

# Managing Insurgency

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## Abstract

Why would an insurgent group turn away foreign fighters who volunteered to fight for its cause? To explain variation in foreign fighter usage, I present a novel perspective on what foreign fighters offer to militant groups. Because foreign fighters possess a different set of preferences from local fighters, integrated teams of foreign and local fighters can self-manage and mitigate the agency problems that are ubiquitous to insurgent groups. However, to create self-managing teams, insurgent leadership must oversee the teams' formation. When counterinsurgency pressure prevents this oversight, foreign fighters are less useful and the leadership may exclude them. This theory explains variation in foreign fighter use and agency problems within al Qaeda in Iraq (AQI; 2004 to 2010) and the Haqqani Network (2001–2018). Analysis of the targeting of Abu Musab al-Zarqawi, AQI's former leader, further supports the theory, suggesting that leadership targeting inhibited oversight and aggravated agency problems within the group.

## Keywords

civil wars, political economy, terrorist cells, conflict, counterterrorism, game theory

What is the mistake of many of the Muhajirin fighters in Iraq, especially the one[s] in al-Anbar, who are sitting idle without being used even to make explosives or assigned within the sectors where mines are planted. They are becoming frustrated and incompetent from continually sitting idle and from remembering the repeated promises of glory for which many left their countries.

Analysis of the State of ISI, 2007, translated in CTC (2007a).

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The doors are open for all mujahadeen who fight to apply Allah's will . . . We are ready to receive all foreigners, including Arabs, who want to fight alongside us.

Sirajuddin Haqqani on the Haqqani Network (2009).<sup>1</sup>

Why do some insurgent groups welcome foreign fighters while others turn them away? In 2007, Al Qaeda in Iraq (AQI)<sup>2</sup> was sidelining foreign fighters and eventually began turning them away (CTC 2007a). Surprisingly, AQI's decision came when the group was losing power and influence in Iraq. In June 2006, US-led coalition forces killed Abu Musab al-Zarqawi, AQI's leader. Beginning in March 2007, US and Iraqi security forces moved into Baquba and wiped out AQI's established base of operations. These actions, in conjunction with the Awakening and the 2007 troop surge, presented AQI with its greatest existential threat. And yet, around this time, the group was turning away man power. In contrast, the Haqqani Network, an insurgent group operating in Afghanistan and Pakistan since the 1980s, has consistently welcomed foreign fighters into its ranks (Dressler 2010; Hamid and Farrall 2015).

One reason why insurgent groups may turn away foreign fighters is that foreign fighters are ideologically misaligned with the local population supporting the insurgency (Bakke 2014; Rich and Conduit 2014). If insurgent leadership finds that foreign fighters clash with locals, then the leadership may reject them. However, this explanation would be puzzling in the context of AQI. Seven years after AQI began turning away foreign fighters, AQI reemerged as Daesh (commonly known as the Islamic State or ISIS) and began soliciting foreign fighters again. If AQI rejected foreign fighters in 2007 because they clashed with local actors, it is puzzling why a few years later ISIS, which occupied many of the same territories as AQI, would forget the lessons of the past and encourage the largest recruitment of foreign fighters in history (Barrett 2017).

Instead, I show that AQI's behavior was driven by counterinsurgency pressure that prohibited the effective use of foreign fighters. Foreign fighters can help solve the agency problems that are ubiquitous to insurgent groups, but only if they are deployed strategically; otherwise, they pose agency problems of their own.<sup>3</sup> Specifically, teams of agents in insurgent groups misbehave when those teams are composed of like-minded agents who are tempted to misbehave in the same manner. For example, previous work on agency problems within insurgent groups describes teams of local agents who steal from or pursue power through violence against civilians or allied insurgent groups, which hurts the insurgent group's ability to overthrow the government (Kalyvas 2006; Weinstein 2006; Shapiro 2013; Abrahms and Potter 2015). While local actors may be seeking wealth or power, Islamist foreign fighters are ideologues fighting to protect a transnational Islamist identity (Felter and Fishman 2007; Malet 2010; Hegghammer 2010, 2013; Hafez 2010). If a cell is constructed of only foreign fighters, then the agents may be less willing to conduct violence against rival Islamist groups to ensure that their group emerges as the victor. Put another way, a homogeneous team of agents will

not self-manage because like-minded agents stand to benefit from supporting their teammates' misbehaviors.

In contrast, teams that combine foreign and domestic agents may self-manage and mitigate their agency problems because their preferences for misbehavior do not align. In mixed teams, the agents' preferences can offset one another, with the result that a heterogeneous team adheres to the actions desired by the principal rather than misbehaving. Self-managing teams are a particularly useful technique to handle agency problems in insurgencies. For geographically expansive and decentralized groups like the Haqqani Network, whose cells operated in Afghanistan while the leadership was in Pakistan, self-managing teams are a simple and largely hands-off way to resolve agency problems. I describe the necessary conditions for teams of foreign and domestic fighters to self-manage, I formalize this intuition in a simple model,<sup>4</sup> and I provide theory showing that differences in AQI's and the Haqqani Network's operational environment drove variation both foreign fighter use and intraorganizational dysfunction.

The key here is that teams of heterogeneous agents are more likely to follow the preferences of the principal than are homogeneous teams. Such heterogeneous teams are unlikely to form on their own, however; they need the insurgent group's leadership to step in at the beginning to create the heterogeneous teams. When the leadership enjoys a safe haven from which to operate, as the Haqqani Network has had in northwestern Pakistan, it can do this. However, while self-managing teams are fairly uninvolved for insurgent leadership, sometimes insurgent leadership cannot oversee the initial team formation due to counterinsurgency pressure. When leadership lacks the operational space to ensure agents organize how the leadership wants them to organize, agents will assemble homogeneous teams with other like-minded agents and will act out or will engage in counterproductive infighting. In situations where the leadership knows agency problems or infighting will occur, the leadership may broadly exclude the type of agent whose preferences least match their own. As I discuss below, the preferences of AQI's leadership were less aligned with foreign fighters than with local fighters, meaning that as the group lost the operational space to organize, foreign fighters would be targeted for exclusion.

After defining actors' preferences and the conditions necessary for self-managing teams to form, I test two hypotheses that connect counterinsurgency pressure to insurgent organizational characteristics. First, counterinsurgency pressure can lead groups to forgo using foreign fighters if the pressure prevents a group's leadership from ensuring that foreign fighters will be integrated into existing operational units. I find support for this hypothesis through a case study examining variation in the Haqqani Network's and AQI's availability of safe havens and use of foreign fighters. The Haqqani Network has consistently held a safe haven in Eastern Afghanistan or North Waziristan, Pakistan, and the group has consistently welcomed foreign fighters. When AQI faced intense external pressure and lost its operational bases, the group began turning foreign fighters away. Later, when AQI became ISIS and began holding territory in Iraq and Syria, the group could oversee team formation once

more. It began soliciting foreign fighters and formed heterogeneous battalions that combined foreign fighters with local fighters (Weiss 2015; Al-Tamimi 2015b). For both Haqqani and ISIS, forming heterogeneous teams was a simple way to manage their agency problems.

Second, counterinsurgency pressure can exacerbate agency problems in the targeted group. I find support for this hypothesis through the case study of AQI and the Haqqani Network as well as through an analysis of the counterinsurgent pressure that targeted AQI's leadership. Utilizing the Multi-National Force-Iraq (MNF-I) significant activity (SIGACT III) and the Iraq Body Count data sets, I conduct an event study of the June 2006 targeting of Zarqawi, an event that pushed AQI to decentralize but whose timing is exogenous to persistent shifts in AQI's preferences for attacking local Iraqis. I find the Zarqawi targeting caused an 8.9 percentage point increase in AQI's proportion of subversive killings of local Iraqis.<sup>5</sup> Using the magnitude of this estimated increase, a back-of-the-envelope estimation finds that the Zarqawi targeting led to, as a conservative lower-bound, an additional seventy-nine non-AQI Iraqis killed over three months in events that would qualify as agency problems.

This article provides several novel insights about how insurgent groups organize and operate. It is the first to show that foreign fighters can help resolve agency problems in insurgent groups. The existing literature suggests that foreign fighters are valued because they add manpower, new skills, or resources to an insurgent group (Malet 2010), or that they are detrimental because they are ideologues who clash with less ideologically driven local actors (Kilcullen 2009; Bakke 2014; Rich and Conduit 2014). This article is consistent with these views, but it suggests that the misaligned preferences between foreign and local fighters can actually be exploited for the benefit of insurgent leadership. Additionally, I explain when and how insurgent groups succeed or fail in managing their personnel. Many insurgent groups collapse due to infighting and organizational dysfunction (Kenny 2010; Bakke, Cunningham, and Seymour 2012; Fjelde and Nilsson 2012; Cunningham, Bakke, and Seymour 2012). I show how policies such as targeting insurgent leadership and denying them safe havens can aggravate their agency problems, and this in turn can make the group less effective and even lead to collapse.

