Fight or Flight in Civil War? Evidence from Rebel-Controlled Syria

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Abstract

Faced with prospects of a civil war escalating on their doorstep, ordinary people must decide whether to take up arms and join the fight, to stay in place and seek shelter in confines of the conflict zone, or to flee their homes in search of safer locations. Using original survey and experimental data from the ongoing conflict in Syria, we try to understand how people facing conflict make critical life-and-death decisions. Drawing on a range of hypotheses from the existing literature, we find compelling evidence that in-group ties and grievance motivations explain fight vs. flight decision-making at the individual level. Using well-balanced samples of over 300 Free Syrian Army and Islamist fighters, civilian non-combatants, and externally displaced refugees from actively contested regions of Syria, we observe that people with strong in-group bonds and out-group aversions are more likely to stay and fight. In contrast, refugees are far less revenge-seeking and more willing to negotiate for peace. Overall, our research suggests that heterogeneous preferences and motivations within subpopulations of civil war participants can create serious coordination problems with practical implications for conflict duration and outcomes.

How do different people respond to fight or flight impulses in civil war? Despite a rich theoretical literature on this topic, it is not clear what makes some people risk life and limb to mobilize for violence, others to remain frozen in place in conflict zones despite high probabilities of being injured or killed, while others take considerable travel risks to seek safety in another location. Rational actor models face challenges by high uncertainty in the estimation of risk and reward. Psychological models are limited because of empirical challenges of getting into the cognitive and emotional mindset of rebels and refugees at the critical moment of decision-making. At best, most of our evidence about fight or flight motivations in civil war are post-hoc, with selection on survivors, and stated motivations may be potentially endogenous to conflict processes and outcomes.

Given the importance of the topic but empirical challenges and theoretical unknowns, we attempt to shed light on fight or flight decision-making by examining attitudes and preferences in real time as civil war is actively ongoing. Using survey and experimental evidence from contested areas of Syria, we seek to evaluate a wide range of hypotheses from the literature on civil war participation. In Syria, conflict is still unfolding and outcomes remain uncertain. Rebel fighters and civilians in Syria who participated in our study do not know if they will survive the conflict. The field interviews for this study were conducted at great personal risk. We understood the dangers involved in this project and took necessary precautions that limited the scope of our sampling and research design. Though we will readily admit and speak extensively about limitations of inference from our data, we hope that our efforts will advance our theoretical understanding of the choices people make under threat of violence.

Motivation

Our research focuses on fight or flight motivations during ongoing violence. We have selected rebel-controlled areas of Syria as a critical case to examine existing theories of participation in violence. Most studies of conflict rely on retrospective studies. The advantage of conduct our study in Syria is that we can test hypotheses about conflict as it is still active and evolving. To our knowledge, this is one of the first attempts to sample combatants, civilians, and refugees in a data collection project in conditions of high intensity violence, which we believe is a major gap in the empirical literature.

Our approach is innovative for several reasons. First, almost all of conflict initiation studies are using retrospective surveys to understand determinants of participation in civil war or forced migration. Although such methodologies offer insights into the formation and operation of armed fractions, there are also a number of well-known problems with post-hoc designs. Numerous studies have shown, for example, that information and experiences after an event can influence how people recall the event and color emotional memories (Bartlett, 1932; Loftus 1992; Levine 1997; Safer et. al. 2002)[1]. Collective memory, i.e. ''the representation of the past embodied in both historical evidence and commemorative symbolism'' (Schwartz 2000, p.8) could also bias the recall of critical decisions and events (Harris et. al. 2008). The timing and location of our study (during conflict in contested areas) gives us a clearer understanding of how

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[1] Safer et. al. (2001) and Levin et. al. (2001) show that recalled emotions about a tragic event are better correlated with current feelings of grief that with an actual grief reported at the time of event. Safer et. al. (2002) show that recalled emotions are biased by information acquired later.

a person is making decisions and rationalizing those decisions in real time when outcomes are still unknown.

Second, there is selection bias in the methodology of surveying and interviewing people after conflict. Obviously, only those who survive can be surveyed, and we do not know how people who survive differ from those who do not. If participation in conflict increases the likelihood of victimization, then they would be selected out of retrospective studies. We attempt to overcome the retrospective selection bias problem by surveying people not only on the front lines, but in areas of different intensity of conflict both in combatant and non-combatant roles.

Third, our study takes place in the absence of any coordinated international peacekeeping intervention in the field. Conducting research under the security umbrella of peacekeeping forces would be much safer than what we have attempted to do, but then we are no longer studying decision-making under active conflict, but under third-party enforcement and monitoring. The peacekeeping literature emphasizes how third party interventions can significantly alter individual and group level decision-making and behavior in the field (Doyle and Sambanis 2000; Fortna 2004). Our research is conducted during ongoing violence and before any international even humanitarian intervention has taken place – something that no previous empirical study has done. Even studies in Iraq and Afghanistan, for example, are *ex post* major coordinated third-party interventions.

Fourth, although previous studies (ex. Humphreys and Weinstein 2008) have conducted surveys and interviews with both ex-combatants and noncombatants, we are going further by considering a broader range of subpopulations to include recent rebel recruits, refugees who have just arrived in camps, and who have change roles in the course of the conflict. Our multi-group approach allows us to compare marginal differences between civilians, combatants, refugees, and different rebel factions at a time when they are actively playing out their respective roles.

Fifth, previous studies examine participation by asking people direct questions like "why did you join group x?" or "why did you decide to leave?". While these questions are important to identifying individuals' stated rationales and intentions, they may also be subject to a range of desirability and acquisition biases and interviewer effects, especially in a retrospective study where people may have incentives not to reveal their past affiliations or motives. In our study, we seek to uncover revealed motives for joining rebel groups, staying in conflict zones, and fleeing abroad, relying on cross-comparisons between subsamples of fighters, civilians, and refugees to identify meaningful between-group differences. We employ conventional direct questions of intent as a robustness check on our indirect approach to revealed motives.

Finally, we employ multi-method approach that includes behavioral experimental methods embedded within a comprehensive survey. Following Parkinson (2013, p.3), we supplement or data analysis with ethnographic research as a way to "build trust" and "gain access to the insider perspectives, experiences, and meaning-making practices".[2]

The remainder of our study is outlined as follows. First, we present an overview of theoretical perspectives and hypotheses on civil war participation and refugee flight in the literature. Next, we discuss aspects of our research design and data collection followed by the results of our hypotheses tests. We conclude with a discussion about the broader implications of our findings.

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[2] In addition to Parkinson (2013) see also Bayard de Volo and Schatz (2004) and Wedeen (2010) for recent discussion of ethnographic methods in field research.

Theory and Hypotheses in the Literature

Our study attempts to inventory and compile a diverse group of perspectives and hypotheses on civilian flight and combatant participation in violence. Rather than singling out one or two leading arguments, we seek to evaluate a wide range of competing hypotheses in the literature using our own survey, experimental and ethnographic methods.

First, we are informed by the literature on civilians in conflict. Although previous research has examined the targeting of civilians during the civil war (Valentino, Huth and Balch-Lindsay 2004, Kalyvas 2002; Lyall et. al. 2013) and government and insurgent efforts at winning over civilian hearts and minds (Beath, Christia and Enikolopov forthcoming), little is known about who civilians are and their reasons for staying in a combat zone in the first place. Adhikari (2013), using the case of Nepal, has made important steps trying to understand why some people stay while others leave on the micro-level and his results reinforce evidence from prior large-N studies (Schmeidl 1997; Davenport, Moore, and Poe 2003; Moore and Shellman 2004, 2006, 2007). Adhikari's (2013) empirical analysis confirms how exposure to violence and the threat of further violence motivates civilian flight. But he also finds that economic means and opportunity costs are important predictors of which civilians leave and which stay behind. We aim to expand on economic incentives for flight, and also introduce other alternative motivations.

