

# The Nature and Origins of Sectarian Animosity\*

Fotini Christia<sup>†</sup>

Elizabeth Dekeyser<sup>‡</sup>

Dean Knox<sup>§</sup>

September 4, 2019

## Abstract

What drives the sectarian antipathy underlying so much conflict across the Middle East? We offer the first systematic, large-scale evaluation of prominent hypotheses about the nature, origins, and content of individual-level sectarian animosity. Our results show this phenomena is best conceived in terms of the national politicization of sect identities, rather than religious conflict or transnational sectarian movements. This analysis is based on a broad, geographically representative survey of over 4,000 devout Shi'a from Iraq and Iran, integrated with numerous additional data sources. Our findings suggest tempting parallels in the way that sectarian animosity and ethnonationalism operate. Yet these parallels can only go so far; the uniquely religious aspects of sectarianism introduce new complexity. While religious adherence can strongly inflame doctrinal schisms in some contexts, it moderates tensions in others. We argue that enormous gendered variation stems from *religious socialization*, or belief transmission within a religious context to individuals who would otherwise be excluded from the social sphere—a mechanism that undoubtedly influences not only sectarianism but broader beliefs.

---

\*For support in the field we are truly grateful to Abdullah Hammadi, Kufa University President Dr. Aqeel Abd Yassin Al-Kufi and Kufa University Professor Hassan Nadhem. Great thanks also go to our survey supervisors Faris Kamil Hasan, Maytham Hasan Machi, Wael Adnan Kadhim, Faris Najem Harram and Nidhal J. Ghdadab and to our incredible enumerator team. For advice on surveying in Iraq, we would like to thank Professor Amaney Jamal and Michael Robbins who generously shared their experience from the ArabBarometer; Nandini Krishnan, for sharing the instruments and data from the World Bank household economic survey for Iraq; and Neha Sahgal for discussing her experience with the work of the Pew Research Center in Iraq. Special thanks to Professor Roy Mottahedeh, Dr. Sabrina Mervin and Geraldine Chatelard for early input on the project and to Marsin Alshamary and Ramisa Shaikh for their research assistance. Fotini Christia carried out the data collection associated with this project while on an Andrew Carnegie fellowship. She also acknowledges support from ARO MURI award No. W911NF-121-0509. Dean Knox acknowledges financial support from the National Science Foundation (Graduate Research Fellowship under Grant No. 1122374).

<sup>†</sup>Professor, Department of Political Science, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, MA 02139. Email: cfotini@mit.edu, URL: fotini.mit.edu

<sup>‡</sup>Ph.D. Candidate, Department of Political Science, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, MA 02139. Email: dekeyser@mit.edu

<sup>§</sup>Assistant Professor, Department of Politics, Princeton University, Fisher Hall, Princeton, NJ 08544. Email: dc-knox@princeton.edu, URL: www.dcknox.com

# 1 Introduction

The last fifty years have seen a resurgence in sectarian tensions within Islam, both in the Middle East and across the globe. Inter-sectarian suspicion and animosity has manifested in government clampdowns in Gulf states following Arab Spring upheavals (Matthiesen 2013; Abdo 2016), as well as flaring tensions and conflict in Syria, Yemen, Lebanon, South Asia, and Iraq (Cammatt 2014; Waseem 2010). Indeed, some argue the Sunni-Shi’a religious divide will be the defining conflict of this century (Caryl 2013; Nasr 2016). Yet despite the evident importance of sectarian animosity—that is, antipathy to co-religionists based on membership in another sect—and rich work on the national-level factors that spur sectarian tension, researchers know very little about how sectarian animosity functions at the individual level. This deficit is particularly salient among Shi’a. Despite Shi’a comprising at least 20% of the world’s Muslim population and holding considerable sway in contentious parts of the Middle East, existing work has disproportionately focused on Sunnis—in particular, Sunni men—due to political instability, regime restrictions, and social norms that often pose significant challenges to research.

To gain a richer understanding of sectarian attitudes in this under-studied group, we conducted an original survey of over 4,000 Shi’a pilgrims from Iraq and Iran who travelled to Karbala for the holy day of Arba’een in November 2015. This religious event reportedly attracted 22 million people, over ten times as many as the Hajj that year. We do not argue that these pilgrims reflect the Shi’a population. Indeed, we show that they are markedly more religious than the average Iranian or Iraqi, though the pilgrimage appears to draw surprisingly uniformly on most other dimensions. Rather, we focus on understanding attitudes among the religiously inclined because this subgroup is often seen as central to politics and conflict within both countries. To this end, we used the pilgrimage as a novel channel for examining a contentious topic among a group that is normally difficult to even identify, let alone study. We collect a geographically representative sample of highly religious individuals, then present detailed analyses of participation patterns as well as smartphone-based location tracking of attendees to demonstrate that results are likely to hold for devout men and women from both countries. Our analyses primarily focus on understanding sectarian animosity within the Iraqi sample, where inter-sect relations are a highly salient issue, while the Iranian sample helps us clarify the scope and generalizability of these findings to a similar context that is also central to discussions of Shi’a identity.

In this paper, we seek to lay the groundwork for the systematic study of sectarian animosity in three ways. First, given the lack of standardized measures in a still-developing literature, we propose a latent-variable measurement strategy for sectarian animosity and conduct extensive tests of its validity using self-reported, experimental, and behavioral measures. Second, we take stock of an often case-specific body of work, which has proposed numerous theoretical conceptualizations of this phenomenon, and conduct the first systematic evaluation of these accounts by integrating a range of additional data sources. Finally, we unpack the contents of what we term the “sectarian worldview,” or the bundle of related beliefs that sectarian individuals are assumed to hold—often without evidence. Throughout, we use the breadth of our sample to examine how findings generalize across national contexts and genders, while simultaneously fixing many other factors in the pilgrimage setting.

These results supplement a literature that has primarily examined sectarian animosity at the national level or within a single country context. Drawing from this literature, we examine three understandings of sectarian animosity: transnationalism, religiosity, and ethnonationalism. We find no support for the prominent *transnationalism* narrative—that individual-level sectarian animosity is driven by interests in and allegiance to a global Shi’a community. We also reject a model of sectarian animosity as pure *religiosity*,

grounded in piety, practice, and doctrinally-founded beliefs. Instead, we argue that sectarian animosity is more accurately conceived in terms of the national politicization of sectarian identities, based on the characteristics and preferences of those holding this attitude; despite key differences, sectarianism presents many functional similarities to ethnonationalism. These include the way that economic deprivation, democratic disillusionment, and lack of out-group contact consistently create conditions for out-group animosity across a wide range of contexts, as well as the way in which it leads individuals to evaluate domestic politics, politicians, and political parties through a sect-based lens.

Yet our results suggest that the analogy to ethnonationalism can only go so far. A central finding of our research is that there is important gender heterogeneity in not only the level of sectarian animosity, but also its antecedents. While women hold significantly less sectarian animosity than their male counterparts, on average, this result does not appear to be somehow inherent to gender. Rather, gender differences are driven almost entirely by the limited exposure of women to the broader social sphere. Those that participate regularly in public life—including those who work outside the home or even simply engage with the news—hold significantly different levels of out-group animosity, highlighting the social origins of sectarian norms.