## **Related Literature**

The finding presented here, that foreign fighters can help resolve agency problems in insurgent groups, has implications for the organizational economics of militant organizations. Since Crenshaw (1987) and Chai (1993) pioneered an organizational approach to terror groups, a growing literature discusses how terror and insurgent groups mitigate their agency problems (Gates 2002; Weinstein 2006; Shapiro and Siegel 2007; Baccara and Bar-Isaac 2008; Enders and Jindapon 2010; Shapiro 2013). This scholarship suggests that insurgent leadership either selects agents that will not act out or aligns incentives through contracts. While these results are important, they are derived from models or theory that rarely consider agent-agent

interactions,<sup>6</sup> focusing instead on a single type of misbehaving agent. My paper adds a new dimension by identifying how agent–agent interactions between diverse agents matter for the management of agency problems. This contribution mirrors the real-world situation faced by groups such as AQI, which relied on thousands of agents, including both foreign and local fighters, to conduct operations together.

Theoretically, this discussion of self-managing teams advances an important and overlooked aspect of insurgent organization.<sup>7</sup> The existing literature argues that insurgent groups face a security–efficiency trade-off, where groups with the most top-down management are the ones that are most susceptible to counterinsurgency (Shapiro and Siegel 2007; Baccara and Bar-Isaac 2008; Enders and Jindapon 2010; Shapiro 2013). However, this conclusion relies on strong assumptions surrounding principal–agent interactions. For example, Shapiro and Siegel (2007) acknowledge that record keeping is dangerous but still assumes the principal can observe the day-to-day workings of agents, can make precise transfers to agents, can fire agents without negative ramifications, and knows the likelihood of operational success. While these assumptions may be appropriate in select cases, they are too strong to describe the day-to-day management of geographically dispersed groups whose leadership does not regularly interact with its agents. I show that the security–efficiency trade-off does exist, but I add additional nuance. If a group can construct self-managing teams that require only that the principal have some general sense of the agents’ utility functions and that the principal can organize teams of agents, then the group may not need to sacrifice security for efficiency.

This article also contributes to an ongoing debate on the value of targeting an insurgent group’s leadership (Jordan 2009; Johnston 2012). Within-state studies of leadership targeting in Pakistan and Mexico show leadership decapitation is correlated with attacks against the local population (Abrahms and Potter 2015; Calderón et al. 2015; Abrahms and Mierau 2017). These studies suggest that leadership decapitation erodes a group’s command structure and aggravates infighting and agency problems. I provide a theoretical foundation and additional empirical evidence of this mechanism. More broadly, this article speaks to the value of population-centric tactics in counterinsurgency (Nagl 2012; Wilder 2009). In Iraq, military operations that targeted and isolated leadership led to a dysfunctional organization that alienated itself from the civilian population. I suggest that tactics like leadership targeting may indirectly win hearts and minds.

## **Managing Insurgency: The Agency Problem**

### *Subversion*

Agents “subvert” when they perform an action that the leader does not like.<sup>8</sup> Agents subvert when they have the means, motives, and opportunities to do so. Agents possess the means to subvert when they have the freedom of choice over a set of actions. Agents possess the opportunity to subvert when the leadership is not sure

what the agents should be doing in a given situation. And, agents possess the motive to subvert when, without intervention, agents will act in a manner that a fully informed leader would perceive as suboptimal. These three conditions were present within AQI from 2004 to 2010 and the Haqqani Network from 2001 through 2018 (continuing at the time of writing), as I demonstrate in the following sections.

### *Conditions for Subversion within AQI*

*The means and opportunity for subversion: Decentralization.* AQI embraced a multi-divisional form (M-form) hierarchy, where leadership was separated from semi-autonomous sector units by up to three levels of hierarchy (CTC 2007a; Bahney et al. 2010). This type of decentralized command structure gives agents the means to subvert because operational planning and execution are delegated to agents with limited oversight by the leadership. Insurgent groups often embrace these decentralized structures because they grant agents the ability to conduct operations without needing basic communication between the leadership and agents that can imperil the group.

The opportunity for subversion existed because AQI leadership did not have detailed knowledge about regional conditions, and thus, it was uncertain about the best course of action with respect to insurgent–civilian and insurgent–insurgent relations. To achieve its goal of overthrowing the Iraqi government and fighting coalition forces, AQI sought to cooperate with other insurgent and civilian groups. However, AQI also experienced rivalries and attacks from groups that were, ostensibly, allied with AQI (CTC 2005, 2007b). AQI’s relationships were further complicated when some actors began cooperating with coalition forces during the Awakening. Because the leadership was purposely organizationally distant from the local power dynamics, AQI’s agents knew more than the leadership about when insurgent–insurgent or insurgent–civilian violence was appropriate.<sup>9</sup>

*Motives for subversion: Divergent preferences.* AQI can be thought of as comprising three distinct groups: the leadership, foreign agents, and domestic agents. While the preferences of the groups overlapped, they also differed in important ways which would lead to agency problems in decentralized group.

AQI’s leadership had three clear goals: expel coalition forces, overthrow the Iraqi government, and emerge as the top insurgent group in Iraq. As part of a multiparty insurgency, AQI’s leadership recognized that to be successful, it had to balance attacking Western security forces with asserting dominance over civilian and rival insurgent groups (Whiteside 2016). However, because these preferences would be dictated by local conditions, AQI’s leadership would not necessarily know what its agents should be doing. If, for example, rival insurgent groups were attacking AQI’s agents, AQI’s leadership would want its agents to respond and engage these local actors, but the leadership would not necessarily know whether AQI’s agents were

being attacked and responding or whether AQI's agents were simply pursuing local power at the expense of insurgent–insurgent relations.

Domestic fighters shared the same three goals with AQI's leadership. However, they tended to care more about gaining a local monopoly on power in the short-term than did the leadership. AQI's domestic members possessed a preexisting social network and connection to the local population. When AQI moved into an area, the group started enforcing Sharia law and managing smuggling and racketeering (Moghadam and Fishman 2010; Shapiro 2013). Through these operations, domestic members of AQI could settle old grievances, protect themselves and their social network, and pursue wealth<sup>10</sup> to an extent that ideologically driven outsiders (foreign fighters) both could and would not. However, other insurgent groups and powerful civilian groups, even if these groups were AQI's allies, constrained members of AQI from pursuing these goals. To achieve a monopoly on power over a locality, AQI's local members might attack AQI's allies, which jeopardized AQI's ability to expel coalition forces and overthrow the Iraqi government. Internal records support this view, with AQI's most sweeping internal audit questioning the dedication of local members to AQI's goals (CTC 2007a). Together, these sources suggest that local fighters in AQI preferred to engage local actors instead of coalition forces, sometimes at the expense of the group itself.

Islamist foreign fighters, meanwhile, are ideologues who travel to conflict zones like Iraq in 2003 or Afghanistan in 2001 because they believe it is their religious duty to protect the Muslim nation (the *umma*) when it faces external threats such as the one posed by US coalition forces (Malet 2010; Hegghammer 2010, 2013). For that reason, foreign fighters in AQI prefer to engage coalition forces or the Iraqis supporting the coalition-backed Iraqi government than engage coreligious Sunni militants or civilians (Hafez 2010). Secondary documents on foreign fighter ideology and recruitment patterns (Felter and Fishman 2007; Hafez 2010; Kirdar 2011), messages to would-be and existing Iraqi foreign fighters (al-Zarqawi 2004), and internal documents discussing the motivations and religious devotion of foreign fighters (CTC 2007a) all support this view. Of course, this is not to say that no foreign fighters in AQI in 2003 to 2010 were willing to declare other Sunni Muslims as apostates and to attack or kill these individuals. Rather, foreign fighters preferred to engage Western forces or (commonly Shia) Iraqis supporting the government more than they wished to engage coreligionists.

Thus, AQI's leadership possessed preferences that were sometimes more in line with the preferences of foreign fighters, sometimes more in line with those of local fighters, and would depend on what was occurring locally. Overall, however, AQI's leadership preferences were closer to those of domestic fighters because both shared a desire to consolidate their power in Iraq after Western forces were expelled. In contrast, AQI's foreign fighters are generally viewed as less interested in securing AQI's success and one day governing Iraq and more interested in engaging Western forces (Hegghammer 2010; McChrystal 2013). If Western forces were vanquished in Iraq, foreign fighters would move on to the next battle zone. Furthermore, foreign fighters,

relative to domestic fighters, are younger and less experienced, are commonly viewed as more ideologically rigid, and are more interested in supporting the insurgent movement rather than the local politicking necessary to win an insurgency.

### *Means, Motive, and Opportunity for Subversion in the Haqqani Network*

The agents in the Haqqani Network also possessed the means, motives, and opportunities for subversion. The Haqqanis implemented a decentralized structure, using quasi-autonomous fighting columns that operated in Afghanistan and Pakistan (Brown and Rassler 2013, 188-91). Similar to AQI, this structure isolated the leadership from day-to-day insurgent activity and provided agents the means and opportunity to subvert. Additionally, in 2001, the Haqqani leadership further isolated itself from operations in Afghanistan by moving their headquarters to North Waziristan in Pakistan (Dressler 2010).