Next, we rely heavily on an established literature on conflict participation. Previous research has emphasized how cost-benefit calculations Olson (1965), relative deprivation (Gurr 1970), in-group ties and bonds (Horowitz 2000; Wood 2003), and out-group aversions (Peterson 2002) drive people to mobilize for violence. At present, the field is increasingly turning to survey instruments to answer the key questions of why some people join armed groups, and we follow their lead in Syria. Much of this survey literature examines various grievance and relative deprivation motives. Humphreys and Weinstein (2008), studying fractions in Sierra Leone's civil war, show that grievance and frustration lead to greater susceptibility to engage in violence and greater vulnerability to political manipulations. Examining non-traditional fighters, including Hezbollah fighters and suicide bombers, Krueger and Maleckova (2003) also found that their decision to mobilize was in response to long-standing grievances and frustrations. Arjona and Kalyvas (2008), also using survey data, find that political grievances and economic deprivation were the driving force of mobilization for violence in Colombia. However, recent survey research from Iraq, Afghanistan and Philippines by Berman et. al (2011) finds a negative correlation between unemployment and political violence. Also in Pakistan, Blair et all (2012) show that poor people like militant groups less than the middle class, casting some doubt about relative deprivation at the individual level. Moving beyond grievances, Guichaoua (2007) finds that uncertainty about the future, desires for protection, and social proximity to rebel groups also explain success in rebel recruiting. Our research is greatly influenced by these studies, especially Humphreys and Weinstein (2008).

We also draw inspiration from both quantitative macro-historical and qualitative anthropological research which emphasizes the blurring of lines between civilians and combatants, and what it means to mobilize and participate in civil war. Wood (2003) has posited a "pleasure in agency" model, which involves complex in-group ties between rebels and civilians in conflict in El Salvador. Parkinson (2013) has also signaled important roles that women affiliated with fighters played during the civil war in Lebanon, challenging conventional notions of what it means to be a combatant during wartime, and how combatants rely on active civilian affiliates to make what they do on the frontlines possible. Finally, based on evidence from the

Greek Civil War, Kalyvas (2006) illustrates how challenges of identifying combatant from non-combatant and friend from foe heighten fears and uncertainty that precipitate brutal mass violence. Our research will attempt to address ambiguities between civilians and combatants through the use of comparative subsamples of rebel groups, civilians, and refugees in multiple areas of contestation.

We now identify a range of hypotheses that have been posited in the aforementioned literature that we aim to evaluate in our study. We have grouped these hypotheses into five broad categories: Selective Incentives, Social Sanctioning, Social Identity, Risk Tolerance, and Grievance. In testing each hypothesis, we seek to gain a better understanding of who fights, who leaves, who decides to stay in place and why.

Selective Incentive Hypotheses: We begin with selective incentive hypotheses for fighting. We consider the possibility that fighters are motivated to join by either selective economic incentives or enhanced safety, security offered by rebel groups, and limited opportunity costs (Humphreys and Weinstein 2008; Adhikari 2013). This presumes that by fighting, people are able to extract economic resource and security benefits that they would not receive if they do not fight. It also assumes fighters have limited viable alternatives to fighting, so selective benefits have a great deal of appeal to them. Hence, rebel groups are using selective incentives to overcome free-rider problems in combatant recruitment. We test the following hypotheses:

H1: (*Greed*) People receive selective incentives in the form of economic benefits from fighting with a rebel group.

H2: (*Security*) People feel safer/more protected inside a rebel group than outside it.

H3: (*Opportunity Costs*): People with other viable opportunities will be less willing to join rebel groups and have greater means and incentives to flee abroad.

Social Sanctioning Hypotheses: Next we examine whether individuals are compelled to join combatant groups, stay or leave conflict based on social pressures and attachments to their communities (Wood 2003; Humphreys and Weinstein 2008). We hypothesize that individuals who are attached to their communities and who are more actively engaged in community social life would face greater pressure either to join combatant groups to protect their communities, or at least to stay behind to help out than those who are more social distant and less engaged. By contrast, people who feel more socially distant from others and are less engaged in their immediate surroundings would be less susceptible to sanctioning pressures. We consider the following hypotheses:

H4: (*Ties to the Community*). People who feel closer to their communities are more likely to remain in place and join rebel groups than people who are more socially distant, who are more likely to flee.

H5: (*Social Engagement*) People who are more social engaged are more likely to join rebel groups and remain in a conflict zone than people who are less socially engaged, who are more likely to flee.

Social Identity Hypotheses: Next, we examine whether individuals who stay in Syria and join rebel groups are in search of a meaningful social identity (Wickham-Crowley 1992; Gould 1995; Horowitz 2000, 2001). We hypothesize that if social identity motivates civilians and combatants to stay inside Syria, they should feel closer to rebel fighters than refugees. We also consider the hypothesis that individuals who fight take "pleasure in agency" and that individuals who stay in combat zones are doing so voluntarily in order to assist those who fight (Wood 2003). We test the rival contrarian hypothesis that people who stay in combat areas feel trapped and lack a sense of agency or control over their lives and are merely victims of circumstance.

H6 (*Group Bonding*) People who feel close to one another and to rebel groups are more likely to remain in a conflict zone and join rebel groups. People with little group attachments are likely to flee.

H7 (*Pleasure in Agency*) People who remain in a conflict zone and join rebel groups feel more empowered from participating in a cause, compared to people who flee.

H8 (*Loss of Agency*) People feel trapped and unhappy in their respective roles, be it rebel fighter, civilian, or refugee.

Risk Tolerance: Next, we consider whether the decision to stay in a combat zone or flee abroad is a basic function of risk tolerance. Theoretically, risk taking could be a function of other driving motivations, such as pleasure in agency, group bonding, or grievances. People with stronger group ties, deeper political grievances, etc. are willing to assume greater risks to achieve their goals. There may also be psychological predispositions to risk, where more risk-averse people are naturally compelled to seek safety, while risk tolerant people will remain close to the action. Heightened risk tolerance could also be a psychological product of "pleasure in agency" (Wood 2003). We ask whether people who join rebel groups and stay inside combat zones are big risk-takers. They are either attracted to the dangers of combat or are simply willing to incur risks to obtain specific goals that others are not willing to undertake. We examine the following hypotheses about risk.

H9 (*Risk Tolerance*) People who join rebel groups have higher risk tolerance than non-combatants. People who flee conflict have lowest risk tolerance.

H10 (*Risk and Conflict*) High conflict areas select on highly risk tolerant people. Risk averse people flee conflict for safer areas.

Grievance Hypotheses: Next, we examine whether people who mobilize for violence are driven by person or collective grievances against their adversaries (Humphreys and Weinstein 2008; Arjona and Kalyvas 2008). Relative deprivation theory informs us that people are more likely to mobilize for violence when they are marginalized from political decision-making, economically disempowered, and afforded inferior social status within their societies (Gurr 1970; Tilly and Tarrow 2006). Common perceptions of the Syrian conflict tells us that members of the Sunni majority are in revolt against the regime of Bashar Al-Assad, who is also from the Alawite religious minority, but this may be a gross oversimplification (see Seale 1986 and Heydemann 1999 for historical background and Pierret 2013; Hashemi and Postel 2013 for alternate

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perspectives on the current conflict). However, relative deprivation at the group-level does not explain why some members of the group rebel while others do not. It is presently unclear the extent to which the revolt against the Assad regime is fueled by collective grievances against the Alawites, political grievances against Assad's regime, and/or grievances resulting from personal experiences of brutality at the hands of the regime. We attempt to unpack grievances to understand why some Sunni Muslims stay and fight the Assad regime while others do not.

