would presumably be assigned death as a punishment, in which case the reliance on social punishments are likely to increase only to a point on the severity scale. Altogether, though, the evidence is consistent with an account that has Maoist commanders treating serious infractions by exposing offenders as a deviants from an otherwise solidaristic network, thereby reinforcing the solidarity in insurgent networks.

7 Civilian Survey Results

Our last piece of evidence comes from a survey of Nepalese civilians conducted by the authors in 2009-2010 in 17 districts around the country.¹⁴ The sample was designed as part of a study on the effects of wartime violence in Nepal, and thus it is not meant to be representative of the general population of Nepal. Rather, it is representative of communities that were highly affected by vi-

¹⁴The districts are Achham, Arghanchi, Bajura, Banke, Dang, Dhanusa, Dolakha, Doti, Lamjung, Palpa, Rolpa, Rukum, Rupandehi, Salyan, Sindhuli, Syangja, and Udayapur.

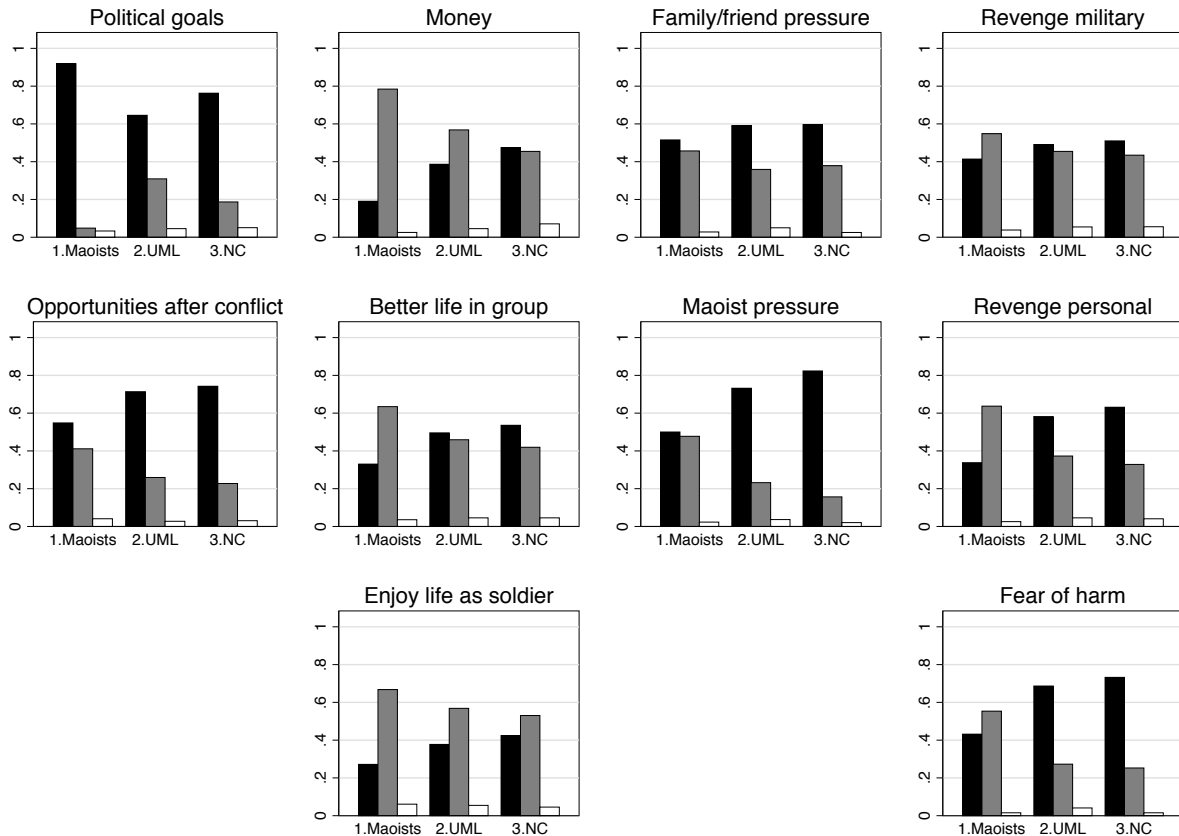
Figure 6: Social punishments and severity of offense (within-subject variation)



olence as well as communities that were not affected by violence but that were selected because they resemble violence-affected communities on the basis of important background factors.¹⁵ For our purposes, the most important thing is that the sample contains a lot of variation in the partisan affiliations of respondents. At the end of that war and during the 2008 elections, the major parties competing in wartime-violence-affected areas were the Maoists, who had transformed from an insurgent organization to a political party operating as the Communist Party of Nepal-Maoist, the Community Party of Nepal-Unified Marxist Leninist (UML), and the Nepali Congress (NC). These three parties were the lead signatories of the 2006 peace accords that brought an end to the war, ended the monarchy, established a republic, and laid the groundwork for the 2008 constituent assembly elections. The parties are also arrayed on the left-right spectrum, with the Maoists repre-

¹⁵Details on the sample design are provided in the supplemental information to Gilligan, Pasquale and Samii (2014).

Figure 7: Civilian responses to “what were motivations for joining Maoists?”



The title on each histogram indicates a possible motivation, and then the histograms show proportions saying “yes” (black bars), “no” (gray bars), and do not know/refused to answer (white bars) for that motivation. Responses are broken down by partisan affiliation, based on responses to a question asking for which party the respondent voted. We only include responses from those who indicated having voted for one of the major parties—Maoists ($N = 394$), Community Party of Nepal-Unified Marxist Leninist (UML, $N = 220$), and Nepali Congress (NC, $N = 198$).

senting the most radical left interests, the NC representing more right leaning (despite the party’s ostensibly socialist roots) establishment, and the UML occupying a centrist position between the two. Both the UML and NC had been in charge of state governments that fought the Maoists during the war period. The three parties were brought into temporary alignment against the king in the run-up to the 2006 peace accords, but then competed heatedly against each other in the 2008 elections.