We argue that religious practice, though understudied, represents one of the most important channels through which these norms diffuse. Even among our relatively devout sample, substantial variation exists in the level and nature of religious practice. Using this variation, we show that the influence of religion varies dramatically between men and women: Women who do not work outside the home but regularly participate in communal religious practice have levels of sectarianism animosity that rival those of their male counterparts. For men, who already are socialized through regular interaction outside the home, this relationship does not hold. By the same token, we do not see this gender heterogeneity in Iran, where women since 1979 have played a much larger role in the political sphere. These differences are consistent with *religious socialization*—the transmission of non-religious norms that occurs through religious practice among individuals who would otherwise be excluded from the broader social sphere—which we argue is an important but often-overlooked driver of sectarian animosity as well as gendered variation in the influence of religion more broadly (Kucinkas 2010; Scheible and Fleischmann 2013; Hoffman and Nugent 2017).

The remainder of this paper proceeds as follows. Section 2 discusses prior work on sectarian animosity and its historical context in Iraq, where the Arba’een pilgrimage occurred. Section 3 describes our sampling procedure, which exploits the specific mechanics of the pilgrimage, and presents detailed tests that establish the representativeness of the sample. We extensively validate our approach to the measurement of sectarian animosity, then describe our broader analytical strategy, which accounts for missingness, measurement uncertainty, and multiple hypothesis testing in all statistical inferences. Section 4 presents our results, beginning with the hypothesized drivers of sectarian animosity and proceeding to the contents of the sectarian worldview. In Section 5, we consolidate these results to present an understanding of sectarian animosity that is functionally similar to ethnonationalism but highlights the important role played by religious socialization.

## 2 The Nature and Origins of Sectarian Animosity

In this work, we examine the plausibility of three conceptualizations of sectarian animosity—religiosity, ethnonationalism, and transnationalism—at the individual level. These widely diverging theoretical accounts necessarily suggest very different causal chains, including numerous drivers at varying levels of analysis, and we do not claim to fully trace the processes suggested by each. Rather, we focus on testing each account’s observable implications for individuals in the Iraqi and Iranian contexts: the antecedents that should be

observed if each narrative holds true, as well as the religious, transnational, or nationalist beliefs that should accompany sectarian animosity.

Traditionally, work on sect and sectarian animosity within the social sciences has been largely focused on understanding Christian sectarianism, which assumed a established church and subversive sect (Becker 1934; Yinger 1947; Niebuhr 1962; Johnson 1963; Stark and Bainbridge 1987; Troeltsch 1992). This typology clearly does not translate to the Islamic context (Cook 1999) and we thus focus on developing an understanding of the nature and origins of sectarian animosity among Shia Muslims. By examining Iran and Iraq, we are able to examine what varies and remains constant in two very different country contexts.

Most social-scientific work on sect in the Middle East concurs that Sunni-Shi'a conflict is not an inevitable product of doctrinal divisions within Islam (Nasr 2016; Hashemi and Postel 2017; Makdisi 2017), despite frequent claims to the contrary by politicians and pundits alike. Yet this does not mean that sectarian divisions cannot take on a religious dimension for individuals in a given time and space. As Haddad (2013) notes, during the 20th century, the ethnic term *al-ajam* ("non-Arab," referring to Iran and its sympathizers), was a common insult flung at Shi'a. More recently, however, the religious *al-rafidah* ("the rejectors") has become more common, highlighting a shifting understanding of sect from one that focused on national and ethnic allegiances to a divine battle for Islam's soul. Some work on identity in the social sciences also argues that religious cleavages are often more salient than ethnic or national allegiances, due to their inherent ideological, moral, and supernatural claims and organizational demands (Stark and Fink 2000; Wald et al 2004; Varshney 2007; Grzymala-Busse 2012).

An alternate understanding of sect is as an identity with significant functional similarities to ethnonational movements, both because of its structure and aims. Structurally, some have argued that religion—and by extension sect—is no different than any other identity cleavage (Chandra 2006; Posner 2005; Bellin 2008). Schisms with religious or doctrinal origins can also begin to manifest the symbolic, cultural, behavioral, and even linguistic differences associated with ethnicity (Little 2011; Haddad 2011). In the case of Islam, while the Sunni-Shi'a schism traces its roots to seventh-century debates on religious succession over a millennium has since passed, giving rise to divergences in cultural symbols, practices, and traditions that now rival or even surpass theological disputes in prominence (Hashemi and Postel 2017). Others note that modern sectarian movements hold similar goals to ethnonational movements, seeking to gain or maintain control of national government, resources, and identities (Kepel 2002; Ayooob 2007; Haddad 2011). The recent surge in sectarian tensions, in this conceptualization, are the result of efforts by authoritarian leaders to perpetuate their power (Hashemi and Postel 2017), a strategy of survival of weak states (Migdal 1988). These parallels support a second conceptualization of sectarianism as a type of ethnonationalism, though it is unclear whether the same factors in fact push individuals toward out-group animosity in both cases.

Yet other work focuses on the growth of a transnational sectarian movement in the modern Middle East, rather than the role of national-level factors. The regional rivalry for soft power is central to this geopolitical understanding (Mabon 2015). In this account, the rise and fall in tensions between Saudi Arabia and Iran, especially since 1979, are reflected in fluctuations in sectarian animosity throughout the region more broadly (Gause 2014). The dissemination of these transnational sectarian tensions to individuals has been posited to occur through two avenues. The first is through Saudi and Iranian funding of sectarian groups, ranging from humanitarian organizations to political parties to militant groups (Shahrani 2002; Salisbury 2015). The second is through individual-level identification with broader sectarian conflicts leading to greater sectarian polarization at the individual level, a phenomenon arguably amplified with the rise of YouTube, social media, and other forms of online communication (Kepel 2002, 2017).

We examine the plausibility of these three accounts by considering two interrelated questions: How do individuals understand their sectarian identities, and which individuals hold out-group animosity? With these in mind, we turn to the observable implications of individual understandings of sectarian animosity as religiosity, ethnonationalism, and transnationalism. First, if sectarian animosity is largely driven by or understood as a manifestation of religious devotion, we should expect more religious individuals to embrace more sectarian attitudes. Thus, higher levels of religious practice, religious knowledge, and potentially religious conservatism should be associated with more sectarian animosity. We might also expect, though not assume, a link between politicized religiosity and sectarian animosity, manifested as a greater desire for increased religious presence in the government. Economic insecurity has also been argued to increase fundamentalist religious beliefs, such as hardline sectarian animosity (Marty and Appleby 1995; Euben 1999; Almond et al 2003). This economic explanation has also been presented as an explanatory factor for fundamentalism among women, who arguably see their power and earning potential decrease through selecting into a fundamentalist way of life and thus are more likely to embrace fundamentalist beliefs if they have more limited economic opportunities (Blaydes and Linzer 2008).

There are two channels through which this religiously driven animosity may arise. One is through official religious doctrine,<sup>1</sup> which may characterize out-group teachings as heretical. (However, doctrine can also work as a moderating force: In the case of Shi'a Islam, the vast majority of influential religious leaders in Iraq and Iran call for sectarian unity, not conflict.) Another channel is through socialization. In many cases, religious adherence involves a variety of in-group activities that can solidify pre-existing sectarian ties, potentially increasing aversion to out-group members (Wald et al. 2004). This socialization can also encourage the adoption of group norms that have little to do with official religious beliefs.<sup>2</sup> The overall influence of religion is thus not always in the same direction (Potter et al. 2012). As a result, religion may have a more complex role depending on the differential influences of doctrine and socialization for a given individual.