We begin with personal grievances brought on by victimization at the hands of the regime. If personal grievances are driving mobilization, then we should expect victims of violence to be more likely to join rebel groups to fight against the regime. Another possibility is that mobilization depends on the type of victimization. People who are personally injured would be unable to fight if the injury is severe. People whose houses are destroyed may have to deal with relocating their families. We evaluate the following hypotheses on grievance from personal victimization.

H11 (*Personal Grievance*) Victimization by violence increases the likelihood of joining rebel groups and/or fleeing violence. Non-victims are most likely to remain in place, but not join rebel groups.

Next, we turn to sources of collective grievances. We begin by examining sectarian group-level grievances between Sunni Muslims and Alawites. We note that our sample is almost entirely Sunni Muslim and sectarian divisions are often presumed in the conflict between rebel forces and Bashar al-Assad's regime, because Assad is a member of the Alawite minority (though the aforementioned case literature shows how this is an oversimplification of complex divisions in Syrian society). If deep-seated sectarian grievances are fueling the conflict, then Assad merely represents a proxy for deprivation grievances against Alawites. If the Syrian conflict can be accurately characterized as sectarian, then we would anticipate that Sunni Muslims who are more parochial would be driven to fight while those with less attachment to Sunni Islam or less aversion to Alawites would flee.

H12 (*In-group Ties*) People with stronger attachments to their in-group are more likely to stay and fight. People with more limited in-group ties are more likely to flee.

H13 (*Out-group Aversion*) People with stronger aversions to their sectarian out-group are more likely to stay and fight. People with lesser out-group aversions are more likely to flee.

Finally, we consider political/regime grievances against the Assad regime. We reason that people who harbor political grievances against the regime, either for acts committed before or during the war, would be less willing to negotiate with the regime in the interest of peace. In other words, people with strong political grievances will be unwilling to compromise with a political adversary, settling for no less than absolute victory and vengeance against their political opponents. The goal is not political power-sharing, but vanquishing a political foe. We also suspect that rebel forces will be unwilling to grant amnesty to Assad's forces, forgoing justice in the interests of post-war peace.

H14 (*Military Victory*): Rebel fighters will prefer an absolute military victory, while civilians will be more willing to negotiate for peace. Those who flee conflict will be most favorable to negotiating for peace.

H15 (*Justice and Accountability*): Rebel fighters will be least willing to grant amnesty to their opponents than civilians as part of any peace negotiations. Refugees will be more willing to trade justice and accountability for peace.

Collectively, these hypotheses are drawn from a wide range of theoretical and empirical research on conflict. In testing each individual hypothesis, we are not trying to pick a winner, but instead, understand how nuances of decision-making during conflict are captured by competing perspectives from the literature, using novel data from an important case of violence at a critical moment when violence is still ongoing, and people are still actively deciding what to do.

Research Design

Our research employs a multi-method approach consisting of survey, experiments, and in-depth interviews. As such, our research focuses on conflict at the micro and meso-levels, examining how individuals are affected by violence within their local environment. For ecological validity, we conduct our study in multiple locations, at multiple points in time, and among various sub-populations of interest to include civilians, rebel fighters, and refugees.

All subjects recruited for our study begin by taking part in several decision-making tasks which can be described as modified dictator games. Dictator games have been shown to be a useful instrument for gaging altruistic behavior toward anonymous recipients under a range of different treatments (see Engel 2011 for a meta-analysis). We use the dictator game to examine behavioral evidence of in-group cohesion and out-group aversion relevant to our empirical tests of social identity and grievance hypotheses. Each subject must decide how to divide a sum of money between themselves and anonymous counterparts of varying identity. We incentivize self-interest by offering randomized pay-offs for whatever is kept by the subject in each experiment. The dictator games are followed by a series of risk games. Each subject must decide between a sure pay-off or choosing among several chance pay-offs with different pay-off amounts and probabilities. The risk games are included to provide a behavioral measure of risk tolerance and with adaptations of the Eckel and Grossman (2002) and Hold and Laury (2002) protocols[3].

Following the experiments, subjects took part in a survey. Our survey instrument is wide-ranging, encompassing a number of themes. It begins with an emotional battery, followed by demographics, rebel group involvement, refugee status, and then attitudinal questions about perceptions of safety and security, general outlook for the future, ethnicity, religiosity, social identity and inter-group relations. We then introduce questions specifically about the Syrian conflict including views of different combatant groups, the peace process, international interventions, and Syria's future to include preferences for democracy and post-war reconciliation. We conclude the survey with questions about victimization by violence, displacement, and property damage.

Following the survey, additional data were collected on the level of comfort with the location of the interview and the questions asked by the interviewer. We also included similar questions for the interviewer about safety and comfort levels while conducting each interview.

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[3] Experimental protocols are provided in a supplementary appendix to the manuscript.

With the exception of the Islamists, every subject was paid a minimum of $5 for their participation in the study, which generally took between 45 minutes to an hour to complete[4]. All interviews were conducted by one of the authors, face-to-face, in Arabic, with assurances of privacy and confidentiality in what both the subject and interviewer deemed to be a safe location. No identifiable information was recorded that could link an individual subject to a given survey. The project received IRB approval where subjects gave consent to participate in the research at the beginning of each interview using a written consent form and were debriefed at the completion of the study.

Data Collection

Data collection was a major challenge for this project due to very real dangers posed to our interviewer inside Syria. Unknown population parameters and security concerns precluded the possibility of random sampling. Instead, we rely on non-probability based cluster sampling. We identify two locations inside Syria front lines with different combat intensity. We sampled in and around Aleppo, Syria's second largest city and the place of the major battles, which will serve as an environment of high intensity exposure to violence. As a comparison point, we sample in and around the city of Idlib, which was also experiencing violence, though to a lesser extent than Aleppo, and is generally was considered a safer area for rebel forces and civilians at the time of research.

For recruitment of civilians, we avoid random route sampling due to inherent uncertainties and dangers of movement from street to street. We also refrain from door-to-door sampling to protect our interviewer. Instead, we identify areas of the city, locations where civilians are congregated in public. These clusters are our initial sampling point. Interviews are conducted with no more than five respondents per cluster and no more than two clusters for a given street or neighborhood. We limit our interviews to 1 person per household or extended family. If multiple family members are able and willing to participate, we select one family member at random. Each interview was conducted in an open, public location for safety concerns, but the interviewer kept a distance from crowds to ensure privacy, and did not permit others to listen in on the interview once in progress.

To deal with selection effects resulting from massive displacement by violence, we interview internally displaced persons inside Aleppo and Idlib, as well as a sample of refugees from a UNHCR run refugee camp in Kilis Turkey, which is just across the border from Syria and a primary destination for refugees fleeing the Aleppo and Idlib regions. Inside the camp, the interviewer followed a random route, interviewing no more than 1 per household and no more than five subjects on a given street or pathway.

For interviews with rebel fighters, we sample from two predominant groups – rebels fighting with the Free Syrian Army (FSA) and Islamists with various groups including Al-Nusra Front and the Islamic Front/Ahrar ash-Sham[5]. We identify locations where rebel fighters are currently stationed based on local knowledge. Interviews of FSA rebels are conducted in both

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[4] Islamists were not provided any monetary incentive to participate in the study due to prohibitions on providing material aid to groups that may be considered terrorists organizations by the U.S. government.

[5] Our sample size is not large enough to conduct statistical comparisons between various Islamist groups. Most of our sample of Islamists are from the Islamic Front/Ahrar Ash-Sham.

Aleppo and Idlib regions. Interviews with Islamists are only in the Idlib area. Our interviewer was granted permission to conduct surveys with FSA rebel fighters by their superiors and by an informal "Islamic court" for interviews with Islamist fighters (including fighters from Al-Nusra Front, the Islamic Front/Ahrar Al-Sham). While conducting extensive qualitative interviews with people on all levels of the chain of command, we limited our survey only to rank-and-file FSA and Islamist fighters, not officers or unit leaders. For a given unit or cluster of FSA or Islamist rebels, we interview no more than five soldiers per cluster or unit.