The partisan affiliations of our respondents are important because they provide for a way to evaluate respondents' expressed opinions about motivations for people to participate in the Maoist insurgency. We would expect Maoist partisans to attribute motivations that are pro-social and goals of societal change. We would expect NC partisans to be much less generous, and more likely to attribute immediately self-serving motivations and goals to the Maoists. The UML would likely fall somewhere in between. That being the case, if we were to find that NC and UML respondents *tend still* to attribute pro-social motivations and outcome-dependent, societal goals to Maoist joiners, this would be a strong indication of the centrality of such motivations in the movement. Figure 7 presents results in relation to this possibility. It shows histograms with the proportion of Maoist, UML, and NC partisans who said "yes" (black bars), "no" (gray bars), or do not know/refuse (white bars) to questions asking about whether members of the Maoist insurgency were motivated by various considerations to join. Each column of histograms represents a different theme: the first column includes histograms showing results for attribution of outcome-dependent motivations associated with political goals and opportunities after conflict; the second column shows results attribution of immediate material incentives; the third shows results for attribution of social (or network) pressures; and the fourth shows results for attributions of revenge and insecurity motives. When it comes to immediate material incentives, social pressures, and revenge or insecurity motives, we see the expected relationship between partisan affiliation and survey responses: NC respondents tend to be the most likely to attribute such unflattering motivations to Maoists, UML second, and Maoists third. As such, partisanship is a clear predictor of whether one is likely to attribute non-programmatic or pro-social motivations for joining. But the key finding shown in Figure 7 is how attributions of outcome-dependent motivations such as support for political goals and opportunities after conflict dominate the types of motivations that respondents attribute to

Maoist joiners. The proportions saying “yes” to political goals and opportunities after conflict are substantially higher than all other motivations, save perhaps for “Maoist pressure.” The set of motivations that receive the least affirmation are those associated with immediate material incentives, and even among NC partisans we see a substantial difference in shares affirming such motivations as compared to political goals or opportunities after conflict. Thus, even partisans who have least motivation to attribute forward-looking and social motivations to Maoists are very likely to do so, especially in contrast to questions about immediate material incentives.

8 Conclusion

Immediate selective incentives and appeals to pro-social norms (often by relying on preexisting social networks) are perhaps the two most prominent means of explaining how insurgencies recruit and motivate their members. We provide evidence that both mechanisms were at work among our sample of Maoist commanders. Pre-existing prosociality motivated participation among insurgents who went on to become commanders in the movement, but changes in the expected benefits of war steadily brought down the extent to which participation was motivated by pro-sociality. At the same time, socialization within the movement appears to have continued to boost commitment to prosocial norms over the time that individuals remained in the movement. Contrary to the findings of several extant studies of participation and effectiveness civil conflict (Costa and Kahn, 2008; Weinstein, 2007; Peterson, 2001; Taylor, 1988), we could find no evidence that pre-existing social networks motivated the commanders in our sample.

The Maoist insurgency in Nepal is a canonical example of Weinstein’s (2007) “activist rebellions.” Like Weinstein’s activist rebellions the Maoists relied on pro-social appeals to recruit and

incentivize its members. But Weinstein's and others' (Costa and Kahn, 2008; Peterson, 2001; Taylor, 1988) characterization of the role of social norms is too static at least in our sample and, we suspect, elsewhere. As the war progressed and the material net benefits of joining increased (due to both an increase in expected benefits and a reduction in expected costs of participating) new recruits who were less innately pro-social were willing to join, thereby expanding substantially the pool of people that the Maoists could recruit from. Indeed if material benefits did not increase and the Maoists had to continue to rely only on highly pro-social recruits it is questionable whether their ranks would have grown enough to mount as serious a challenge to the state as they did.

The aforementioned studies of pro-social motivation are too static in another sense: they do not discuss how insurgent movements can inculcate and strengthen pro-social norms among their recruits. We showed that the Maoists did not have to settle for the pre-existing levels of pro-social norms with which their recruits entered the movement. The Maoists were able to strengthen and grow those preexisting pro-social norms so that commanders exhibited significantly greater pro-sociality the longer they were in the movement even after we control for their higher pre-insurgency level of pro-sociality. The Maoists' reliance on social motivations was corroborated by survey evidence on the punishments that Maoists used to discipline their troops. Punishment that had some social component were used for serious infractions of military discipline.

Critics will no doubt question how generalizable these results are. After all, as mentioned above, the Maoist insurgency in Nepal is a paradigmatic example of an "activist insurgency" where lootable resources are scarce and as such social motivations were important. We agree with this point. We doubt we would have found the same patterns among, say, RUF insurgents in Sierra Leone. However we would also point out that our results do generalize to a large and important category of insurgencies that includes the various movements in the so-called "global Islamic In-

surgency” (Kilcullen 2005, 2010, Gates 2009). It is arguable that the type of socially motivated insurgency we study here is the current norm. Ideally in future work we will be able to compare the results in this study to results from more clearly materially motivated insurgencies. We also hope to compare a relatively successful rebel movement like the Maoists to a failed one in order to see if levels of pro-sociality vary. A further limitation of this analysis is that we do not have information on whether the commanders apply these norms outside of their commander network. Currently planned research will examine whether Maoist commanders exhibit similar patterns of pro-sociality when they are playing with Nepalese civilians.

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