Second, if sectarian animosity operates similarly to ethnonationalism, we should see similarities in its antecedents and correlates at the individual level. We consider a number of factors that have been consistently associated with ethnonationalism. A large body of research argues that ethnic polarization is encouraged by exposure to violence, limited intergroup contact, and economic insecurity; these suggest that similar patterns should hold with sectarian animosity. Exposure to violence has been hypothesized to encourage intergroup tensions (Fearon and Laitin 2000) through reinforcing the tensions that instigated it, further deepening pre-existing animosities and hatreds (Petersen 2002). Intergroup contact, on the other hand, is presumed to decrease intergroup tensions in most circumstances (Allport 1968; Emerson et al. 2006; Clingingsmith et al. 2009), a hypothesis that has been supported in contexts as diverse as post-war Burundi and immigrant communities in the Netherlands (Savelkoul et al. 2010; Samii 2013). Real economic concerns have also been presented as instrumental in the development of sectarian and ethnic tensions (Collier 2000; Kalyvas 2008). The rich literature on Islamist parties has largely come to the consensus that support for such parties is driven by primarily economic, rather than religious, motivations, with the term "Islamist" serving as an informational shortcut to evaluate whether a party will be trustworthy and provide public goods (Miller 1993; Lia 1998; Noor 2003; Misra 2004; Amuzegar 2007; Mujani and Liddle 2009; Pepinsky et al. 2012; Cammett and Luong 2014 among others). While this list of potential drivers is far exhaustive, their ubiquity suggests

---

<sup>1</sup>Similarly, broader work on the influence of religion on attitudes toward the state also discusses the importance of doctrine (Weigel 1999; Philpott 2007).

<sup>2</sup>This is consistent with work showing that religious influence on views toward the state can operate through communal religious practice (Ludden 2005; Wilkenson 2005; Mitchell 2017).

that these factors should play an important role if the ethnonationalist lens is to be useful in understanding sectarian animosity.

Under an ethnonationalist view of sectarian animosity, we would also expect to see similarities in a focus on national-level aims. This would mean a greater desire for co-sectarians in government or sectarian political parties and potential dissatisfaction with non-sectarian leaders or political systems. We also would expect to see national goals placed above transnational sectarian goals, and on the individual level, more negative perceptions of co-sectarians that are not also co-nationals or co-ethnics. In the case of Iraq and Iran, this could manifest in pro-Shi'a sentiment not translating to pro-Iranian sentiment, despite shared sect. We might also expect disillusionment with national-level political systems to drive sectarian tensions. Note that this individual-level discussion necessarily overlooks elite and institutional arguments that highlight ethnic entrepreneurs and a fight over defining national symbols, as we are interested in individual-level rather than society-level drivers and aims.

Finally, if sectarian animosity in Iran and Iraq arises as part of broader support for a transnational Shia movement (Kepel 2002, 2017), we should expect to see a number of patterns relating both to Shi'a in general as well as relations with Iran in particular. First, individuals with high animosity to should tend to have greater awareness of and sympathy for Shia group interests, including Shia groups involved in conflicts throughout the Arab world. While this does not necessarily mean unqualified support for the Iranian government, given Iran's central role in sectarian geopolitics, it would also stand to reason that sectarian individuals should to show greater support for Iranian foreign policy on average (Shahrani 2002; Gause 2010; Salisbury 2015). Second, we would expect affinity toward co-sectarians who are not co-nationals or co-ethnics (Mandaville 2009; Malet 2013). Third, we would expect greater ideological and potentially financial support for international sectarian movements across the Middle East. And lastly, we might expect to see similarities between Shi'a in both Iran and Iraq, especially on sect-related topics, as evidence of the growing importance of transnational identity.

Within each of these conceptualizations, gender is often seen as a secondary discussion. Yet prior work on gender in the Middle East has highlighted the vastly different experiences of men and women, in large part due to differing exposure to the public sphere (Kucinkas 2010; Scheible and Fleischmann 2013; Hoffman and Nugent 2017). The pilgrimage allows unusual access to a wide-ranging pool of female respondents, offering the opportunity to evaluate how theoretical accounts generalize across gender contexts in addition to national contexts; the differences we observe help shed light on scope conditions and possible mechanisms. To highlight one prominent example, we show in Section 4 that the link between religiosity and sectarianism is entirely reversed between women and men. While men engaging in (1) more frequent and (2) more communally oriented religious practice tend to hold more moderate attitudes toward Sunnis, the very opposite is true for women. In Section 5, we propose a concise theoretical explanation, revolving around the socialization that occurs during communal religious interaction, that helps explain this and other surprising gender patterns.

## 2.1 Sectarian Animosity in Iraq

Scholars that have examined sectarian animosity in Iraq (Haddad 2011; Khoury 2010; Nakash 2003; Blaydes 2018) have highlighted its politico-historical drivers. They see it as driven by political realities and access to power and resources, rather than a form of ancient hatred attributable to the religious schism between Sunnis and Shiites resulting from the 632 AD disagreement over Prophet Muhammad's successor. As such, it is presented as a phenomenon that has waxed and waned in intensity (Sarkin and Sensibaugh 2008). This literature recognizes and highlights the roots of sectarian cleavage that elites have used to mobilize sectarian

identities over time. For example, Ottoman and Persian competition in Iraq during the 16th century led to institutional discrimination against Iraqi Shiites.

During the British invasion, there was a notable period of Sunni-Shiite unity against British control and in favor of national self-determination (Kadhim 2010). Though the development of a standardized education aided sectarian unity (Sarkin and Sensibaugh 2009), the entrenchment of Sunnis in the bureaucracy solidified their advantage during the British mandate and monarchy of King Faisal (Sluglett 2014). This continued until after WWII, when more Shiites joined the civil administration, leading to increased inter-sectarian interaction among the middle class in urban centers. In the 1950s, nationalist loyalty was seen as triumphing over sect or tribe. There was also notable economic progress and increased social mobility for Shiites, prompting intermarriage (Blaydes 2018). Yet while the Baathists, who took power in 1963, at first aimed for unity, the growth in the state-run economy and repressive politics pushed the Shi'a to the margins once again.

Relations worsened with the Iran-Iraq war and Iranian revolution, when Shiites were seen as potential Iranian allies, leading to surveillance, informing, and indoctrination that entrenched sectarian dynamics (Blaydes 2018). After the Iran-Iraq war, Saddam openly targeted Shiites, culminating in the violent repression of the 1991 Shiite rebellion (Khoury 2010). The indiscriminate violence and punishment associated with this event led to over thirty thousand dead within three weeks and approximately seventy thousand fleeing, mainly to Iran (Marr 2004, 251). When the US invasion happened in 2003, sectarian animosity was already deeply entrenched (Dawisha 2010). The fall of the Baathist regime led to a decline in Sunni dominance and subsequent resentment (Haddad 2011). The civil war over the next decade was fought largely along sectarian lines, leading to massive deaths, internal displacement, and ethnic cleansing in the mixed neighborhoods of Baghdad. While the official end of sectarian violence came in the fall of 2008, it never fully disappeared and witnessed a resurgence with the rise of ISIS in 2012. In the aftermath of ISIS's demise, sectarian tensions remain one of the most pressing social issues of contemporary Iraq.

## 3 Survey and Measurement

### 3.1 The Setting

The concept of pilgrimage is enshrined in Islam as the Hajj, one of the religion's five pillars, which requires that all able believers visit Mecca at least once during the month of Thu Al Hujja.<sup>3</sup> While this is the most important pilgrimage for Muslims, Sunni and Shi'a alike, Shi'a scholars have also written extensively on the importance of travelling to shrines of the prophet, imams or Mohammed's companions. These are known as *ziyara*, or visit. In this act of piety, the believer asks for help or forgiveness, thanks the imam, and prays for guidance in this life and redemption in the next. While not considered obligatory, the spiritual rewards associated with the visit to Imam Hussein's shrine in the city of Karbala in Iraq are often compared to that of the Hajj.