The preferences of the leadership, the domestic agents, and the foreign agents within Haqqani mirrors those within AQI. The Haqqanis too had three main goals: expel Western forces, overthrow the Afghan government, and emerge as the dominant militant group in the Loya Paktia region. To accomplish these goals, the Haqqanis utilized a wide range of actors as agents (Dressler 2010; Hamid and Farrall 2015). Locals from the Loya Paktiya region disproportionately benefited from a local monopoly on power due to their ties to the population. The Haqqani's foreign fighters, on the other hand, were drawn from a pool recruits that overlapped with AQI's pool and who were influenced by similar ideological messaging, making them more ideologically driven and less interested in local political struggles.<sup>11</sup> Thus, both domestic fighters and foreign fighters within the Haqqani Network possessed the means and opportunity to subvert because of the group's decentralized organizational structure, and they possessed the motive to subvert because their preferences did not completely align with those of the leadership.

### **Managing Insurgency: The Foreign Fighter Solution**

Insurgent groups rely on teams of agents to conduct operations. In this setting, agency problems can arise. Specifically, if the team of agents are all the same type (all domestic or all foreign), then they possess similar preferences to one another and they will at times behave in ways the leadership deems suboptimal. Because domestic agents benefit if their teammates pursue a local monopoly on power, a team of domestic agents will collectively pursue local power, even if this weakens the insurgent group by disrupting intra-insurgency alliances. Because foreign fighters prefer engaging Western forces, a team of foreign agents will seek out and engage Western forces, even if there is limited strategic reason for doing so. Put another way, with a homogeneous team of agents, no one agent wants to discourage his or her teammates from acting out because like-minded agents benefit from and support their teammates' misbehaviors.

In contrast, a heterogeneous team of agents generates a different dynamic because its members possess internally misaligned preferences over the actions that they want to pursue. Under conditions that I outline below, these competing preferences can offset one another, and agents will self-regulate and manage their own agency problems. Put another way, with a heterogeneous team of agents, the agents' preferences for subversion pull in different directions; as a solution, agents may agree to collectively forgo misbehavior and instead do what is optimal for the insurgent group.

Importantly, agents will not organically form self-managing, heterogeneous teams if given the choice. When heterogeneous teams self-manage and do what is best for the insurgent group, the agents are not undertaking the actions that they most want to undertake. Therefore, if given the choice, agents prefer to work with like-minded teammates. This is where organizational oversight is needed. Insurgent leadership has good reason to recruit foreign fighters if it has the ability to organize mixed teams of foreign and domestic agents. But if leadership is unable to create integrated teams, then ideologically extreme foreign fighters are less valuable to the organization than are local fighters, and the leadership may decide to stop using foreign fighters altogether.

Before formalizing this mechanism, I raise two points. First, what insurgent groups are doing with foreign fighters is somewhat counterintuitive. Bringing in agents whose preferences are *less aligned* with the leadership to manage agency problems stands in contrast to typical findings in principal-agent settings that support “ally principal” type results (see Bendor, Glazer, and Hammond 2001). However, studies in legislative signaling settings have found that adding new types of agents can lead to efficiency gains for the principal (Dewatripont and Tirole 1999; Battaglini 2002; Hirsch and Shotts 2015), results that are substantively similar to mine.

Second, self-managing teams are powerful tools for mitigating agency problems in insurgent groups because they require little of the principal. Here, the principal shifts the burden of oversight to the agents' immediate peers without requiring monitoring or complex contracts.<sup>12</sup> For decentralized insurgent groups that are geographically disperse and risk capture, exposure, or death every time leadership interacts with its agents, self-managing teams are easier to implement than the standard contracting technologies that require the principal to observe the agents' actions.<sup>13</sup> While self-managing teams are not costless to implement—they still require that the principal organize a heterogeneous team and make sure that one type of agent is not suppressing the other—self-managing teams are an effective and minimally intrusive technique for mitigating agency problems in challenging contracting environments.

### *Conditions for Self-managing Teams*

When four conditions hold, a team of domestic and foreign agents will self-regulate.

**Condition 1:** Agents must value their own actions, the actions of the others on their team, and overall success of the group.

In addition to valuing their own actions, Condition 1 says that agents value the actions of those around them. Whether they desire local power (in the case of domestic fighters) or the destruction of Western forces and Western backed forces (in the case of foreign fighters), agents benefit when their teammates pursue their preferred activities. Additionally, agents must value the overall success of the insurgent group. They may do so for two reasons. One, the group provides logistic and operational support to the agents, who make use of these resources to pursue their goals. And two, many domestic and foreign agents selected into joining the militant group they did, suggesting they may have some preference alignment with the group. Also, this alignment is something that groups can manipulate through propaganda and messaging that emphasizes the value of the organization over the value of the agent's own preferences (as ISIS was documented as doing; Al-Tamimi 2015a, 2015b). While it is critical that agents benefit from the success of the organization, I do not assume that agents benefit to the extent that they will stop subverting altogether.

Condition 1 holds for most agents in insurgent groups. Condition 1 fails to describe individuals undertaking lone-wolf attacks (because they lack an organization) or groups on the brink of a schism. For example, members who would join the Continuity Irish Republican Army or the Real Irish Republican Army, which splintered from the Provisional Irish Republican Army (PIRA) in the late 1980s or 1990s, likely did not value the "success" of the PIRA. The condition might also fail in situations of such extreme belief or paranoia that group members engage in violence against one another. This happened in the seventh century to the Kharijites, who adopted such an extreme form of jihad that they engaged in rampant intragroup killings (Lahoud 2010). While there are parallels between the Kharijites and ISIS (as evidenced by ISIS splitting with Al Qaeda), neither AQI, ISIS, nor the Haqqani Network faced the same level of within group violence, thereby suggesting that members valued the terrorist organization. Outside of these examples, it is difficult to identify cases where agents disregard the activities of their teammates or where agents do not care about the success of the organization they joined.

**Condition 2:** Given the leadership's preferences, foreign and domestic agents must possess different and offsetting preferences.

For foreign agents' and domestic agents' preferences to offset, the leadership must prefer a mix of actions that falls between the agents' ideal points. As one way to formalize this, agents' preferences could be modeled as points on the unit interval. Domestic agents, who prefer attacking local actors in pursuit of regional hegemony, have an ideal point at 0. Foreign agents, who prefer attacking Western forces or government forces that threaten Islamists, have an ideal point at 1.

Domestic and foreign agents would have offsetting preferences when the leadership's preferred action is represented by a random variable taking values between 0 and 1, with expectation close to 0.5. In other words, foreign and local agents have different and offsetting preferences when at times the leadership would prefer its agents to attack government forces and, at other times, the leadership would prefer its agents to attack local actors.

Condition 2 held for AQI and the Haqqani Network. Because both groups faced threats from local actors, government forces, and Western forces, the leadership sometimes wanted its agents to fight local rivals and at other times engage government or Western forces. Naturally, Condition 2 does not always hold, notably when the leadership's preferences are not aligned with one type of actor. For example, Condition 2 did not hold for the Somali al-Ittihad al-Islami (AIAI) leadership, its Somali agents, and foreign al Qaeda members in Somalia. In that relationship, AIAI's leadership never fully embraced al Qaeda's goals of targeting Western forces and eventually abandoned terrorism to preach and conduct non-violent social action (Stenersen 2011).

**Condition 3:** The leadership can organize heterogeneous teams of agents and can prevent one type of agent from suppressing the other.

Condition 3 prevents two types of misbehaviors. First, because similar types of agents want to conduct similar types of actions, domestic agents do not want to work with foreign agents (and vice versa) and, if given the opportunity, will not do so. The first part of Condition 3 says that the leadership has the capacity to make agents form mixed teams. Second, once a heterogeneous team is formed, one type of agent may attempt to sideline, coerce, or suppress the other. As examples, in 2007, low-level domestic members in AQI prevented foreign members from conducting operations, and, in 2015, domestic agents of al Shabaab killed its foreign fighters (Scahill 2015). If the leadership valued the foreign fighters,<sup>14</sup> these actions would be detrimental to the organization. While in some cases the leadership may determine that some agent-agent infighting is acceptable or not worth the cost to prevent, in other cases the leadership may step in. The second part of Condition 3 states that the leadership has the capacity to prevent suppression and infighting. One way the leadership could accomplish this is by periodically investigating its agents, determining whether one group is suppressing the other, and punishing the agents that are misbehaving. Essentially, Condition 3 rules out the possibility that agents can overrule the leadership and make organizational changes.

Condition 3 holds for insurgent groups whose leadership possesses some capacity to form heterogeneous teams and occasionally monitor teams to prevent the most obvious internal dysfunctions. Having a safe haven from which to operate facilitates these principal-agent interactions because it gives the principal the security, the time, and the space needed to organize mixed teams and then follow up with periodic in-person debriefings with team members. Identifying

misbehavior at these debriefings should be straightforward: if one type of agent were being suppressed, they would have the incentive to report it to the leadership.<sup>15</sup> Similarly, if a militant group faces limited outside pressure on leadership, the group's operational space can function like a safe haven. Many militant groups or drug trafficking organizations either operate in areas with limited state capacity or have arrangements with local government or police forces, which can grant the leadership unrestricted access to its agents.

As a disclaimer, Condition 3 may be stronger than it needs to be. Plausibly, external factors may prevent one subgroup from dominating the other. If agents spend time with infighting or suppressing one type of agent, then agents are spending less time fighting counterinsurgents or rival insurgent groups. In active combat environments, infighting like this could lead to the destruction of the team, making it something that agents would want to avoid.