Because of safety and security concerns as well as practical challenges of conducting field research, we conducted our study incrementally from August 2013 till April 2014 in a series of month-long waves. Our response rate was over 80% in each location among those contacted for an interview, which we believe is due in part to financial incentives to participate in the study. Even rebel fighters had periods of down time during the conflict and were eager to express their views. In total 305 subjects took part in the study as indicated in Table 1 below. We note that our samples are remarkably well-balanced across gender, age, education, and whether the subject was employed before the war began (a proxy for pre-war income/savings). Nevertheless, we include extended controls for demographics in our subsequent analysis. We also use covariate matching techniques (propensity score matching, coarsened exact matching) for robustness checks.

Table 1. Descriptive Statistics

	Mean	SD	N
FSA fighters	0.20	0.40	305
Islamist fighters	0.16	0.37	305
Civilians inside Syria	0.28	0.45	305
Refugees in Turkey	0.20	0.40	305
Ex-FSA in Turkey	0.16	0.37	305
Aleppo	0.31	0.46	305
Idlib	0.33	0.47	305
Turkey	0.36	0.48	305
Female	0.12	0.33	305
Age	29.80	9.39	296
Education	2.47	0.72	296
Employed	0.84	0.37	297

Balance across sub-samples (Combined KS-statistics)

	Fighters vs. non-fighters	Fighters vs. civilians	Fighters vs. refugees	FSA vs. Islamists	Refugees vs. Civilians
Female	0.12	0.14	0.10	0.09	0.03
Age	0.13	0.09	0.19*	0.18	0.12
Education	0.07	0.10	0.03	0.07	0.09

Employed	0.00	0.06	0.07	0.04	0.13
N	305	245	220	160	145

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

In summary, we acknowledge the limitations of our data. We have no way to estimate the true population and are unable to draw a random sample. The sample we have collected is non-random and we have limited observations, which were collected over an extended period of time, and security concerns prevented us from sampling among certain sub-groups such as forces loyal to the Assad regime and more radical Islamist groups. Though far from ideal, our data was collected by a trained researcher with intimate ethnographic knowledge of the field, with difficult to reach populations in an extremely challenging and dangerous environment[6].

Results

We present empirical tests of our hypotheses in four parts. We begin with a group of selective incentive and social sanctioning hypotheses followed by social identity, pleasure in agency, risk tolerance, and finally grievance hypotheses. For each empirical test, we employ regression models which include locational fixed effects, robust standard errors, and extended controls for gender, age, education, and prior employment. To economize space, we only report results from key variables of interest here, but the full models with extended controls are included in a supplementary appendix.

Selective Incentive Hypotheses

In Table 2, we provide empirical tests of selective incentive hypotheses H1 (*Greed*) and H2 (*Security*) respectively. For H1, we consider evidence for whether people expected to receive selective economic benefits from joining a rebel group. Because soldiers in the Free Syrian Army and Islamist groups were unpaid volunteers at the time of our study, there is no salary information to consider. However, it may be that soldiers receive better access to food, water, housing, and other basic necessities that are unavailable to civilians. Of course, it may be possible that these benefits are not directly provided by the rebel organization, but commanders encourage or turn a blind eye to looting and pillaging, as compensation for lack of salary. To test H1, we ask all respondents in our sample "How would you describe your ability to gain access to the following - good, somewhat limited, very limited, or not at all?" Items included food, clean water, housing/shelter, medical supplies, fuel, electricity, and communication technology (radio, TV, phone, internet). We develop a 10-item alpha scale of access to resources. The access to resources index scales very well (Cronbach's alpha = 0.88) indicating that individual responses to each item were highly inter-correlated i.e. people with access to one item tended to have access to others. In an environment where labor markets are disrupted, this access to resource

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[6] In addition to the surveys, one of the authors conducted hundreds of qualitative in-depth interviews both before the revolution began and over the course of the last three years of ongoing conflict with various rebel groups including members of FSA, Islamist groups, foreign fighters, civilians, refugees, pro-government and rebel-group elites.

index serves as our proxy for income, available savings, and general ability to acquire essential goods and services.

Table 2 indicates results from OLS regression on access to resources with fixed effects by location (Aleppo, Idlib, Kilis Turkey, and Gaziantep Turkey) using robust standard errors. The first model (1.a) indicates no difference in access to resources between rebel fighters and Syrian civilians inside Syria. The second model (1.b) shows that refugees have much better access to resources in their camp than either civilians or active combatants inside Syria. Unless otherwise noted, all regression inferences include locational fixed effects, extended demographic controls (gender, age, education, prior employment), with robust standard errors in parenthesis. Full models are provided in a supplementary appendix to this manuscript.

Next we evaluate H2 (*Security*) and whether people may derive security benefits from joining rebel groups than are not provided to civilians. We employ three proxies for security. The first is perceptional. We ask subjects "How safe do you feel in your current location today – very safe, somewhat safe, not very safe, or not safe at all?" Table 2 Model 2.a and 2.b indicate that rebel fighters feel less safe than civilians. Refugees and ex-Fighters in Turkey feel most safe. We also ask all subjects inside Syria to indicate whether they had recently witnessed violence and whether they had nearly avoided injury. Compared to civilians, rebel fighters are more likely to be exposed to violent events and subject to injury (Models 2.c-d).

Finally, we consider the possibility that rebel recruitment is affected by labor market *opportunity costs* (H3). Here we use education as a proxy for opportunity costs, with the assumption that more educated people are less likely to join rebel groups because of viable alternative opportunities for employment either inside Syria or abroad. However, as previously noted in our discussion on sampling (Table 1), our respondents are well-balanced by education. In regression analysis, rebel fighters are not significantly less educated than civilians or refugees (Table 2 Model H3.a). Our samples are also well-balanced on prior employment, indicating that FSA fighters, civilians, and refugees do not vary substantively in terms of prior employment histories (Model H3.b). In a supplementary appendix, we break down prior employment into skilled professional (white collar), manual (blue collar) and student categories and find no significant differences between FSA, Islamist rebels, civilians, and refugees in terms of prior employment backgrounds. Consistent with prior findings by Berman et. al. (2011), FSA rebel fighters, civilians, and refugees come from similar walks of life. Higher educated persons with marketable skills are apparently discounting opportunity costs when joining rebel forces.

Overall, we find that it does not pay to join rebel forces, and there is a great deal of ethnographic evidence that the FSA especially struggles to provide their soldiers with basic provisions including weapons and ammunition to defend themselves in combat. In contrast, there are clear benefits to leaving Syria. Refugees are much better provided for in Turkish camps than civilians who remain in Syria and feel safer. Hence, there is little support for hypotheses that fighters are mobilizing for the sake of selective economic and/or security benefits to overcome free-rider problems. Leaving Syria is the most rational choice.

Social Sanctioning Hypotheses

First, we consider the role of social sanctioning in driving individuals to become combatants, to stay and/or leave the country. As a proxy for social pressures, we use social distance measure of attachments to one's community. Our reasoning here is that people who feel more socially distant from others in their immediate surroundings would be less susceptible to

sanctioning pressures. To examine the impact of *ties to the community* (H4), we ask all respondents "In general, how close do you feel to other people in your community/home in Syria – very close, somewhat close, not very close, not close at all?" Table 2 Models 4.a-b provide OLS regression results on social distance responses and reveal some indirect evidence in support of social sanctioning pressure. Compared to rebel fighters and civilian refugees (Model 4a), refugees feel less close to members of their community and appear to have voted with their feet. However, excluding refugees (Model 4b) rebel fighters are indistinguishable from civilians in their communities on social distance. Hence, social sanctioning may help understand motivations to stay vs. leave, but not necessarily whether to fight.