Though individuals can go on a religious visit to Karbala at any time of year, there are many more visitors on two occasions commemorating the martyrdom of Imam Hussein—Ashura and Arba'een. Ashura, which marks the date of Imam Hussein's martyrdom, occurs forty days before Arba'een, when the pilgrimage reaches its peak. Individuals set out by foot several days ahead of the commemoration in order to walk to Imam Hussein's shrine. Groups walk from places as far as Basra (roughly 500 km away) and Baghdad

---

<sup>3</sup>Umrah visits constitute a pilgrimage to Mecca at any time of year other than the Hajj.

(roughly 120 km away), engaging in communal rituals involving recitations, lamentations and re-enactments during the journey. As part of the mourning process, people walk carrying black, green, red or yellow flags for Imam Hussein, as well as wear black clothes to signify mourning and green bands on their heads or necks. There are also posters of Imam Hussein and loudspeakers broadcasting religious poems or sermons.

Because of the opportunity for Shi'a collective action, Saddam Hussein's regime had imposed a decades-long ban on group expressions of Shiite faith. The pilgrimage was reinstated in 2003 after the US invasion and has since steadily grown in numbers, with Iraqis being the most frequent visitors, followed by Iranians.<sup>4</sup>

In late November and early December 2015, when we conducted this survey, approximately 22 million Shiite pilgrims were said to have visited the shrine.<sup>5</sup> As such, this pilgrimage is currently the largest religious gathering in the world, significantly larger than the Hajj which attracts two to three million pilgrims each year. Despite its massive and public nature, this religious pilgrimage is largely unknown to the Western world, as are the attitudes towards sectarian animosity of observant Shi'a that attend it.<sup>6</sup>

## 3.2 Sampling Design

The sampling design of the survey aimed to gather a geographically representative sample individuals across Iran and Iraq, though the religious nature of the event naturally resulted in a respondent pool skewing toward the devout.<sup>7</sup> Below, we discuss our sampling strategy based on the unique customs of the pilgrimage.

The logistics and rituals of the pilgrimage procession allowed us to achieve our target of geographic representation. Our sampling was concentrated within Karbala and on the 80-kilometer road between the cities of Karbala and Najaf, the most frequented portion of the pilgrimage route. The sides of this route are dotted with clusters of service tents, known as mawakib, which offer food and shelter to pilgrims. These mawakib tend to have a specific regional identity, hosting people from different governorates and provinces in Iraq and Iran. Travelers stop for long periods of time, not only to dine or drink water and tea, but also to recharge mobile phones, repair shoes, or even get weary feet and legs massaged by local volunteers. Mawakib are also full at night, when pilgrims use them to sleep.

The regional nature of the mawakib therefore allowed us to cleanly target a diverse and representative geographic sample. Because Iraq had not had a census in nearly two decades, and there has been significant conflict-based migration since that date, we determined geographic targets by the number of Shi'a politicians in the Iraqi parliament, known as the Council of Representatives. In Iran, where the population is overwhelmingly Shi'a, we use 2011 census data to construct geographic targets. Online Appendix A provides more details on this process. The survey was administered to 2,410 Iraqi and 1,668 Iranian pilgrims; we sought, to the degree possible, roughly equal numbers of male and female respondents between the ages of 18 and 60. About 15% of men and 20% of women declined to participate, primarily due to lack of time before their group departed.<sup>8</sup>

We validate our sampling strategy using a mobile-location dataset of individuals in Iraq who voluntarily share their device location with installed mobile applications. This data was aggregated by Safegraph, a

---

<sup>4</sup>Iran's Central Company of Pilgrimage Service Providers (*Sharekat Markaziye Dafatere Khadamate Zeyaratie Sarasare*) offers all-inclusive tours to the pilgrimage.

<sup>5</sup>Official statistic from the Iraqi ministry of culture (News24, 2015).

<sup>6</sup>See renowned works by Fernea 1970; Warnock-Fernea 1965; Nakash 1994; Jabar 1985. The sole recent work in English appears to be a masters thesis using participant observation by Hamdan (2012).

<sup>7</sup>We treat the pilgrimage as a means for access to this difficult-to-reach group, not as the object of study itself, as in Clingsmith et al. (2009).

<sup>8</sup>While we originally planned to survey 1,500 Iranians and Iraqis, we had more Arabic-speaking Iraqi enumerators than anticipated. As one of the goals of this survey was training competent young Iraqi enumerators to build future capacity, we oversampled Iraqis to help fulfill this mission. More information on enumerator teams is provided in the Online Appendix.



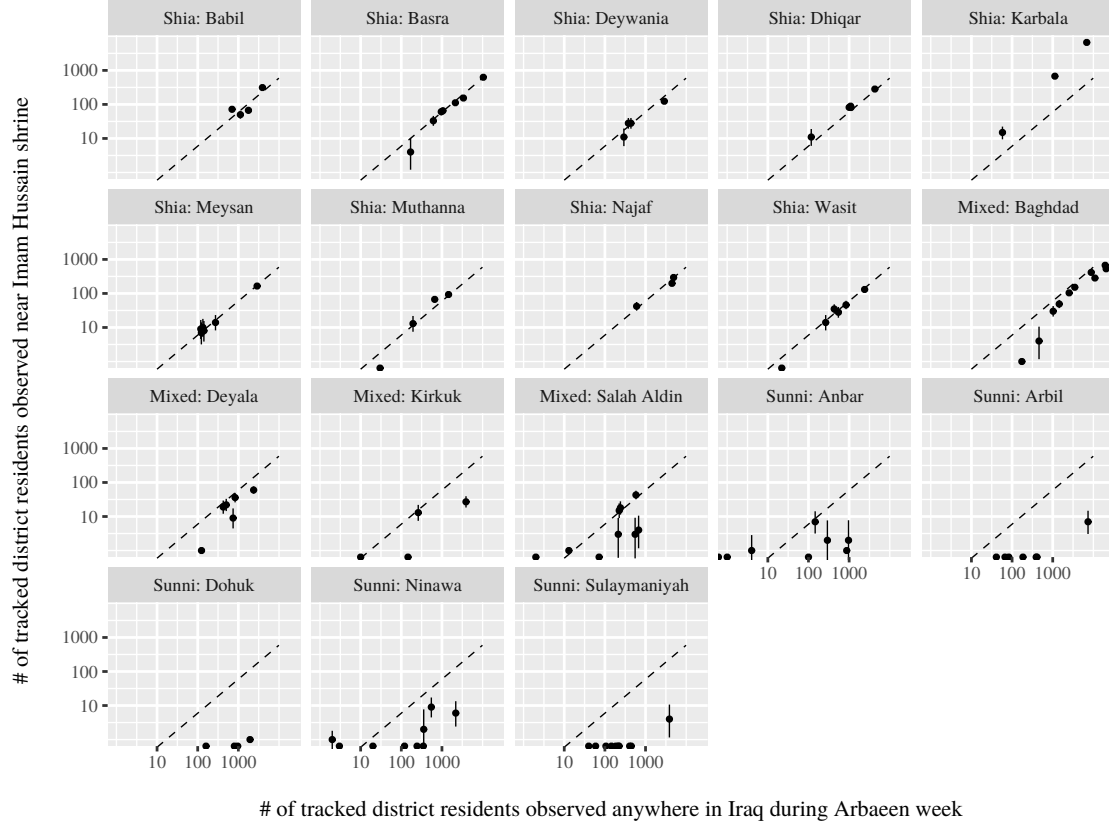


Figure 1: **Estimated participation rates in 2017 pilgrimage from mobile location data, by province and district.** Dashed line corresponds to a 6.0% participation rate, the average participation rate in Shi’a provinces excluding Karbala. In Shi’a provinces, districts rarely deviate far from this average participation rate, with the exception of Karbala where easy access leads to far higher engagement. In mixed provinces that are heavily segregated, Shi’a-heavy districts can attain similar participation rates (e.g. Daquq, Kirkuk). Participation in mixed and Sunni districts is markedly lower.

location data clearinghouse, and provided in an anonymized form spanning September to December 2017.<sup>9</sup> Using a procedure described in Online Appendix A, we compute the home districts of over 300,000 individuals across Iraq. For each district, we calculate the proportion of tracked residents who appear near the shrine of Imam Hussein during the week of Arba’een.