**Condition 4:** Agents will select into Pareto efficient Nash equilibria.

It is useful to consider Condition 4 in the context of Condition 3. Condition 3 implies that the principal can ensure domestic and foreign agents will interact within the organization without one subgroup sidelining or suppressing the other. Of course, Condition 3 does not rule out the possibility of subversion, as the principal could group foreign and domestic agents onto a team and these agents could ignore one another and quietly subvert all the time. Condition 4 addresses what types of equilibria agents will select into. When agents repeatedly interact within an organization multiple equilibria can be possible, but some equilibria may be more efficient than others. Condition 4 states that agents will select into the efficient equilibria. To understand why this matters, consider the outcome in which foreign and domestic agents on a team subvert all the time, which hurts their teammates and the organization, which is an undesirable equilibrium from all actors' point of view. Alternatively, foreign and domestic agents on a team could compromise, sometimes taking the actions that their type of agent prefers, sometimes taking the actions that the outgroup prefers, but always taking the actions that strengthen the organization (thereby self-managing). In both scenarios, the agents are not happy with all the activities that the team undertakes, but in the latter, the agents are strengthening the organization, which, by Condition 1, is good for them. Thus self-managing can be a Pareto improvement.<sup>16</sup>

Condition 4 would likely hold for many militant groups, but especially ones where the leadership can have some interactions with agents. Left to their own devices, it is reasonable to assume that agents could coordinate into an equilibrium where all agents are better off. To draw a parallel to how human subjects behave in laboratory settings, when participants play iterated prisoner's dilemma games, they often play cooperative strategies as opposed to always defecting (Andreoni and Miller 1993; Cooper et al. 1996).<sup>17</sup> While laboratory settings are highly stylized, they do suggest that individuals seek out ways to make themselves better off in ways

similar to what Condition 4 defines. Also, as Bueno de Mesquita (2005) describes, insurgent groups often screen their members before allowing them to join; identifying agents who are willing to be “team players” and who are not willing to hurt themselves to hurt others in the organization seems like a plausible dimension to select agents on. Also, because the principal prefers that agents select into the more efficient equilibria, the principal would be incentivized to facilitate this. A competent leader could plausibly nudge agents who are choosing between the two equilibria to select the equilibrium that is better for the agents and better for the organization.<sup>18</sup>

Importantly, Condition 4 is not implying that agents like cooperating—based on the preferences outlined earlier, all agents would prefer being on a homogeneous team where they can subvert and their like-minded teammates can also subvert. Rather, all Condition 4 implies is that agents will not coalesce on behavior that voluntarily punishes themselves while punishing their teammates.

### *Mechanisms for Self-managing Teams*

When Conditions 1 to 4 hold, teams of foreign and local fighters will self-regulate through two possible mechanisms. First, a heterogeneous team could self-regulate through a strategic delegation of tasks. In this mechanism, the team assigns tasks that the leadership wants done to the agents who would like to do those tasks. For example, when Western forces put increased pressure on a team, the team could task its foreign fighters with fighting back.<sup>19</sup> Teams are incentivized to delegate because all domestic (foreign) agents benefit from the foreign (domestic) agents not subverting by Condition 1. Condition 2 suggests that strategic delegation is (at least sometimes) possible,<sup>20</sup> and Conditions 3 and 4 imply that agents will not disrupt the organization and will select into the more efficient self-managing.

Second, a heterogeneous team may commit fewer acts of subversion by collectively coordinating on the principal’s preferred action. For a heterogeneous team (allowed by Condition 3) that has the preferences outlined in Conditions 1 and 2, there are two equilibria types. The first equilibrium is a “subversive” equilibrium, where agents disregard what is best for the group, ignore their teammates, and pursue the actions that they want. In the subversive equilibrium, agents benefit from their own actions (always good), lose from the actions of the outgroup (always bad), and lose because the organization is getting weaker due to all the subversion (always bad). The second equilibrium is a “self-managing” equilibrium, where agents cooperate for the betterment of the organization, which also benefits the agents. In the self-managing equilibrium, agents sometimes benefit from their own actions (sometimes-good-sometimes-bad), agents sometimes benefit from the actions of their teammates (sometimes-good-sometimes-bad), and agents benefit because the organization benefits (always good). By self-managing, agents spend less time undermining the organization and taking actions that hurt the out-group, making

self-managing a Pareto improvement over always subverting. Thus, in a mixed cell, agents will self-manage to make themselves better off (Condition 4).

I include a simple model formalizing how the second mechanism functions. For a more detailed formal model, see Schram (201).

I model insurgent activity as an infinite-horizon game in which a two-agent team conducts operations. Let  $t \in \{1, 2, 3, \dots\}$  denote periods. In each period, nature selects the state of the world  $\omega_t \in \{0, 1\}$ , then each agent observes  $\omega_t$  and selects action  $x_t \in \{0, 1\}$ . The state of the world identifies the action that the leadership wants the agents to undertake. When  $\omega_t = 0$  ( $\omega_t = 1$ ), the leadership prefers that agents select  $x_t = 0$  ( $x_t = 1$ ). Let  $x_t = 0$  denote when agents pursue local power (the domestic fighter's most preferred action), and let  $x_t = 1$  denote when agents engage Western forces (the foreign fighter's most preferred action). Because the leadership's preferences are closer to the preferences of domestic fighters, nature selects  $\omega_t = 0$  with probability 0.6. Consistent with Condition 1, I assume agents receive two utils when they undertake their most preferred action, two utils when their teammates undertake their most preferred action, and one util when they undertake the action that the leadership wants them to undertake.

Below I depict the normal forms of the per-period game for a team of domestic agents, A1 and A2. Each normal-form game references the stage game under different states of the world.

*Homogeneous Team,  $\omega_t = 0$*

A1 \ A2	$x_t = 0$	$x_t = 1$
$x_t = 0$	5,1	3,2
$x_t = 1$	2,3	0,0

*Homogeneous Team,  $\omega_t = 1$*

A1 \ A2	$x_t = 0$	$x_t = 1$
$x_t = 0$	4,4	2,3
$x_t = 1$	3,2	1,1

In both states of the world, it is a Nash equilibrium for a homogeneous team of domestic agents to select their most preferred action,  $x_t = 0$ , for all  $t \in \{0, 1, 2, \dots\}$ . While sometimes these agents are acting in the interests of the leadership (when  $\omega_t = 0$ ), at other times these agents are subverting (when  $\omega_t = 1$ ).

When a diverse team is formed, a new dynamic can arise. Below is the normal form of the stage game for a team where A1 is a domestic fighter and A3 is a foreign fighter.

*Heterogeneous Team,  $\omega_t = 0$*

A1 \ A3	$x_t = 0$	$x_t = 1$
$x_t = 0$	5,1	3,2
$x_t = 1$	2,3	0,4

*Heterogeneous Team,  $\omega_t = 1$*

A1 \ A3	$x_t = 0$	$x_t = 1$
$x_t = 0$	4,0	2,3
$x_t = 1$	3,2	1,5

Under both states of the world, it is a Nash equilibrium for agents to select their most preferred action (A1 set  $x_t = 0$  and A3 set  $x_t = 1$ ) for all  $t$ . In this equilibrium, agents select the actions they most prefer to the detriment of their partner and the group. When Condition 4 holds and for a sufficiently high discount rate ( $\delta \geq 0.8\bar{3}$ ), an alternate equilibrium exists in which agents select the leadership's most preferred actions ( $\omega_t = x_t$  for all  $t$ ).<sup>21</sup> If agents are sufficiently patient and Condition 4 holds, then a diverse cell undertakes the activities that the leadership wants them to undertake. This simple model demonstrates that if agents' preferences for misbehavior are pulling in different directions, they may find it best to coordinate and perform the actions that the leadership would want them to perform *without the need for constant oversight by the principal*.

To summarize, heterogeneous teams will self-manage when Conditions 1 to 4 hold. What's more, self-managing teams are an effective technique for managing a decentralized organization that faces some counterinsurgency threat because, as the second mechanism demonstrates, self-managing teams allow the principal to be largely hands-off as the management burden has shifted to the agent's immediate peers. This means the principal can solve many of its agency problems without resorting to complex monitoring or contracts. However, self-managing teams will not form organically because, as the model demonstrates, agents are worse off on heterogeneous teams than on homogeneous teams.<sup>22</sup> Thus, for the leadership to use self-managing teams, the leadership must intervene and require that integrated teams are formed (Condition 3).

Sometimes counterinsurgency pressure can inhibit interactions between leadership and agents and may discourage or prevent the leadership from forming integrated teams. If Conditions 1, 2, and 4 hold but the insurgent group leadership lacks the operational space it needs to oversee team formation, then there are several observable implications. First, agents will form homogeneous teams due to their homophily or will attempt to suppress the out-group and will, at times, subvert. Second, because leadership knows the agents will subvert, the leadership may exclusively staff the organization with the type of agent that is better behaved, thereby excluding one type of agent. In AQI, foreign fighters were less ideologically aligned with leadership, making them the target for exclusion if counterinsurgency pressure was too severe. Third, when a group reverts to using homogeneous teams, this will increase agency problems. For groups excluding foreign fighters, more agency problems imply more attacks against nonstate actors in the pursuit of a local monopoly on power and fewer attacks against foreign and state actors. These are summarized in Hypotheses 1 and 2.