Next, we examine whether people with stronger social engagement in their communities are more likely to join rebel groups and stay in Syria than people who are less *socially engaged* (H5). Given that Syria was an authoritarian regime with limited opportunity for free political association, we consider the role of religious engagement. Virtually everyone we interviewed (99%) identified as religious, where the vast majority (97%) are Sunni Muslims. Hence, religious communities could be an important form of social sanctioning pressure, either at the community level or more broadly. We have noted that fighters do not have greater access to communication technology than civilians in our sample, so fighters are not necessarily more susceptible to pressures from afar. Also, because the war has greatly disrupted community life, we do not feel that mosque attendance is an effective proxy for religious engagement. In addition, fighters may be unable to formally attend mosque services due to their deployments.

Therefore, we rely on self-reported religiosity as a proxy for religious engagement. Our rationale here is that individuals who purport stronger religious ties are more likely to have attended mosque services in the past and more likely to be in touch with those who could exert pressures on them to join combatant groups or to stay in Syria. We ask subjects "In general, how important are your religious beliefs to you in your daily life – very important, somewhat important, not very important, or not at all important?" and "Since the war started do you think you have become more religions, less religious, or are about the same?" Models 5a-5b indicate that FSA rebel fighters are not self-reportedly more religious or have become more religious since the war began compared to Syrian civilians and refugees. In contrast, Islamists identify as strongly religious and their faith appears to have intensified since the start of the conflict. From ethnographic evidence, religion is not the only reason some rebels forgo the moderate and quasi-secular Free Syrian Army in favor of Islamists. Increased religiosity could be a consequence of joining Islamist groups as much as a cause.[7]

In summary, there is little evidence of that social and religious sanctioning pressures are driving civilians to join the Free Syrian Army, but they could play a greater role for Islamists. Sanctioning pressures, however, may also help understand refugee flight. We find that refugees are the most socially distant from their home communities in Syria compared to the others who stay behind. Overall, there is stronger evidence for social sanctioning pressure than selective incentives to join rebel groups, stay behind, or flee abroad.

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[7] Some rebel fighters join Islamists after switching from the Free Syrian Army for tactical reasons related to group organization and access to resources, but become indoctrinated by Islamic radicals after joining. In Pakistan, Malhotra and Shapiro (2012) also found that that religious practice and support for political Islam are not correlated with support for militant groups.

Table 2. Selective Incentives and Social Sanctioning

	Selective Incentive Hypotheses					
Hypotheses	FSA Fighters	Islamist Fighters	Civilians in Syria	Ex-FSA In Turkey	Refugees In Turkey	N
(1.a) Access to resources	-0.041 (0.155)	0.545*** (0.119)	2.499*** (0.0320)			175
(1.b) Access to resources	-1.382*** (0.194)	-0.807*** (0.051)	-1.343*** (0.065)		3.767*** (0.065)	234
(2.a) Safety in current location	-0.055 (0.075)	0.590*** (0.221)	2.017*** (0.334)			173
(2.b) Safety in current location	-1.142*** (0.0702)	-0.479*** (0.0326)	-1.082*** (0.141)	0.625*** (0.037)	3.184*** (0.126)	265
(2.c) Saw violence recently	1.021** (0.410)	1.417** (0.709)	1.744* (1.059)			175
(2.d) Nearly injured recently	0.885** (0.375)	1.564*** (0.445)	-0.497 (0.970)			175
(3.a) Education	0.170 (0.121)	-0.0504 (0.129)	0.233* (0.122)	-0.333** (0.148)	2.433*** (0.093)	296
(3.b) Prior employment	0.098 (0.071)	0.046 (0.079)	0.073 (0.078)	0.133** (0.065)	0.767*** (.055)	297
	Social Sanctioning Hypotheses					
(4.a) Social distance in community	-0.791*** (0.265)	-0.817*** (0.027)	-0.610*** (0.135)	-0.424*** (0.032)	2.406*** (0.091)	282
(4.b) Social distance in community	-0.192 (0.183)	-0.168 (0.229)	1.670*** (0.320)			173
(5.a) Importance of Religion	-0.303 (0.188)	0.476*** (0.028)	-0.799*** (0.226)	-0.301*** (0.033)	3.617*** (0.121)	283
(5.b) More religious since war began?	-0.147 (0.094)	0.260*** (0.020)	-0.183 (0.174)	0.0680** (0.030)	1.801*** (0.201)	284

NOTE: models include locational fixed effects, extended controls for gender, age, education, prior employment, robust standard errors in parentheses. Refugees are the constant term in Models 1.b, 2.b, 3-5. Civilians in Syria are the constant term for other models. Models 2.c-d estimated with Logit. All other models are OLS.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Social Identity and "Pleasure in Agency"

First, we explore whether people who fight and people who stay in combat zones really represent one big community. Social identity theory tells us that people seek out meaningful group identities (Tajfel and Turner 1979). We examine H6 (*Group Bonding*) that people who feel close to one another and to rebel groups are more likely to stay in Syria and join up rebel groups. To test this hypothesis, we use attitudinal as well as experimental behavioral data to evaluate whether people in combat zones coalesce into a common community. Our reasoning is that if a desire for social cohesion is driving people to stay, then people in combant zones (both rebel fighters and civilians) should have stronger bonds with one another than refugee communities abroad.

In Table 3 below we analyze a range of social distance instruments. We ask "How close do you feel to the following people [in your current location, FSA fighters, Islamist fighters, and foreign fighters]?", where responses range from 1 = not close at all to 4 = very close. First, we compare how close refugees feel to people in their camp compared to civilians and combatants in their current location (Model 6.a). FSA combatants are not any more close-knit than refugee communities of Syrian, but Islamists and civilians appear to have stronger bonds with people in their immediate vicinity. Models 6.b-f reveal that civilians feel more distant toward both the Free Syrian Army and Islamist fighter groups, undermining the logic that they all hang together. For example, less than 10% of civilians regard extreme Islamist groups like ISIS favorably.

In Models 6.f-g, we examine group cohesion behaviorally using dictator games. When asked to allocate a sum of 0-500 Syrian Pounds (approximately $5) between themselves and another person in their current location, everyone was remarkably altruistic, transferring almost all their endowment to the other person (6.f). In contrast, Syrian civilians were less generous when we informed them that the recipient would be a soldier fighting for FSA (6.g). In general, differences between what civilians give compared to fighters and refugees are extremely marginal in both experiments. We interpret these results to mean that if one were seeking to bond with others, group bonding inside a refugee camp may be as strong as group bonding within a combat zone. One does not necessarily give up a sense of community by going abroad, especially if communities are essentially recreated inside camps. Infighting between FSA and Islamists, with civilians caught in the crossfire is also not indicative of a strong, close-knit-rebel community.