Figure 1 shows that average participation rates in Shi’a-dominated provinces hover around 6%—there is no evidence that geographic distance reduces attendance, with the sole exception of Karbala locals, for whom proximity leads to far higher participation. This, together with an analysis of province-specific religious practices in Figure A2, suggests that despite variation in the cost of attendance—both economic and otherwise—these costs do not appear to substantially tilt Iraqi pilgrimage participation or, by extension, survey sampling.

Rather, our analyses suggest—perhaps unsurprisingly—that religious devotion is the main dimension on which survey respondents differ from the broader Shia population. While we were unable to reach non-pilgrims due to the design of the study, we did ask respondents whether they had previously participated in Arba’een. This question allowed us to gain leverage on the drivers of pilgrimage participation, assuming

<sup>9</sup>The anonymized analysis was conducted under [institution and IRB protocol number anonymized].

that the same factors driving initial visits also lead to subsequent reattendance. Specifically, if Arba’een preferentially attracts religiously practicing individuals, then highly practicing individuals should on average have attended more often. Prior participation patterns are discussed in Online Appendix A, with detailed regression results in Table A8. We find, as expected, that a composite measure of religious practice described in Section 4 is strongly associated with repeat pilgrimaging in both Iraq and Iran. Thus, while not every individual on the pilgrimage is necessarily devout, on average individuals attending Arba’een are unquestionably more devout than the population as a whole. In Iran, we also find that wealthier individuals are also more likely to attend. The same is not true in Iraq, a difference that may reflect the greater commitment required for Iranians to participate.

We use the same approach to assess the related concern of whether sectarian polarization is larger in our sample than the population—in other words, if our study design may lead us to conclude that sectarian animosity is more prevalent than it actually is. We find no evidence for this. In fact, if anything, the reverse is true: Repeat attendees are less sectarian, even after controlling for age, income, education, and other demographic characteristics. These findings correspond to qualitative accounts and our own observations of the atmosphere around the pilgrimage—while Arba’een is a holiday dedicated to mourning, the environment is nevertheless festive and religious, not sectarian and confrontational.

### 3.3 Descriptive Statistics

Overall descriptive data on the sample can be found in Table A3. While we intended to survey equal numbers of men and women, an imbalance in enumerator gender resulted in the slight overrepresentation of Iraqi women. Our age distribution also largely followed our goal of sampling respondents between the ages of eighteen and sixty, with about half above the age of thirty-five and half below it. About forty-five percent of respondents had paid work, and on average stated they had “some difficulty” meeting their financial needs. The average Iraqi respondent had a middle school education. On these characteristics, our sample is midway between other surveys conducted in Iraq, as discussed in the Online Appendix A.

Corresponding to our expectations about the devoutness of the sample, respondents were in general highly religious. For example, virtually all respondents reported praying daily. Nonetheless, substantial variation existed in the nature and frequency of many other religious activities: 64% read the Koran or other religious texts on a daily basis, 45% consumed religious media daily, and only 43% of individuals reported attending religious lessons at a mosque. A high percentage of respondents also paid khoms, which for Shi’a is the obligatory payment of an Islamic tax of one-fifth of a person’s surplus annual income, with wealthier and more religious individuals being more likely to pay. 53% of those in the lowest income sufficiency bracket paid khoms, compared to 75% of those in the highest bracket. We also examine how this has evolved over time through a pseudo-panel based on respondents’ fathers’ beliefs, briefly discussed in Online Appendix A.

The differences between Iraqi and Iranian respondents appeared to be largely reflective of differences between the two countries as a whole, and are described in more detail in the Online Appendix A.

### 3.4 Measurement

To aggregate the various instruments used to measure sectarian animosity in our survey, we develop and validate a latent-dimension measurement strategy based on self-reported attitudes toward Sunnis, and conduct extensive tests to address validity concerns.

We use an extension of principal component analysis (PCA) to construct a weighted index from multiple

questions that each imperfectly proxy the same unobservable construct. The use of a composite measure helps address concerns that our findings are overly reliant on individual questions, and builds on an extensive body of work on dimension reduction and factor analysis including in the study of Islam (Pepinsky et al. 2016). However, we go beyond prior applied work by ensuring our subsequent analyses—that is, regressions using the resulting index—accurately reflect the inherent uncertainty of dimension reduction and missing data.

In the Bayesian formulation of PCA (BPCA; Tipping and Bishop 1997; Bishop 1999), each individual  $i$  has  $Q$  latent attributes,  $\mathbf{x}_i = [x_{i1}, \dots, x_{iQ}]$ , which are assumed to follow  $\mathbf{x}_i \sim \mathcal{N}(\mathbf{0}, \mathbf{I})$ . These attributes are translated into the individual’s responses to  $D$  survey questions,  $\mathbf{t}_i = [t_{i1}, \dots, t_{iD}]$ , according to  $\mathbf{t}_i = \mathbf{W}\mathbf{x}_i + \boldsymbol{\mu} + \boldsymbol{\epsilon}_i$ , where  $\mathbf{W}$  is a loading matrix representing the contribution of each attribute to each questions,  $\mu_d$  is the average response to question  $d$ , and  $\boldsymbol{\epsilon}_i \sim \mathcal{N}(\mathbf{0}, \sigma^2 \mathbf{I})$ . Standard PCA implicitly computes maximum-likelihood estimates for  $\mathbf{x}$  and  $\mathbf{W}$  under this model, neglecting the uncertainty that stems from applying this procedure to noisy survey response or few individuals. In Appendix A, we show that the observed responses map back to the latent space by  $\mathbf{W}^\top (\mathbf{W}\mathbf{W}^\top + \sigma^2 \mathbf{I})^{-1}(\mathbf{t} - \boldsymbol{\mu})$ ; based on this, we construct the sectarian index used in our analyses. Loadings and Cronbach’s alphas for this and all other composite indices are reported in the appendix.

While missing data is often ignored in PCA, we take this issue seriously to avoid biases that may be introduced by listwise deletion of individuals that fail to respond to any component question. We assume that data may be conditionally missing at random (MAR) and can be probabilistically explained by the observed responses. This formulation allows for differential missingness depending on an individual’s latent sectarian animosity, as well as higher levels of missingness for certain questions. Without this assumption, nothing can be said about the missing data, and individuals with any nonresponse must be deleted entirely—introducing an entirely different form of bias (King et al. 2001). We develop a Markov chain Monte Carlo procedure that alternates between (1) sampling from the BPCA posterior conditional on complete data and (2) sampling from the posterior on missing data conditional on BPCA parameters. This procedure ensures that uncertainty due to missingness is correctly reflected in the resulting index. When using the index in subsequent regressions, as in Sections 4.1 and 4.2, we use a two-stage procedure to sample from the joint posterior of both PCA parameters and regression coefficients. Marginalizing then obtains a posterior on regression coefficients alone. All reported  $p$ -values are two-sided posterior tail probabilities.