**Hypothesis 1:** If Conditions 1 to 4 hold, then the leadership can bring in foreign fighters to create integrated teams of foreign and domestic agents. If Conditions 1, 2, and 4 hold but a group lacks the operational space to organize teams (Condition 3 fails), then the agents will form homogeneous teams and leadership may exclude the least-aligned types of agents.

For AQI, Hypothesis 1 suggests that if all conditions but Condition 3 held, the leadership may exclude foreign fighters who possessed preferences that were less in line with the leadership's preferences.

**Hypothesis 2:** If Conditions 1 to 4 hold, then the leadership can manage its agency problems. If Conditions 1, 2, and 4 hold but a group lacks the operational space to organize teams (Condition 3 fails), then a group will suffer from more agency problems.

For AQI, Hypothesis 2 suggests that if all conditions but Condition 3 held, the group would commit more unproductive attacks on local actors.

I test these hypotheses by analyzing how the availability of safe havens and leadership targeting varied with foreign fighter use and subversion in AQI and the Haqqani Network.

## **Cross Case Analysis: AQI and the Haqqani Network**

### *Variation in Security Environments*

One way to test the hypotheses is to consider variation in counterinsurgency pressure that inhibits organizational oversight. To operationalize this, I exploit variation in the availability of safe havens to AQI and the Haqqani Network.

By late 2006, a variety of factors put pressure on AQI. In early 2006, coalition forces aggressively targeted AQI's operational bases, forcing the group to move its headquarters from the Anbar Province to Baquba. Further coalition operations resulted in the death of AQI's founder and leader, Zarqawi, in June. After Zarqawi was killed, coalition forces continued to target AQI's leadership, and dozens of upper-level and cell-level leaders were captured or killed each month (Bergner 2007; McChrystal 2013). At the same time, the Awakening led to AQI losing Iraqi Sunni support while coalition forces gained allies and informers. Coalition forces followed AQI to Baquba, which came under siege in March 2007. As a result of this intense counterinsurgent pressure, from late 2006 onward, AQI lacked a safe haven where leadership could freely interact with lower-level agents.

The Haqqani Network too was forced to move its headquarters after the US invasion of Afghanistan in 2001, relocating from Eastern Afghanistan to North Waziristan, Pakistan (Dressler 2010). However, to the best of my knowledge, US ground forces rarely ever entered Pakistan,<sup>23</sup> affording the Haqqanis a safe haven from which to conduct its operations. While the Haqqani Network leadership could not directly oversee operations in Afghanistan, the move insulated the group's leadership while granting it the ability to oversee team formation before sending them into the field.

### *Variation in Foreign Fighter Usage and Subversion*

Applying Hypothesis 1 to the cases of AQI and the Haqqani Network suggests that the Haqqani Network would recruit and integrate foreign fighters while AQI would fail to do so. The empirical record suggests this is exactly what happened. The Haqqani Network's safe havens have allowed the group to successfully employ foreign fighters for decades. During the group's jihad against the Soviet Union in 1980 to 1988, the Haqqani Network embedded small teams of foreign fighters alongside their regular forces (Hamid and Farrall 2015, 65-167). More recently, during the insurgency against the US-backed Afghan government, the Haqqani Network either integrated foreign fighters into their fighting columns or allowed foreign fighters to operate semi-independently. Importantly, even when foreign fighters were part of a separate fighting column, groups of local and foreign fighters interacted with each other and shared commanders (Brown and Rassler 2013, 189-90).

In contrast, intense counterinsurgency pressure on AQI resulted in the group rejecting foreign fighters. From August 2006 to August 2007, hundreds of foreign nationals entered Iraq to fight with AQI, but in late 2007, AQI's leadership began turning them away (CTC 2007a). In AQI's internal audit, this decision is partially attributed to mid-level leaderships' failure to integrate foreign fighters into operations, as the quotation starting this article suggests (CTC 2007a).

It is worth examining whether alternative explanations can explain AQI's decision to reject foreign fighters in 2007. One, it's possible that tensions between local and foreign fighters may have been counterproductive to the group, or that foreign fighters may have been too incompetent to operate in battle. However, if this was the case, it is unclear why foreign fighters were ever brought into AQI (pre-2007), the Haqqani Network, or ISIS. Two, AQI may have rejected foreign fighters to rebrand itself as an Iraqi entity fighting for the Iraqi people. This explanation fails to explain why, if AQI found foreign actors were detrimental to the organization's goals, the group later undertook the largest recruitment of foreign fighters in history (Fishman 2016). Three, AQI may have turned away foreign fighters because the quality or usefulness of foreign fighters changed over time. There are several mechanisms for why this would occur, but one possible explanation is that as AQI faced counter-insurgent pressure in early 2007, it was less able to distribute propaganda. However, this explanation has limited support. In "The Analysis of the ISI" (CTC 2007a), when providing explanations for why foreign fighters were excluded, changes in the quality or innate usefulness of foreign fighters were not mentioned. Additionally, while AQI may have been squeezed and unable to continue putting out propaganda, the messaging that was being broadcast to would-be foreign fighters revolved around protecting Muslims in Iraq from Western forces (al Zarqawi 2004; al Zawahiri 2013). To that end, the influx of more Westerners to Iraq in the 2007 coalition troop surge may have made the propaganda that did exist more compelling, thereby increasing the supply of would-be foreign fighters (who were then turned away by

AQI). Admittedly, because I lack data on the quality of foreign fighters or AQI propaganda over time, I cannot fully rule this alternate explanation out.

Applying Hypothesis 2 to the two cases suggests that AQI should have experienced more subversion than the Haqqani Network because AQI lacked operational space to organize due to counterinsurgency pressure. A series of correspondences between AQI and Ansar al-Sunnah, another Sunni insurgent group fighting against coalition forces in the Iraq insurgency, support Hypothesis 2. The correspondences show that at the same time that AQI's leadership was reaching out to form an alliance with Ansar al-Sunnah, low-level members of AQI were killing members of Ansar al-Sunnah (CTC 2007e, 2007f). Additionally, AQI's own members were surprisingly open about the group's struggle to manage lower-level agents (Fishman 2009), and AQI's internal audit identified many intragroup issues, including improper use of financial resources and failure to control lower-level soldiers (CTC 2007a). External sources also suggest that acts of subversion were ubiquitous to AQI at this time. Actors in the Awakening Movement that turned on AQI describe how AQI's violence against Iraqi civilians alienated AQI from the local Sunni population (Montgomery and McWilliams 2009). Additionally, members of AQI commandeered the smuggling channels run by local Sunnis, further estranging the group from its base of local support (Fishman 2009). As a result of the counterinsurgent pressure that AQI faced and the fact that it was deploying homogeneous teams of local agents, AQI was plagued with agency problems in 2007, and these problems ultimately led to the deterioration of AQI's relationships with local actors. As a result, local Sunni actors joined the "Sons of Iraq" movements and began the "Awakening." Had AQI been able to manage its agents better and maintain local support, it's possible the group would not have incurred the losses it did from 2007 to 2010.

In contrast, there is little evidence of subversion within the Haqqani Network at any point from 2001 to 2018. In fact my study of primary and secondary documents found only two minor incidents, both described in (Brown and Rassler 2013), while other sources describe how the Haqqani Network maintained a remarkable degree of control over its agents (Lilleby 2013). One incident occurred when a foreign fighter reneged on being a suicide bomber and the other occurred when a foreign fighter wasted ammunition. The lack of evidence of subversion is suggestive, but this may simply be the result of the group keeping its internal dynamics hidden from the outside world. However, if agency problems were occurring within the Haqqani Network, they would likely become visible. The Haqqanis operate in a precarious political space by collaborating with al Qaeda, the Pakistani Taliban, civilians in the Loya Paktiya region, and Pakistan's Inter-Services Intelligence (Dressler 2010; Brown and Rassler 2013). By working with and alongside groups in conflict with each other (the Pakistani Taliban and Pakistan's Inter-Services Intelligence are at war), subversion could have undermined the Haqqani's alliance network. Therefore, if subversion was as common within the Haqqani Network as it was within AQI, there would likely be observable implications.

Also, anecdotally, the Haqqani Network used ideological differences between foreign and local fighters to mitigate agency problems. During the Afghan Civil War, the Haqqani Network integrated foreign fighters led by Abu Harith, an Arab, into its operations to provide aid and distribute supplies, as the Haqqani leadership viewed these foreign actors as less corruptible (Hamid and Farall 2015, 129-67). Additionally, the Haqqani Network strategically delegated military tasks to Abu Harith's group. For example, in 1984, after the Haqqanis captured a military base at Torghar Mountain, they gave the base to an Afghan militant group to hold. However, the Afghans sold the base to government forces. In 1990, when the Haqqanis recaptured the base, the Haqqanis gave the base to Abu Harith to protect, reportedly because the Haqqanis knew Abu Harith would not be corrupted. These anecdotes in combination with the theoretical implications of having integrated foreign-local fighting columns, suggest the Haqqani Network better utilized foreign fighters to achieve greater organizational efficiency.