Table 3. Social Identity and Group Cohesion

Social Identity Hypotheses						
Hypotheses	FSA Fighters	Islamist Fighters	Civilians in Syria	Ex-FSA In Turkey	Refugees In Turkey	N
(6.a) Close to people in current location	0.425 (0.302)	0.511*** (0.145)	0.281** (0.109)		3.220*** (0.220)	241
(6.b) Close to FSA	0.106 (0.0799)	-0.262*** (0.0458)	-0.604*** (0.160)	0.0219 (0.0601)	3.181*** (0.323)	279
(6.c) Close to Islamist groups	0.190* (0.111)	1.019*** (0.0365)	-0.378*** (0.0280)	0.346*** (0.0494)	3.012*** (0.115)	279

(6.d) Close to foreign fighters	0.153 (0.154)	-0.237*** (0.0409)	0.287*** (0.00884)	2.713*** (0.288)	218
(6.e) Close to ISIS	0.468*** (0.00857)	0.301*** (0.00740)	-0.305*** (0.0192)	1.133*** (0.230)	158
(6.f) Altruism toward locals	-6.548 (21.47)	-11.15** (4.683)		420.7*** (12.57)	187
(6.g) Altruism toward FSA	102.7 (98.90)	-30.83* (16.86)	52.05*** (14.21)	306.8*** (60.35)	217

NOTE: models estimated by OLS regression with locational fixed effects, extended controls for gender, age, education, prior employment, robust standard errors in parentheses. Refugees are the constant term.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Next we consider rival "Pleasure in Agency" and "Lack of Agency" Hypotheses (H7 and H8). To test these hypotheses, we first look to people's emotional states. We examine whether people in combat zones have elevated positive and or negative affect as measured by a modified PANAS-X scale. We reason that if people either feel intensive pleasure in agency or lack thereof, it could be manifest through emotional responses to violence. At the beginning of the survey, subjects are read a list of emotions people sometimes feel, and then asked to indicate on a five point scale how often they have felt those emotions recently. The scale ranges from 1 = very slightly or not at all to 5 = extremely. Table 4 reports regression analysis on responses to the battery of emotional categories. On the negative affect side (Models 7.a-e), refugees appear most emotionally affected while fighters the least. Refugees express stronger feelings of fear, guild, sadness, and fatigue compared to rebel fighters and civilians inside Syria. Islamists, in contrast, report the least feelings of fear, guilt, and fatigue, but also the most anger and hostility of the subsamples. On the positive side (Models 7.f-h), Islamists again stand out as being most self-assured, but they do not report greater feelings of happiness (joviality) compared to others. Hence, judging by the emotional state of our respondents at the time of the interview, refugees appear to be most in despair, but rebel fighters and civilians could not be characterized as especially happy either. Joviality is the closest item we have to the concept of happiness or "pleasure"; and there is little to go around either combat zone or in the refugee camps. Islamists are apparently the most fearless, angry, and self-assured, but it is unclear that they feel genuine pleasure in what they are doing.

Perhaps, though, we should be focusing more on the "agency" component. We consider the extent to which different respondents feel they have control over their lives. We reason that refugees should feel less empowered than rebel combatants and Syrian civilians if staying in a combat zone and fighting gives people a greater sense of control over their lives. To evaluate H8 (*Loss of Agency*), subjects are asked whether they agree with a series of statements. Responses are scaled where 1 = strongly disagree and 4 = strongly agree. In Table 4 below, evidence of agency loss is mixed. On one hand, refugees feel the most trapped in their current location, with no other options (Model 8.a). However, rebel fighters and civilians are more likely to feel that they have no control over their lives (Model 8.b). Subjects are generally more worried than optimistic about their future (Models 8.c-d), with refugees being the most worried, and Islamists the least. Excluding refugees, rebel fighters seem to feel more empowered than civilians in the combat zone. Additional survey questions, reported in a supplementary appendix, inform us that

civilians would be willing to leave Syria provided they had the networks and financial means to do so, and travel were safer. Some are staying because they feel compelled to protect their families, their homes and property, which suggest more obligation than agency. Overall, we find that Wood's (2003) "pleasure in agency" theory seems more applicable to Islamists than to FSA rebels and civilians in the conflict.

Table 4. Emotions and Pleasure in Agency

Emotional Responses to Violence (Basic Negative Affect Components + Fatigue)						
Hypotheses	FSA Fighters	Islamist Fighters	Civilians in Syria	Ex-FSA In Turkey	Refugees In Turkey	N
(7.a) Fear	-0.314*	-0.810***	-0.310***	-0.215*	3.392***	282
	(0.172)	(0.109)	(0.115)	(0.118)	(0.500)	
(7.b) Hostility	-0.0811	0.695***	0.0276	-0.104	3.176***	282
	(0.139)	(0.121)	(0.227)	(0.121)	(0.287)	
(7.c) Sadness	-1.000***	-0.535***	-1.059***	-0.906***	4.209***	284
	(0.0915)	(0.0206)	(0.192)	(0.0258)	(0.245)	
(7.d) Guilt	-0.128***	-1.052***	-0.102	-0.407***	3.218***	284
	(0.0406)	(0.0265)	(0.0756)	(0.0388)	(0.261)	
(7.e) Fatigue	-0.215*	-0.876***	-0.512***	-0.319***	3.474***	283
	(0.111)	(0.0733)	(0.0467)	(0.0636)	(0.241)	
Emotional Responses to Violence (Basic Positive Affect)						
(7.f) Self-Assurance	0.153	0.703***	0.177	-0.0699	2.848***	281
	(0.209)	(0.0380)	(0.141)	(0.0551)	(0.127)	
(7.g) Attentiveness	-0.101	-0.117***	-0.391***	-0.0361	2.129***	280
	(0.0770)	(0.0261)	(0.0373)	(0.0322)	(0.158)	
(7.h) Joviality	-0.0983	-0.219***	-0.210**	-0.0773	2.096***	283
	(0.238)	(0.0674)	(0.0884)	(0.0792)	(0.354)	
Perceptions of Agency (agreement with following statements)						
(8.a) I feel I have no other option but to stay here	-1.120***		-0.644***	-0.465***	3.885***	232
	(0.0110)		(0.0149)	(0.115)	(0.478)	
(8.b) I feel I have no influence over the direction of my life	0.657***	0.0672	0.480***	0.0770	3.476***	281
	(0.126)	(0.139)	(0.127)	(0.157)	(0.338)	
(8.c) I am very optimistic about my future	0.597***	0.459***	0.375**	0.208***	1.748***	282
	(0.189)	(0.0422)	(0.165)	(0.0441)	(0.312)	
(8.d) I am very worried about my future	0.0735	-0.890***	0.103	-0.222**	3.644***	283
	(0.213)	(0.0665)	(0.177)	(0.0960)	(0.578)	

NOTE: models estimated by OLS regression with locational fixed effects, extended controls for gender, age, education, prior employment, robust standard errors in parentheses. Refugees are the constant term.
*** p<0.01, ** p<0.05, * p<0.1

Risk Tolerance

Next we consider risk tolerance and risk avoidance attitudes and behavior (H9-10). In Table 5, we ask subjects to gage their own *risk tolerance* (H9). We ask subjects the extent to which they agree with the statements "I am not afraid to take risks" and "I avoid risks whenever possible". Responses range from 1 = strongly disagree to 4 = strongly agree. In models 9.a-b, people in combat zones claim to be more risk tolerant than refugees in Turkey. This is interesting given that the decision to flee Syria could also carry certain risks given the dangers inherent in travel. We decided to develop behavioral measures of risk taking in the form of two risk games. The first game employs non-linear expected values so that extreme risk taking is not rational given the pay-off options. The second game is a standard risk game with linearly increasing expected values. Behaviorally, there are no significant differences between soldiers, civilians, and refugees in terms of risk in both games, with the exception of ex-FSA fighters who appear most risk averse (Models 9.c-d). Active rebel fighters claim higher risk tolerance, but they do not show it behaviorally[8]. As for *risk and conflict* (H10), we examine whether proximity to violence is associated with risk tolerance. We compare risk behavior among all respondents in Aleppo (extremely dangerous) to Idlib region (less dangerous) to the Turkish refugee camp in Kilis and city of Gaziantep (relatively safe). We observe that people in Aleppo (civilians and combatants) are behaviorally more risk tolerant than similar civilians and combatants in Idlib. While Callen et. al (2014) have found that violence creates certainty premiums (aka risk aversion) in Afghanistan, we find people in conditions of extreme danger tend to think of themselves and behave as risk takers. At present, we have no clear explanation for the contradictory findings.