Our primary sectarian animosity measure is the first component of a battery of questions relating to out-group perceptions and stereotypes. A complete list with question-specific response distributions is given in Table 1, and BPCA results in Figure 2. Although no component question captures the full extent of sectarian animosity and individual questions may be contaminated by elements of other beliefs, we find that resulting primary latent dimension is highly consistent with our qualitative conception of sectarian antipathy. In the Online Appendix A, we validate this measure extensively with an array of conjoint and behavioral survey experiments, finding that it consistently explains anti-Sunni behavior across hypothetical scenarios of varying realism. The principal component is robust to dropping any single component question, minimizing concerns about bias or flaws in a single question leading to incorrect results.

This measurement technique is similarly applied to batteries of questions about attitudes toward democracy, self-reported religious practice, perceived gender roles, desire for religious involvement in government, news consumption, support for Iranian interventions in other countries, support for foreign Shi’a movements, and sect-based views on politics. The exact survey questions are reported in Tables A9–A16, and loadings are shown in Figures A3–A11 in the Online Appendix.

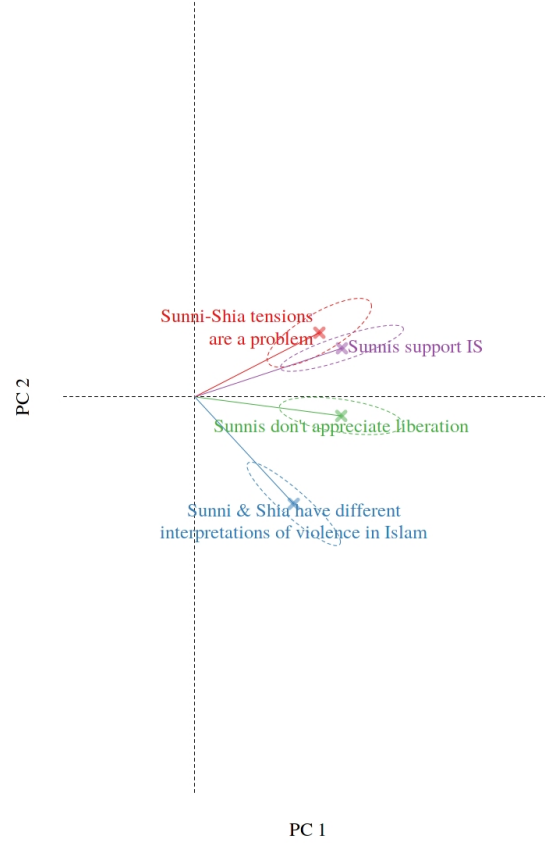


Figure 2: **1st and 2nd Bayesian Principal Components of Sectarian Animosity.** Posterior means (crosses) and 95% regions (ellipses) for survey question loadings onto principal components (PC). Each question loads strongly onto the first component, representing overall sectarian animosity, though with somewhat larger weights for negative stereotypes and lower weights for more abstract questions. The second component is of less substantive interest, primarily distinguishing a theological question from a practical assessment of current events. We discard subsequent dimensions and analyze the first.

Question	Responses	Iraq Proportion	Iran Proportion
In your opinion, how big of a problem are tensions between Sunni and Shi’a in Iraq?	Not a Problem	0.18	0.12
	Small Problem	0.19	0.18
	Moderate Problem	0.16	0.23
	Big Problem	0.48	0.48
Do Sunni and Shi’a have different interpretations of violence in Islam?	Similar	0.21	0.33
	Very different	0.79	0.67
How much do you think the Sunnis in areas under IS control appreciate the efforts of Hashd Shabi to liberate them?	Don’t Appreciate it at all	0.23	0.14
	Don’t Appreciate it very much	0.28	0.18
	Appreciate it Somewhat	0.38	0.31
	Appreciate it a lot	0.12	0.38
In your opinion, how many Iraqi Sunnis support IS?	A small minority	0.32	0.48
	About half	0.31	0.30
	Most	0.37	0.22

Table 1: **Basis Questions in Sectarian Animosity Index.** The sectarian animosity index was constructed by taking the first Bayesian principal component of four questions. Responses were converted to integer scale and standardized before analysis. The final principal component is robust to dropping any of the included questions, minimizing concerns that one question is introducing bias in the final results.

## 4 Results

In this section, we begin by examining a number of factors that are commonly described as causes of sectarian animosity, discussed in Section 2. Using the sample of devout Shi’a across Iraq, we test the observable implications of each—integrating data sources ranging from smartphone location tracking to military reports on insurgent attacks—to develop a richer understanding of the many ways in which sectarian animosity can be activated in different domains. We also examine gendered differences in the drivers of sectarian animosity, then turn to the Iranian sample to evaluate whether results hold in different national contexts.

While each hypothesized driver could merit a much deeper discussion, we deliberately opt for a wider perspective to better inform future work. We also do not horse race the various causal channels, and argue that many drivers are likely to operate simultaneously. We find strong evidence that the specific drivers of sectarian tensions vary tremendously by context, suggesting the need for richer theory about the settings in which these factors should operate. Our goal is to assess whether the results, construed as a whole, fit in with general theoretical accounts of sectarian animosity. In other words, we seek to understand whether (for example) ethnonationalism is a useful lens through which analysts may view sectarian tensions.

Our conclusions are based both on the context in which this animosity appears, discussed above, and on the content of what we call the sectarian worldview, or the bundle of adjacent beliefs that may be held by highly sectarian individuals. A priori, we hypothesized that these might include conservative views on gender roles, or a sense of membership in a Shi’a movement that transcends national borders. Yet generally speaking, we find little evidence of a consistent worldview shared among sectarian Shi’a in the region. Rather, sectarian animosity is inextricably tied to local processes. For example, among sectarian individuals in Iraq, sect appears to function much like ethnicity often does: as a cue for assessing domestic political groups. In

contrast, this role is simply irrelevant in Shi’a-dominated Iran. We further find that the politicization of sect is distinct from that of religion, and that animosity toward a religious out-group was not necessarily accompanied by a desire for Shi’a religious authorities to wield greater power in government. Perhaps most surprisingly, we find that in most cases, sectarian animosity does not translate to support for Shi’a causes beyond one’s own national borders.

## 4.1 Potential Drivers of Sectarian Animosity

What are the factors that push individuals toward sectarian animosity, and are there discernable commonalities in the way these operate across cultures? We first examine the Iraqi case, where sect plays an inescapable role in national politics and, for many, daily life. For each of the prominent theories reviewed in Section 2, we evaluate a range of observable implications using numerous data sources. While our data does not allow us to draw firm causal conclusions about the origins of sectarian animosity, the nature of the pilgrimage makes it possible to test these theories among individuals from diverse backgrounds while holding their religious devotion—a typically unobservable confounder—at comparable levels. We focus in particular on understanding the enormous differences in how sectarian animosity operates for women, who have historically been excluded from the public sphere. To understand how these results generalize, we then turn to Iran, where Shi’a homogeneity means that sectarian animosity is much more of an abstract concept than a lived experience as in Iraq. We find a number of commonalities between Iraqi and Iranian men, but markedly different patterns of sectarian polarization among women. These results are consistent with the differing role of women in the two societies, suggesting a direction for future work on sectarian animosity in the Middle East.