### *Extending the Case Study: The Islamic State and Self-managing Teams*

Beginning in 2011, fueled by the domestic political failures in Iraq and the outbreak of the Syrian Civil War, AQI became resurgent in Iraq and spread into Syria. The dysfunction in both states allowed the group to seize territory and grow, and, by 2014, the group declared itself the "Islamic State." While there are differences between ISIS and AQI that will be discussed below, ISIS's behavior was consistent with Hypotheses 1 and 2. Upon securing the operational space to do so, the group brought in thousands of foreign fighters, organized integrated battalions of domestic and foreign fighters, and integrated foreign fighters into all levels of the ISIS bureaucracy (Weiss 2015; Zelin 2018). And, once the integrated organization was created, ISIS was remarkably successful and appeared both well managed and disciplined (Gates and Podder 2015).

Admittedly, the preferences of ISIS's foreign and domestic agents may have shifted from those each type held in AQI, which could be viewed as undermining the theoretical mechanism presented earlier. However, agent preferences continued to pull in opposite directions, thus the underlying mechanism that leads to successful self-managing teams remained. As in AQI, the ISIS leadership had three goals: expel Western forces, overthrow the government (in Iraq and Syria), and consolidate its political power over potential domestic rivals. In the previous case studies, domestic fighters were particularly motivated by obtaining a monopoly on local power. However, years of US occupation and sectarian violence plausibly could have turned many domestic fighters into religious hardliners more concerned with the global jihad movement than with greed or grievance. In addition, as ISIS killed the most pro-government of the Sunni Awakening leaders,<sup>24</sup> the remaining pool of local Sunnis may have been more interested in fighting the government than local fighters in AQI had been. ISIS's foreign fighters, meanwhile, were a large and diverse group, the result of the largest recruitment of foreign fighters in history (roughly 50,000

foreign fighters; Barrett 2017). As in AQI, many foreign fighters still traveled to Iraq to protect Sunni Muslims in Syria and Iraq (Zelin 2013; Stern and Berger 2015; Dawson and Amarnath 2017). However, many foreign fighters were also motivated by escapism, the promise of a utopian society, money, or a pardon for past criminal behavior from their home country (M. Winter 2013; Stern and Berger 2015; Lemon 2015; C. Winter 2015). Thus, many foreign fighters in ISIS may have been less motivated to engage Western and government forces and more interested than their counterparts in AQI.

Thus, in ISIS, it is not clearly the case that all foreign fighters had offsetting preferences with all domestic fighters. Nor is it the case that one group of fighters had preferences that were more aligned with the leadership's. However, this more complex arrangement of preferences does not destroy the mechanism at work. If, within an organizational unit, fighters have preferences for action that effectively pull in different directions, then the preferences can still be offsetting and diverse teams will still self-manage. Interviews in Weiss (2015) describe how ISIS initially created homogeneous, single-ethnicity battalions of foreign fighters but found the battalions were more loyal to their leader than to the organization. In response, the organization called upon foreign, Syrian, and Iraqi fighters to integrate into battalions "through laying aside [their] prior identity for the muhajir and making him [the fighter] a resident in the Islamic State" (Al-Tamimi 2015a, 2015b). In other words, ISIS used the dual strategy of creating diverse teams while emphasizing the importance of fighting for the good of ISIS.<sup>25</sup>

## **Within AQI Evidence: Counterinsurgency and Subversion**

### *Introduction*

I conduct an additional test of Hypothesis 2 using an event study on the killing of Zarqawi, AQI's founder and leader. Did Zarqawi's death encourage decentralization within AQI, which in turn led to more subversion, as predicted by Hypothesis 2? For this event study to be a reliable test of the hypothesis, Zarqawi's death must be exogenous to the agency problems experienced by AQI. The circumstances leading to the airstrike on June 7, 2006, that took Zarqawi's life are detailed in retired General Stanley McChrystal's memoirs, beginning with the April 9, 2006, capture of twelve AQI operatives in Yusufiyah, Iraq, and ending with the missile strike that killed Zarqawi. This account suggests that the timing of Zarqawi's death was largely due to several months of interactions with a specific AQI prisoner and small mistakes made by Zarqawi and thus was plausibly exogenous to the group's agency problems (McChrystal 2013, 206-32).

Before describing the event analysis, two disclaimers should be addressed. First, testing Hypothesis 2 relies on being able to measure changes in agency problems within AQI. Unfortunately, in the available large-*N* data from the Iraq War, it is not possible to systematically characterize if a given AQI attack was a manifestation of

agency problems. However, I am able to measure broad changes in the types of attacks that were conducted. Because AQI excluded foreign fighters from operations when they experienced outside pressure, agency problems in AQI took the form of violence against local actors. *Ceteris paribus*, large shifts in violence away from attacking coalition forces and toward attacking local actors are consistent with an increase in agency problems. These shifts can be measured in the available data.<sup>26</sup>

Second, no publicly available data exist that would allow for a within-group test of Hypothesis 1 for AQI. This may be perceived as problematic, as Hypothesis 2 could apply to groups that are not using self-managing teams to resolve subversion and are instead conducting audits or implementing incentive contracts. However, it is not clear how AQI could have overcome the significant technical and logistic hurdles needed to make these techniques function. Additionally, patterns of AQI's foreign fighter use are consistent with the use of integrated, self-managing teams. Finally, even if I am incorrect regarding the mechanism that AQI's leadership used to control subversion, the tests below identify an important relationship between leadership targeting and agency problems.

### *Zarqawi Targeting Data*

I use the MNF-I SIGACT III Database, provided by the Empirical Studies of Conflict Project (ESOC).<sup>27</sup> The data set is generated from 193,264 SIGACT reports from coalition forces in Iraq. I filter the data to remove criminal activity, coalition attacks against civilians, and coalition attacks against militant groups. The remaining data, denoted "coalition attacks," include direct fire, indirect fire, suicide, improvised explosive device (IED), and attempted IED attacks against coalition forces. For the event study, I limit the data to coalition attacks occurring from February 1, 2006, to August 31, 2006, for governorates where AQI enjoyed influence.<sup>28</sup> Table 1 summarizes the data for these governorate months.

I also use civilian violence data from Iraq Body Count, a nonprofit organization dedicated to detailing civilian casualties using sources including media, hospital, and morgue reports, also provided by ESOC.<sup>29</sup> Following Condra and Shapiro (2012), I separate incidents into categories. "Coalition civcas" are coalition or Iraqi government killings of civilians that occurred during the course of engagements with insurgents. "Insurgent civcas" are insurgent killings of civilians that occur during the course of engagements with coalition or Iraqi government forces. "Local killings" are killings of Iraqis by militant organizations that did not occur during insurgent-coalition clashes. Local killings are sectarian and intimidation killings. "Unknown killings" are killings of Iraqis that are unidentified. As for the coalition attacks data, I aggregate these data to the governorate-month level and limit my data to governorates where AQI enjoyed influence. These data are summarized in Table 1. As discussed below, I use the number of local killings over the sum of local killings and coalition attacks for each governorate month, or the "local kill proportion," as my dependent variable.

**Table 1.** Violence in al Qaeda in Iraq (AQI) Governorates per Governorate-Month, February 2006 to August 2006.

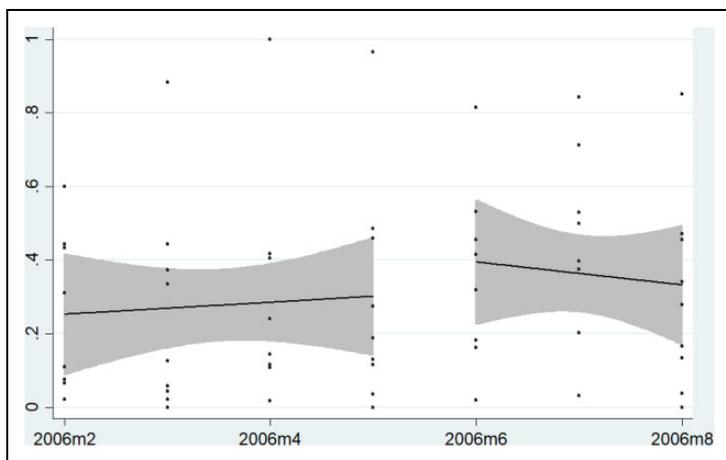
Variable	Mean	Standard Deviation	N
Coalition attacks	387.857	458.927	63
Local killings	180.921	377.985	63
Coalition civcas	4.921	6.973	63
Insurgent civcas	19.857	24.416	63
Unknown killings	7.111	12.24	63
CERP	18.961	19.626	63
Local kill proportion	0.315	0.265	60

Note: Data on where AQI exhibited influence are provided by MNF-Iraq documentation Hamilton (2008) and include Anbar, Babylon, Baghdad, Diyala, Erbil, Ninewa, Salah ad Din, Tameem, and Wassit.

For my purposes, the Iraq Body Count data have two potential problems. First is the nontrivial number of unknown incidents which were likely sectarian or intimidation killings (Condra and Shapiro 2012). To address this, in the Online Appendix, I reestimate the primary empirical model by modifying the local killing variable to be a combination of identified local killings and unknown killings. This does not substantively change the results of the estimation presented in the text. Second, were it not for governorate-month level morgue reports for Baghdad, I would be able to use a finer-grain unit of analysis. However, the theory suggests that the month level is not unreasonable. Because I am measuring changes in AQI's patterns of violence stemming from organizational changes following the Zarqawi targeting, a month-to-month analysis seems appropriate. Organizational changes do not happen overnight, making the aggregated measure preferable to a shorter window or a daily measure. Furthermore, in the in the Online Appendix, I reestimate the primary empirical model at the district-month level after dropping districts within the Baghdad governorate. This also does not substantively change the results of the estimation presented in the text.