Table 5. Risk Tolerance

DV	(9.a) I am not afraid to take risks	(9.b) I avoid risks whenever possible	(9.c) Risk Game 1	(9.d) Risk Game 2	(10.a) Risk Game 1	(10.b) Risk Game 2
FSA Fighters	0.577*** (0.133)	-0.301*** (0.0218)	0.609 (0.507)	-0.0350 (0.221)		
Islamist Fighters	0.963*** (0.0785)	-0.629*** (0.0276)				
Civilians	0.0742***	0.318	0.444	-0.250		

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[8] We were unable to run the risk game with Islamist fighters, because we did not want to provide them with pay-offs, and there were concerns that the Islamist fighters might become angry if they perceived the risk game as a form of gambling.

	(1)	(2)	(3)	(4)	(5)	(6)
in Syria	(0.0232)	(0.243)	(0.546)	(0.239)		
Ex-FSA In Turkey	0.170*	0.381***	-0.0419	-0.810***		
	(0.0920)	(0.0388)	(0.121)	(0.0199)		
Aleppo					1.298***	0.940***
					(0.319)	(0.310)
Idlib					-0.212	0.375
					(0.306)	(0.309)
Refugee camp					0.155	0.853***
					(0.326)	(0.299)
Constant	1.579***	2.873***	2.965***	4.047***	3.185***	3.352***
	(0.221)	(0.315)	(0.477)	(0.296)	(0.472)	(0.462)
Constant Group	Refugees in Turkey	Refugees in Turkey	Refugees in Turkey	Refugees in Turkey	Ex-FSA in Turkey	Ex-FSA in Turkey
N	282	283	218	214	218	214

NOTE: models estimated by OLS regression with locational fixed effects, extended controls for gender, age, education, prior employment, robust standard errors in parentheses.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Grievances

Finally, we evalute of grievance by testing individual level grievance motivations based on a range of victimization indicators (H11). In Table 6 below, we present logit models of self-reported victimization. First, we begin with victimization in the form of property destruction. Nearly one-third of our sample report some form of property destruction. In Models 11.a-d, people inside the combat zone (FSA, Islamists, and civilians) are less likely to have suffered property damage and destruction than those who are displaced in Turkey. Rather than joining the fight, people who lose their homes and business are more likely to flee abroad. Next, we examine the possible effects of victimization by loss of individual family members and close friends. Over two-thirds of our sample report that family members and close friends have been injured, killed, or are missing since the war began. There is some evidence that Islamists are more likely to have experienced victimization of family and friends compared to others. Hence, there is some plausible, but weak evidence that people who remain in combat zones experience more victimization, which of course, could be an effect of the decision to remain in a combat zone rather than a cause. With the possible exception of Islamists, individual grievances resulting from victimization does not help us distinguish between FSA rebels, civilians, and refugees, who experience comparable losses of family and friends.

Table 6. Individual Sources of Grievance

	Victimization by Property Destruction					
Hypotheses	FSA Fighters	Islamist Fighters	Civilians in Syria	Ex-FSA In Turkey	Refugees In Turkey	N

(11.a) Home damaged	-2.149*** (0.450)	-0.794* (0.414)	-1.934*** (0.409)	-0.548 (0.412)	0.629 (0.748)	284
(11.b) Home destroyed	-1.401*** (0.425)	-2.241*** (0.549)	-1.026*** (0.380)	-0.0563 (0.404)	0.634 (0.753)	284
(11.c) Home confiscated	-2.325*** (0.660)	0.645 (0.420)	-2.303*** (0.591)	-0.222 (0.437)	-1.404 (0.871)	284
(11.d) Business damaged	-1.324*** (0.467)	0.144 (0.420)	-1.338*** (0.434)	0.349 (0.420)	-2.285*** (0.808)	284
Victimization by Loss of Family and Friends						
(11.e) Family members injured	0.105 (0.382)	0.981** (0.444)	0.249 (0.365)	-0.0514 (0.403)	-0.551 (0.694)	284
(11.f) Family members killed	0.605 (0.385)	1.837*** (0.468)	0.747** (0.369)	1.920*** (0.473)	0.401 (0.726)	284
(11.g) Family missing	0.434 (0.382)	0.386 (0.406)	0.00786 (0.360)	0.955** (0.421)	-0.764 (0.692)	284
(11.h) Friends injured	0.914** (0.400)	2.376*** (0.556)	0.272 (0.366)	Predicts success perfectly	-1.592** (0.806)	284
(11.i) Friends Killed	0.573 (0.390)	1.968*** (0.548)	0.737** (0.375)	1.699*** (0.499)	-0.503 (0.756)	284
(11.j) Friends missing	0.259 (0.393)	1.685*** (0.550)	-0.373 (0.364)	0.331 (0.423)	1.058 (0.728)	284

NOTE: models estimated by Logit regression with locational fixed effects, extended controls for gender, age, education, prior employment, and standard errors in parentheses. Refugees are the constant term.

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

Next, we consider collective grievances. We begin with social grievances based on parochial sectarianism. We hypothesize (H12) that individuals with stronger ties to their religious in-group and greater out-group aversions (H13) are more likely to stay and fight. In Table 7 below, we first consider in-group sectarian ties. As our sample is almost entirely Sunni Muslim, we ask them how close they feel to people of their same religion compared to others in Syria (Model 12.a) on a three point scale (1 = no difference to 3 = much closer), and then Sunni Muslims in Syria (Model 12.b) using a four point scale (1 = not close at all to 4 = very close). Compared to others, Islamists have the strongest attachments to their religious in-group, Sunni Muslims in Syria, but FSA rebels, ex-FSA, and civilians feel no closer to people of their religion (Sunni Muslims) than refugees.

We then consider out-group divisions (H13), focusing on the Alawite minority, who many are seen as supporters of the Assad regime. Using four point scales (1 = not close at all to 4 = very close), we ask subjects how close they feel to Alawites in Syria (13.a) and to Assad supporters (13.b). We find some evidence that Islamist fighters are more strongly sectarian than

others. They feel the least close to both Alawites and Assad supporters. FSA fighters and civilians, in contrast, claim to be as close if not closer to Alawites and Assad supporters than refugees.

As a robustness check on sectarianism, we also employ a behavioral measure of in-group/out-group loyalties and aversions. We utilize a dictator game where we ask subjects to contribute a portion of their potential earnings from participating in this study to alternate recipients of varying identity. We ask subjects to distribute 500 Syrian pounds (about $5) between themselves and a member of the Alawite community (H13a) and then to a supporter of Assad (H13b). Compared to in-group altruism where everyone was extraordinarily pro-social (see Table 3, Hypothesis 6.f), few subjects are willing to give any money to out-groups. Again, FSA rebel combatants are no more or less altruistic toward out-group Alawite or Assad supporters than refugees.

In summary, while there are apparent in-group/out-group divisions between how Sunni Muslims view themselves compared to the Alawite minority in general and to Assad supporters more specifically, these divisions are not sufficient to understand why some people chose to fight against the Assad regime. Sectarianism is stronger among Islamists than FSA rebels, who are not more parochial either in terms of in-group bonding or out-group aversion than non-combatant civilians and refugees. Rebels also appear as willing as civilians to reconcile with Assad supporters once the war is over (see supplementary appendix for additional tables).