Our analysis proceeds as follows. We first regress sectarian animosity on demographic controls<sup>10</sup> and an overall summary indicator for each hypothesized driver (violence exposure is analyzed separately, due to data limitations) using the Bayesian regression procedure described in Section 3.4. To control the false discovery rate while simultaneously testing  $K$  theories, we report Benjamini-Hochberg (BH; 1995) adjusted  $p$ -values ( $p_{\text{adj}}$ ). However, we show that these pooled results mask important heterogeneity across genders. After disaggregating by gender, we find that only economic drivers seem to operate similarly for men and women. All other factors that are relevant for women are unimportant for men or, in the case of religious practice, appear to work in entirely opposite directions. All gender-specific findings are reported with  $p$ -values corrected for  $2K$  simultaneous tests (by theory and gender). All pre- and post-adjustment  $p$ -values are reported for pooled and gender-disaggregated analyses in Table A28.

To better understand the workings of each hypothesized driver, we next conduct a richer analysis incorporating additional measures relating to each. For example, we analyze three measures relating to the broader concept of economic deprivation: household income sufficiency, employment status, and a proxy for wealth and urbanization based on mobile-phone density. These expanded specifications also incorporate province fixed effects; regression tables and all controls are presented in Table A20. Coefficient plots from both specifications are shown in Figure 3, and regression tables are given in Table A20. To deal with a nested testing structure in which several tests belong to a “family” bearing on one overarching hypothesis, we use the hierarchical testing procedure of Peterson et al. (2016). This allows us to compute both overall family  $p$ -values (e.g. whether any economic factors matter) and control the average family-specific false discovery rate (*which* economic indicators matter). Appendix A describes the procedure in detail; complete results are given in Table A29.

---

<sup>10</sup>Demographic controls in the baseline specification include gender, a quadratic term for age, and years of education.

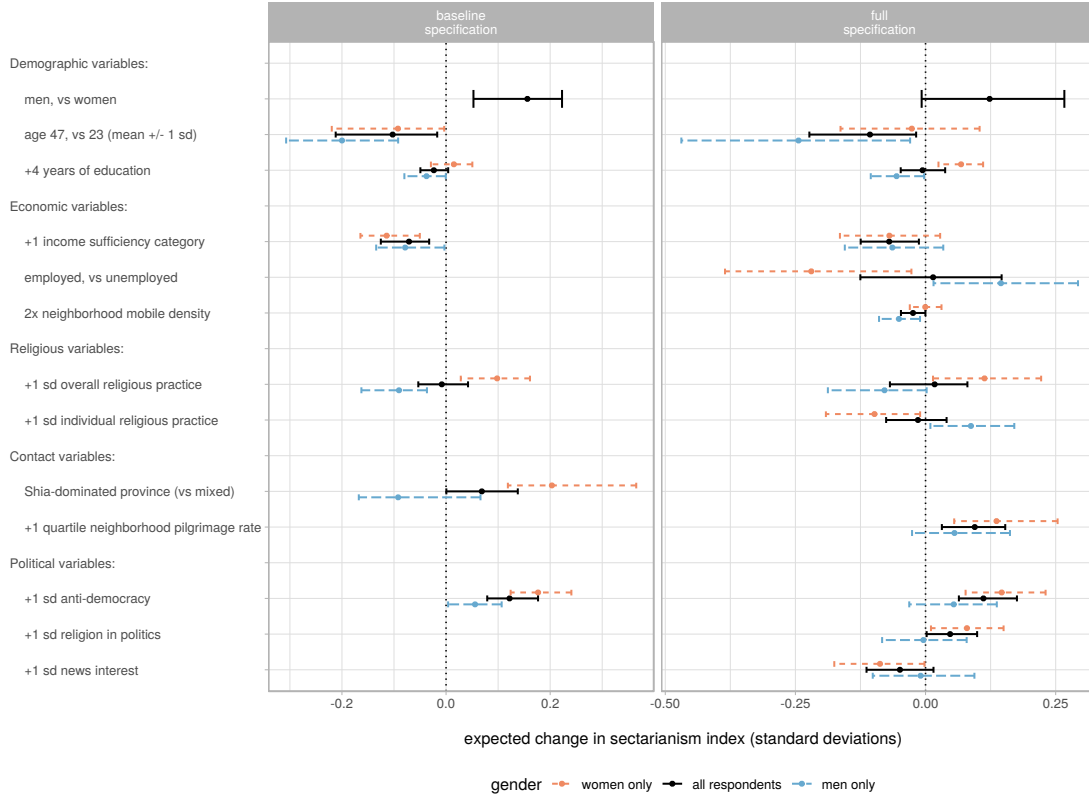


Figure 3: **Testing drivers of sectarian animosity among Iraqi respondents.** The left (right) coefficient plot summarizes regression results from a specification in which single (multiple) measures correspond to each hypothesized cause. Points and errorbars are posterior means and 95% credible intervals after accounting for uncertainty from BPCA-based indices. Full specification includes province fixed effects. A corresponding coefficient plot for Iranian pilgrims is given in Figure 5.

#### 4.1.1 Economic Wellbeing

We first examine the relationship between economic well-being and sectarian animosity using a four-point scale of household income sufficiency as an overall economic well-being measure.<sup>11</sup> Findings are consistent with the notion that impoverishment makes individuals somewhat more susceptible to out-group resentment: a one-point increase on this scale (roughly 1 s.d.) is associated with a 0.07 s.d. decline in sectarian animosity ( $p < p_{\text{adj}} < 0.001$ ).

We unpack this result using a richer specification that incorporates additional variables, including other economic measures. Results are virtually identical even after controlling for mobile phone density in the 10-kilometer radius around a respondent’s home—a proxy for local urbanization and wealth that we compute from our location-tracking dataset, given the lack of fine-grained census statistics—suggesting that poverty operates on an individual level, rather than a community level. However, employment appears to work in a more nuanced manner. Men who are employed appear to be *more* sectarian than the unemployed, despite being better off ( $p = 0.030, p_{\text{adj}} = 0.065$ ). We attribute this divergence to the fact that government bureaucracies, a major employer of Iraqi men, regularly assign jobs through sect-based patronage networks. Regular exposure to this system likely contributes to a sense of sect-based competition for scarce resources. In contrast, employed women are more moderate in their views toward the out-group, as economic deprivation theory expects, although it is important to note that there is strong selection in the types of women who work in the Iraqi context.

#### 4.1.2 Religious Practice

Next, we consider whether Shi’a religious devotion might push individuals toward sectarian animosity, perhaps by raising the salience of doctrinal schisms and making them more inclined to regard Sunnis as heretical. Our operationalization of devotion focuses on religious practice, rather than beliefs, to avoid value judgments on whether particular beliefs are more or less religious. We extract the principal components of a battery of questions about the frequency of various acts, listed in Table A9, using the same BPCA procedure that was applied to sectarian animosity. The first dimension is interpretable as an additive index of overall religious practice, while the second distinguishes respondents who practice in a more individual manner (praying, reading the Quran or Du’a, or consuming other religious media) from those engaged in more communal practice (attending mosque, religious lessons, or Friday congregation prayers).