Finally, I use data from the US Army Corps of Engineers Gulf Region Division's Iraq Reconstruction Management System, provided by ESOC, to control for variation in governorate-level spending. Following Berman, Shapiro, and Felter (2011), I identify projects created by the Commander's Emergency Response Program (CERP) and related smaller programs. I then calculate their average daily expenditure and aggregate all spending to the governorate-month level. Projects issued through CERP and similar programs were better suited to help coalition and Iraqi security forces combat insurgencies than top-down projects, making these variables important controls. A one-unit increase in the variable "CERP" identifies an additional US\$10,000 spent on CERP or similar programs in a governorate month.

As a preview of the empirical strategy and results, Figure 1 displays the changes in the local kill proportion for AQI-occupied governorates from February 2006



**Figure 1.** Changes in the local kill proportion within al Qaeda in Iraq governorates from February 2006 to August 2006, before and after the Zarqawi targeting. The dots represent the governorate-month local kill proportions. The lines are fitted regression lines with predictions means from a linear regression of the local kill proportion on the month number for the months before the Zarqawi targeting and for the months including and after the Zarqawi targeting (estimated separately). The gray regions are the 95 percent confidence intervals for the estimated local kill proportion means.

through August 2006, the period surrounding Zarqawi's death, with a discontinuity for the month when Zarqawi was killed (June 2006). I include the raw governorate-month local kill proportions (plotted as dots) and fitted regression lines (with 95 percent confidence intervals of the predicted means) for the months before the Zarqawi targeting and for the months including and after the Zarqawi targeting. This figure suggests that the Zarqawi targeting shifted AQI's profile of violence toward more violence against local actors. Because subversion in AQI took the form of local killings at the expense of operations against coalition forces, this figure suggests that the increase in local kill proportion is representative of an increase in agency problems within AQI.

### *Zarqawi Targeting Empirical Strategy*

The full estimation model is

$$\frac{(\widehat{\text{Local killings}})_{i,t}}{(\widehat{\text{Coalition attacks}})_{i,t} + (\widehat{\text{Local killings}})_{i,t}} = \text{Zarqawi}_t \beta_1 + X_{i,t} \beta_2 + \text{FE}_i + \phi_{i,t}. \quad (1)$$

$(\widehat{\text{Local killings}})_{i,t}$  and  $(\widehat{\text{Coalition attacks}})_{i,t}$  are the observed local killings and coalition attacks in governorate  $i$  and month  $t$ .  $\text{Zarqawi}_t$  is an indicator variable for

the months including and following the killing of Zarqawi (June to August).  $X_{i,t}$  are control variables and include first differences in the per-month levels of insurgent and coalition civilian casualties and CERP spending for months  $t$  and  $t - 1$ . Because Condra and Shapiro (2012) and Berman, Shapiro, and Felter (2011) demonstrate that civilian casualties and CERP spending can affect levels of violence, I include these to control for any possible changes in coalition force tactics or the application of CERP funds following the Zarqawi targeting.  $FE_i$  are governorate fixed effects that capture any time invariant controls.  $\phi_{i,t}$  is an error term.

For  $\beta_1$  to capture the causal effect of Zarqawi's death on the rate of subversion in AQI, I make three assumptions.<sup>30</sup> I outline the technical details of these assumptions in the Online Appendix and describe them informally here.

First, I assume that the Zarqawi targeting did not change the underlying "appropriate" proportion of violence against local actors that AQI's leadership would want committed. To accommodate this assumption, I restrict the analysis to a seven-month time frame including and around the Zarqawi targeting but would likely not experience a major shift in AQI's preferences. This time frame excludes the months before the Samarra Mosque bombing in February 2006. This attack started the sectarian civil war between Sunni and Shia populations in Iraq and likely would have changed the types of activities that AQI would want committed. Similarly, months following the outbreak of the Anbar Awakening in August 2006 are excluded.

Second, I assume that the observed local kill proportion acts as a noisy measure of AQI's local kill proportion. Because AQI was a major actor in the Iraqi insurgency, it follows that AQI's activity would play a significant role in determining the violence that occurred, subject to some idiosyncratic noise.

Third, I assume that fighters in AQI experienced a one-to-one trade-off between conducting a local killing and conducting a coalition attack. This implies that an act of subversion (a local killing) is conducted at the expense of an attack on coalition forces. This assumption may be too generous. Because attacking coalition forces is likely riskier and harder than attacking civilians, it might be expected that one less attack against coalition forces would lead to more than one attack against local actors. If this is the case, then the estimation below understates the true value of subversion that occurred.

### **Zarqawi Targeting Results**

Table 2 presents estimates of the effect of the Zarqawi targeting on the proportion of local violence. The first column gives estimation results with only the Zarqawi dummy. The second column introduces governorate fixed effects. The third column introduces first-differenced insurgent and coalition civilian casualties and CERP (and similar) spending for periods  $t$  and  $t - 1$ . In columns 1 to 3, I use ordinary least squares (OLS) with cluster-robust standard errors at the governorate level. To address concerns with using OLS for a limited dependent variable, I reestimate the

**Table 2.** Zarqawi Targeting and Changes in the Local Kill Proportion (February to August 2006).

	(1) OLS	(2) OLS	(3) OLS	(4) F.Logit	(5) ME F.Logit	(6) Boot
Zarqawi Tar	0.0846** (.0256)	0.0884** (.0266)	0.0891** (.0287)	0.581*** (.168)	0.113*** (.0326)	0.0891*** (.0271)
Constant	0.278** (.0937)	0.276*** (.0115)	0.276*** (.0126)	1.520*** (.0545)		0.276*** (.0891)
Governorate FE	No	Yes	Yes	Yes	Yes	Yes
Controls	No	No	Yes	Yes	Yes	Yes
R <sup>2</sup>	.0255	.199	.208			.208
N	60	60	60	60	60	60

Note: Columns 1–4 report robust standard errors clustered by governorate in parentheses. Column 5 reports marginal effects from the fractional logit regression calculated at the means of the covariates. Column 6 reports bootstrapped standard errors (10,000 bootstraps). The dependent variable is the local kill proportion. Control variables are the present and lagged first differences in the level of Commander's Emergency Response Program spending and insurgent and coalition civilian casualties. All covariates are at the governorate-month level. I limit sample to dates February 1, 2006, to August 31, 2006, and to governorates where al Qaeda in Iraq operated.

\* $p < .1$ .

\*\* $p < .05$ .

\*\*\* $p < .01$ .

model using a fractional logit specification in column 4 (following Papke and Wooldridge 1996). I report mean marginal effects (ME) from the fractional logit in column 5. I reestimate the model with bootstrapped standard errors in column 6.

Under all specifications, the killing of Zarqawi precipitated a statistically significant increase (at the 5 percent level) in the local kill proportion. These results are consistent with Hypothesis 2, that eliminating Zarqawi, which stressed the organizational capacity of AQI's leadership, resulted in AQI agents conducting more subversive acts. Under the assumptions summarized above and detailed in the Online Appendix, the results from the full model in column 3 suggest that AQI experienced an average monthly increase of 0.0891 in the proportion of subversive acts conducted by members of its organization following the Zarqawi targeting. Using a procedure I describe in the Online Appendix, I estimate that this translates to at least seventy-nine local killings that would qualify as subversion in the three months after Zarqawi's death. While this should be viewed as a back-of-the-envelope calculation, it is helpful for understanding the extent to which Zarqawi's death caused agency problems within AQI.

Two comments should be made on this number. First, this figure assumes that AQI members faced a one-to-one trade-off between attacks on coalition forces and attacks on civilians. If it was more difficult for AQI to attack coalition forces than to attack civilians, the seventy-nine local killings is an underestimation. Second, as part of calculating this figure, I assumed that members of AQI carried out attacks at the

same rate as other insurgent groups. If AQI members were in fact two or three times more productive as non-AQI insurgents, then the estimate in Table 2 suggests the Zarqawi targeting led to at least 151 or 217 more subversive killings, respectively. Given that coalition forces identified AQI as the primary militant opposition to peacebuilding in Iraq and given that AQI was a notoriously hardline and violent group, assuming its members were only equally productive as other militant groups is likely an underestimation, which then makes the seventy-nine additional local killings also likely an underestimation.

### *Zarqawi Targeting Discussion and Robustness Checks*

Several alternate explanations might be consistent with the empirical results above. However, some of these explanations are less plausible than others. First, one might hypothesize that after the killing of Abu Zarqawi, AQI's new leadership preferred to shift its attacks away from coalition forces and toward local Iraqis. This would imply the "appropriate" ratio of violence shifted after Zarqawi's death. While no internal documentation exists that describes the exact preferences of AQI's leadership at this time, it seems unlikely that after coalition forces killed AQI's founder and leader, AQI's new leadership suddenly viewed coalition forces as a reduced threat and shifted away from attacking them.

Second, it is possible that the death of Zarqawi led to infighting within AQI or to attacks from challenger insurgent groups on AQI, implying that the increase in local casualties are members of AQI who were killed. If this were the case, I would expect that participants in the Awakening would discuss their decision to challenge AQI after Zarqawi was removed. However, there is no mention of such a strategy in on-the-record interviews with participants in the Awakening (Montgomery and McWilliams 2009).