Table 7. Social Sectarian and Political Grievances

Social Sectarian Grievances						
Hypotheses	FSA Fighters	Islamist Fighters	Civilians in Syria	Ex-FSA In Turkey	Refugees In Turkey	N
(12.a) Close to people of your religion	-0.532*** (0.158)	0.671*** (0.045)	-0.547** (0.275)	-0.168** (0.078)	2.270*** (0.389)	280
(12.b) Close to Sunni Muslims	-0.002 (0.233)	0.218*** (0.048)	-0.487*** (0.160)	0.0113 (0.088)	3.891*** (0.377)	278
(13.a) Close to Alawites	0.419 (0.292)	-0.304*** (0.040)	0.507*** (0.160)	0.436*** (0.023)	1.215*** (0.072)	278
(13.b) Close to Assad Supporters	0.143*** (0.034)	-0.124*** (0.007)	0.263*** (0.101)	0.0388*** (0.012)	1.039*** (0.165)	275
(13.c) Dictator Game: Sent to Someone in Assad territory	26.58 (28.08)		39.74*** (9.562)	83.72*** (5.972)	28.59 (41.13)	216
(13.d) Dictator Game: Sent to Assad supporter	-0.830 (1.512)		19.50*** (7.488)	12.13*** (2.698)	-1.311 (14.10)	215
Political Grievances						
(H14.a) Fight until victory	1.127*** (0.127)	1.586*** (0.106)	0.157*** (0.020)	0.484*** (0.102)	2.283*** (0.205)	282
(H14.b) Negotiate For peace	-0.925*** (0.249)	-1.624*** (0.146)	0.0633 (0.132)	-0.482*** (0.154)	2.556*** (0.194)	279
(H14.c) Support for	-0.0929**	-0.267***	-0.134**	-0.280***	3.671***	283

Unified Syrian State	(0.045)	(0.008)	(0.056)	(0.025)	(0.122)	
(H14.d) Support for Regional Autonomy	0.300***	-0.533***	0.722***	-0.130	2.500***	284
	(0.031)	(0.104)	(0.158)	(0.102	(0.176)	
(H15.a) No Amnesty For War Crimes	0.182**	0.277***	0.0827	0.280***	2.885***	282
	(0.080)	(0.017)	(0.0831)	(0.021)	(0.064)	

NOTE: models estimated by OLS regression with locational fixed effects, extended controls for gender, age, education, prior employment, and standard errors in parentheses. Refugees are the constant term.

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

Next, we turn to the question of political or regime grievances driving people to fight. If grievances are primarily directed at the Assad regime, we anticipate that rebel fighters will be far more committed to military victory and less willing to negotiate for peace with Assad's forces compared to civilians and refugees. They will also be less willing to sacrifice justice in the interests of peace. First, we examine preferences for military victory over negotiating with Assad loyalists for peace. To examine H14 (*Military Victory*), we ask all respondents whether they agree with a series of statements coded 1 = strongly disagree to 4 = strongly agree. In Model 14.a rebel fighters are much more likely than civilians to agree that Assad should be defeated not matter the costs. Conversely, civilians and refugees are more willing to negotiate for peace (Model 14.b). We also find divergent preferences for ending the war. Rebels are less concerned about maintaining Syrian unity than civilians and especially refugees (14.c). With the exception of Islamists, who are seeking to build a broader Islamic caliphate in the region, FSA rebels and civilians are more willing to accept a solution to the conflict which grants them more regional autonomy. But rebels are unwilling to trade justice for peace. We ask whether they think Assad loyalists should be held accountable for war crimes to examine H15.a (*Political Accountability*). Rebel fighters are far more committed to absolute victory, less willing to negotiate, and more in favor of holding Assad and his forces accountable for crimes committed during the war than civilians or refugees.

Overall, political and regime grievances go a long way to explaining differences between combatants and non-combatants, and may also explain divisions between civilians and combatants both inside and beyond the conflict zone. Rebel fighters zone for sake of regime change, civilians and refugees are less inspired by these goals and do not join. Furthermore civilians and refugees are willing to consider negotiated settlements for peace that may include amnesty and reconciliation with opposition groups, something that rebels are not willing to do. Hence, we find strong evidence that political and regime grievances matter in predicting who participates in civil war and who does not.

Finally, in addition to formal hypotheses testing, we also asked FSA and Islamist rebels directly "why did you join?" We asked civilians in Syria why they are staying, refugees why they left, and ex-fighters why they quit. We also back up our survey results with a great deal of ethnographic research into why people fight, quit, leave, stay. In each case we offered them a range of options, asked them if there were other reasons we hadn't considered, and then asked them to indicate the main reason for why they did what they did. Their responses are provided in a supplementary appendix, which we believe reinforce what our hypotheses tests have indirectly revealed.

Why did you join? Rebels are fighting due to political grievances against Assad's regimes. Islamists also want to tear down the Assad regime, but also desire to build a new

Islamic state in its place. The emphasis on Islamic regime change is only one reason Islamist rebels did not join the FSA. Some rebels join Islamist groups because they perceive them to be better organized, better equipped, and more focused than the FSA.

Why did you quit? Active Free Syrian Army soldiers appear more driven by revenge for crimes committed by the Assad regime, than ex-FSA fighters, who claim they were fighting primarily for aspirational reasons, and quit as they became disillusioned by their failure to win. Ex-fighters also blame poor leadership, training, and teamwork within the FSA as motives for leaving.

Why did you leave? Refugees left because they felt it was too dangerous to stay, their homes and property were destroyed, their friends and family put pressure on them to leave, and in some cases, government and/or rebel forces drove them out.

Why do you stay? Finally, civilians who stay in Syria are staying for myriad reasons. Some are there to assist rebel forces in the fight, but others feel trapped, with no place to go, no money, and feel they must stay to protect their homes and other family members. It is reassuring to us that stated reasons for fighting, quitting, leaving, staying are consistent with what is revealed indirectly in the data by inter-group comparisons.

Discussion and Conclusion

Overall, there is limited or mixed support for many hypotheses drawn from the literature on participation in civil war. We do not see strong effects of social sanctioning pressure and selective incentives to join rebel groups. Refugees tend to be less attached to their home communities than fighters. Regarding social identity and agency-based hypotheses, a case could be made that Islamists are identity seeking, but there are tensions and divisions between rebel forces and civilians, limiting broader group cohesion. Also, though Islamists feel more empowered than other rebel groups, it's not clear the extent to which this translates into meaningful happiness. If anything, the Islamists project anger and hostility. Risk tolerance provides a window into possible selection mechanisms for determining who stays and who leaves the most hostile environments, but it doesn't explain very well who fights and who doesn't among those who stay behind. Turning to grievance hypotheses, we find that individual levels of victimization are also limited, with the exception of Islamists, who seem to have experienced greater loss of family and friends compared to others. Refugees do not respond to the destruction of their houses and property by seeking revenge. They just leave. We observe greater support for social sectarian and political grievance hypotheses. Islamists in particular feel close connection with other Sunni Syrian Muslims and more distant toward minority Alawites and Assad supporters than others. FSA rebels, civilians, and refugees appear more willing to reconcile with Alawites and Assad supporters in general. We also find strong support for the hypothesis that people who join rebel groups and stay in the fight have underlying political motivations for doing so. Refugees and to a lesser extent civilians are much more inclined to negotiate for peace with Assad, while rebel combatants want nothing less than victory and vengeance against Assad's regime. Fighters are also less committed to the political continuity of the Syrian state, and appear willing to support alternatives. Fighters are less willing to trade justice for peace, insisting on holding everyone in the Assad regime accountable for war crimes.

In conclusion, we observe mixed motivations and preferences in different subpopulations of civil war participants (rebel groups, civilians, refugees). People are joining, fighting, leaving, and staying for complex reasons, but rebels appear more politically driven than their civilian

counterparts. This gives us pause now to consider – does it really matter? We think so. First, if goals and preferences between various subgroups within an insurgency are clearly aligned, then at the very least, the insurgency has overcome coordination problems and may have less difficulty offering up selective incentives or using psychological mechanisms to mobilize people for violence. However, when motives, goals and preferences are divided, as is the case in Syria today, serious coordination problems could lead to protracted conflicts due to infighting, inability to either negotiate in unity or secure victory. Our research provides a unique glimpse at possible sorting mechanisms that are taking place between committed fighters and defectors, civilians and refugees, when people are faced with prospects of civil conflict.

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