Third, AQI may have responded to the death of Zarqawi with targeted killings of civilians or of AQI members who were suspected of passing information to coalition forces. However, these effects would likely be localized to the Diyala governorate, where Zarqawi was killed. I reestimate the model without Diyala in the Online Appendix, and I find substantively similar results.

Fourth, it is possible that AQI agents felt empowered to subvert after Zarqawi's death either because his death eroded other techniques for managing agency problems (e.g., incentive contracts) or because AQI agents felt less committed to the long-run success of the group after its charismatic leader was gone. To the best of my knowledge, there is no evidence that would disprove either of these possibilities. Both explanations assume that agency problems within AQI took the form of local violence, and that with Zarqawi at its helm, AQI handled subversion better than AQI without Zarqawi, through whatever channel. However, several comments should be made. While these explanations are consistent with the empirical results, they do not explain AQI's decision to exclude foreign fighters, nor do they address the difficulty insurgencies have in implementing other mechanisms to handle agency problems.

Also, if either point is correct, then the empirical findings still advance the important result that leadership targeting can create agency problems within insurgent groups.

Finally, in the Online Appendix, I run a wide range of robustness checks. I include the following: to rule out outliers, I re-estimate the model dropping individual governorates; I consider shorter and longer sampling frames by shifting the sampling window; I run a “placebo test” that examines hypothetical treatments outside the sampling frame, showing the Zarqawi treatment was atypical; I demonstrate the shift in the local killing proportion is not dependent on the governorate-month specification by examining the per-governorate shift in the local killing proportion following the Zarqawi targeting; and I reestimate the model attributing unknown incidents to sectarian killings. Across all alternate specifications, the results do not substantively change: the Zarqawi targeting precipitates an increase in the proportion of local violence.

## Conclusion

To date, tens of thousands of foreign fighters have traveled across North Africa, the Middle East, and Central Asia to participate in dozens of insurgencies (Hegghammer 2010). How and when do insurgent groups effectively use foreign fighters? I provide a theoretical framework to answer these questions. Foreign fighters are useful because they are ideologues. When leadership can integrate foreign and local fighters into operational units, the presence of ideologically driven foreign fighters can make local agents less willing to subvert. However, when insurgent leadership cannot ensure that local and foreign agents will work together on heterogeneous teams, the leadership may marginalize or exclude the ideologically driven foreign fighters, who are less useful to the practical necessities of running an insurgency.

This theory suggests that variation in an insurgent group’s ability to organize its teams of agents can drive variation in foreign fighter use and agent subversion. I find support for this theory in a cross-case analysis of the Haqqani Network (2001 through 2018) and AQI (2004–2010). For the Haqqani Network, a safe haven in North Waziristan allowed the leadership to successfully organize its foreign and domestic fighters, mitigating agency problems. In contrast, counterinsurgency pressure that started in 2006 caused AQI to lose its safe haven, which led to subversion and the group turning away foreign fighters. An analysis of coalition efforts to target AQI’s leadership further supports the theory by connecting counterinsurgency tactics that cause decentralization (leadership targeting) and agency problems.

The results of this article suggest several important avenues for future research. The first is to continue analyzing the organizational dynamics of insurgent groups, which are amalgamations not just of heterogeneous agents but also of preexisting political and militant entities. Second, more work should be done to connect counterinsurgency to organizational outcomes in insurgent groups. I have attempted to do this by identifying a novel way in which insurgent groups handle agency problems and by discussing how denying rebel groups safe havens and leadership targeting

can lead to dysfunction. However, there are many organizational decisions that insurgent groups must make outside of agency problems, including size, recruitment strategies, ideology, and preferred types of attack. Do counterinsurgent strategies affect these dimensions as well? Finally, this article is one of several that finds microlevel evidence that leadership targeting precipitates increased violence against civilians (Abrahms and Potter 2015; Calderón et al. 2015; Abrahms and Mierau 2017). In Iraq, this resulted in civilians turning on the groups that committed violence against them, suggesting that kinetic counterinsurgency activities may be able to indirectly win hearts and minds. On the other hand, after targeting cartel leadership, the Mexican government faced backlash as the cartels turned more violent (Miroff and Booth 2012). To understand the full policy impact of leadership targeting, more work should be done to understand what explains the different outcomes in Iraq versus Mexico.

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### **Supplemental Material**

Supplemental material for this article is available online.

### **Notes**

1. Translated in Brown and Ressler (2013, 186).
2. I refer to the insurgent group founded by Abu Musab al-Zarqawi that operated in Iraq between 2004 and 2010 as “al Qaeda in Iraq” or “AQI.”
3. For prior work on agency problems in insurgent groups, see Weinstein (2006), Kalyvas (2006), Berman and Laitin (2008), and Shapiro (2013).
4. For a more detailed model of this phenomena, see Schram (201).

5. This figure is statistically significant at the 5 percent level and relies on assumptions outlined below.
6. Baccara and Bar-Isaac (2008) and Enders and Jindapon (2010) are two exceptions.
7. Baccara and Bar-Isaac (2008) is the only other paper I know of that discusses self-managing teams.
8. In delegation settings, agency problems are categorized as “shirking” or “subverting.” Agents shirk when they select an effort level that is below the principal’s optimal level. Subverting differs from shirking because when an agent subverts, similar agents can receive positive externalities from the misbehavior. When agents shirk, other agents incur disutility (as modeled in Baccara and Bar-Isaac [2008] and Enders and Jindapon [2010]).
9. AQI’s own internal documents present this viewpoint, as illustrated in CTC (2007c) and CTC (2007d).
10. Kalyvas (2006, 364-88) discusses how these factors drive local conflict behavior that is outside the “master cleavage.”
11. While the Haqqani Network drew more heavily from Central Asian countries, as the quote introducing this article identifies, the Haqqanis also specifically targeted Arabs.
12. For examples of principals using complex contracts to solve the agency problem, see Gates (2002) and Shapiro and Siegel (2012).
13. See Ross (1973) and Banks (1989) for the canonical examples of incentive contracts and auditing. A more complete discussion is included in Schram (201).
14. It is difficult to determine whether Al-Shabaab’s leadership valued foreign fighters but was too weak to control its agents or if the leadership’s preferences had shifted.
15. Note that assuming the leadership can periodically check in on agents is a less stringent assumption than assuming the principal can investigate the circumstances surrounding an agent’s operations. For this reason, this assumption is not ruling out the possibility of agency problems altogether.
16. Condition 4 has a similar intuition as equilibrium selection in the infinite horizon prisoner’s dilemma. Under certain parameter values, in the repeated prisoner’s dilemma, “always cooperate” and “always defect” are both feasible equilibria. Condition 4 implies that, of the multitude of feasible equilibria, agents will not select into the “always defect” equilibrium (because it is Pareto dominated by the “always cooperate” equilibrium) and instead will select into some efficient cooperative equilibrium like “always cooperate.”
17. Similarly, the Axelrod tournaments suggest that the strategies that have cooperation are the most successful (Axelrod and Hamilton 1981).
18. Referencing what is to come, the fact that we see militant groups who have been able to self-manage when the leadership possesses preferences for self-managing (e.g., Islamic State and the Haqqani Network) suggests that there are reasons to believe that the leadership is able to influence equilibrium selection as theorized.
19. A similar mechanism is modeled in Lazear (1999).
20. Strategic delegation of tasks may not always be possible—for example, when group leadership wants all members of a team to focus on eliminating a rival insurgent group. When the leadership wants agents to coordinate on the same tasks, the second mechanism is a better representation of how self-managing teams function.

21. Each player's supergame strategies are as follows: in period  $t = 0$ , agents set  $x_t = \omega_t$ . For each  $t \in 1, 2, \dots$ , if both players set  $x_{t-1} = \omega_{t-1}$ , then set  $x_t = \omega_t$ . For each  $t \in 1, 2, \dots$ , if the other player sets  $x_{t-1} \neq \omega_{t-1}$  and if the agent's identity is A1 (A3), then set  $x_s = 0$  ( $x_s = 1$ ) for all  $s \in \{t, t + 1, t + 2, \dots\}$ .
22. Expected per-period payoffs for domestic agents on a homogeneous team are 4.6, while expected per-period payoffs for domestic agents on a heterogeneous team that cooperates are 3.4.
23. The 2011 raid that killed Osama bin Laden is a notable exception.
24. See Whiteside (2014, 2016) for a discussion of this violence.
25. In the model above, this would increase the disutility the agent receives from selecting the action that is not the state of the world.
26. This empirical strategy is also used in Abrahms and Potter (2015) and Abrahms and Mierau (2017).
27. The data have been previously used in Condra and Shapiro (2012) and others.
28. Data on where AQI exhibited influence is provided by MNF-Iraq documentation Hamilton (2008).
29. The data were first used in Condra and Shapiro (2012). See <http://www.iraqbodycount.org/>.
30. This section does not report the results from the estimation model using the composite parts as dependent variables. Because 2006 experienced an increase in Local Killings and Coalition Attacks consistent with the expansion of the insurgency, were Local Killings the dependent variable, the time trend in violence would introduce bias and cause the model to overestimate the impact of the Zarqawi targeting.

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