We find that devotion plays a large role in attitudes toward religious out-groups, but that these effects are heterogeneous and context-dependent in a way that no existing theory predicts. Among Iraqi women, our baseline model indicates that those who are one s.d. more religiously practicing are on average 0.10 s.d. more sectarian. Yet among Iraqi men, we observe a similarly strong but diametrically opposed push toward tolerance (both  $p_{\text{adj}} < 0.001$ ). These results are perplexing from the perspective of current work on sectarian tensions, which posit a homogeneous (or at least consistently signed) effect of religion—for example that sect-based identities are merely a manifestation of religious adherence.

Our results suggest that these shifts are related to religious socialization. In our full specification, which also probes the type of religious practice in addition to its overall magnitude, we find that the apparent effects of religion are reinforced when individuals participate in communal religious activities. Women who take part in collective worship are even more anti-Sunni ( $p = 0.022, p_{\text{adj}} = 0.031$ ), whereas communally practicing men are somewhat more inclined toward coexistence ( $p = 0.025, p_{\text{adj}} = 0.072$ ). On the other hand, women

---

<sup>11</sup>Possible responses were “significant difficulties meeting our needs,” “some difficulties,” “covered our expenses well,” and “were able to save.” responses were converted to an integer scale.



(men) who are more devout but individually practicing tend to look no different from the average woman (man). We ran additional models in which religiosity was interacted with individual/communal practice, although we view the interactive models as exploratory. Results were highly consistent with the religious socialization hypothesis. Men (women) who were 1 s.d. more religious and 1 s.d. more inclined to communal practice differed significantly ( $p \approx 0.01$  for both): They were 0.25 s.d. less sectarian (0.30 s.d. more sectarian). We found no significant differences between average respondents (1) compared to a highly devout and individually practicing individual of the same gender, or (2) compared to a relatively less practicing individual who is communally oriented.

In Section 5, we advance a concise theoretical account that is consistent with both these results and similarly surprising patterns in the worldviews of sectarian women, described in Section 4.2. We argue that the push toward tolerance that we observe among Iraqi men (and replicate in the Iranian case) is more representative of religion’s typical effects. However, our data also reflects a parallel process at work among Iraqi women, who have historically been excluded from public discourse. For these individuals, religious practice—particularly of the communal variety—is the primary channel through which interactions and belief diffusion occurs. Hence, highly religious women simultaneously shift toward the dominant position not only in sectarian animosity, but across a host of other attitudes as well.

#### 4.1.3 Democratic Disillusionment

Work on democratic disillusionment suggests that failures within a political system can encourage individuals to identify more strongly with other non-national identity cleavages, such as sectarian animosity (Akerlof and Kranton 2000). To test the micro-foundations of these arguments, we measure political disillusionment through a BPCA-based index that summarizes a battery of questions about the stability, economic performance, and morality of democracy (listed in Table A10).

Our results lend some credence to these arguments: We find that dissatisfaction with democratic governance is indeed strongly associated with sectarian animosity, although this is primarily driven by women (0.18 s.d. increase per unit increase in disillusionment,  $p < p_{\text{adj}} < 0.001$ ). We speculate that attitudes toward the out-group are more malleable among Iraqi women, who have less exposure to the public arena and as a result form beliefs more from their own life experiences than by absorbing societal consens. The connection is markedly weaker among men (associated at +0.06,  $p = 0.033$ ,  $p_{\text{adj}} = 0.045$ ) and loses significance with additional controls—a counterpoint to the widespread narrative of young, disillusioned men as the key actors in sectarian conflict.

One potential objection to our proxy for disillusionment is that respondents may be opposed to democracy on moral principles, rather than perceived disenfranchisement. To better understand how political factors may affect inter-group tensions, we construct two additional control variables with indices that capture each respondent’s (1) views on the proper role of religion in government, based on questions that touch on political fatwas and related issues, and (2) news interest, using self-reported consumption frequencies across six types of news sources. The uncertainty from estimating these and all other BPCA-based metrics are propagated forward into our analyses. Incorporating these and other controls into our full specification, we continue to find that women dissatisfied with Iraq’s current mode of governance are significantly more anti-Sunni. Finally, we note that the women who support greater religious involvement in government tend to be more sectarian (+0.08,  $p = 0.016$ ,  $p_{\text{adj}} = 0.023$ ). However, we have no clear theory about the causal ordering of these phenomena: One explanation is that anti-Sunni individuals desire the Shi’a religious leaders to have greater influence in order to reduce Sunni political power, but it is no less plausible that individuals desiring

a Shi’a religious state resent Sunnis because power-sharing impedes this goal. This variable is examined further in Section 4.2.

#### 4.1.4 Intergroup Contact

It has long been argued that inter-group contact can ameliorate prejudices, but rigorous tests are notoriously difficult due to the difficulty of measurement and the self-selected nature of interpersonal interaction. Our study is no exception. We operationalize contact in three ways that each makes tradeoffs between specificity and susceptibility to bias. At the crudest level, we use a binary indicator for whether a respondent lives in a homogeneously Shi’a province or a mixed Sunni-Shi’a province, as measured by the proportions from each group on the Iraqi Council of Representatives. While individuals can and do migrate, the costs of doing so make it less likely that this explanatory variable is causally affected by sectarian animosity. We find that women in Shi’a-dominant provinces are 0.2 s.d. more sectarian than those in mixed provinces ( $p < p_{\text{adj}} < 0.001$ ), but we see no such relationship among men. On the other hand, merely living in a mixed province does not necessarily indicate direct contact or even indirect exposure to the out-group, particularly in areas such as Baghdad that exhibit hyper-local patterns of neighborhood segregation. Therefore, we use respondent’s own report of whether they had Sunni friends, to verify that in fact, those living in mixed provinces are far more likely to have out-group friendships.

While these relationships are a second, more accurate measure of contact, obvious self-selection issues make it impossible to interpret the strong negative correlation between Sunni friendships and sectarian animosity. We therefore construct a third contact proxy based on our mobile location dataset. For each respondent who reported a geocodable home city or neighborhood, we first identify tracked mobile devices based in the surrounding area, then monitor whether they appear at the Imam Hussein shrine during Arba’een week. The resulting proportions are ranked to reduce the leverage of noisily estimated values, then rescaled to  $[0, 1]$ . Under the assumption that Shi’a pilgrimage rates are roughly constant,<sup>12</sup> we use the neighborhood attendance rate as a proxy for the proportion of Shi’a residents. While this measure is imperfect (among other issues, it might also capture unmodeled neighborhood devoutness) we believe that it strikes a balance between granularity and self-selection; this measure is included in our preferred model specification. We find that among Iraqi women, a ten-percentile increase in pilgrimage rate—indicating lower Sunni presence and fewer opportunities for contact—is associated with a 0.14 s.d. increase in sectarian animosity ( $p < p_{\text{adj}} < 0.001$ ). While no individual test is definitive, these consistent results are in line with the contact hypothesis that interpersonal relations can decrease inter-group tensions. In this sense, at least, empirics support an understanding of sectarian animosity as operating similarly to ethnicity. Yet for Iraqi men, we find no evidence that contact matters at all. In Section 5, we argue that the structure of Iraqi society leads male attitudes toward the out-group to crystallize earlier, leaving less room for influence by the life experiences we describe here.

#### 4.1.5 Exposure to Violence

Finally, a commonly theorized driver of ethnic and religious tensions is an individual’s prior exposure to violence. Our sample is not particularly suited to this analysis, because we sample based on current neighborhood and are unable to reconstruct each respondent’s migration path during the significant post-US-invasion population movements. However, given the prominence of this hypothesis, we attempt to assess the impact

---

<sup>12</sup>In Figure 1, we show that this assumption appears to be somewhat plausible, at least at the governorate level.

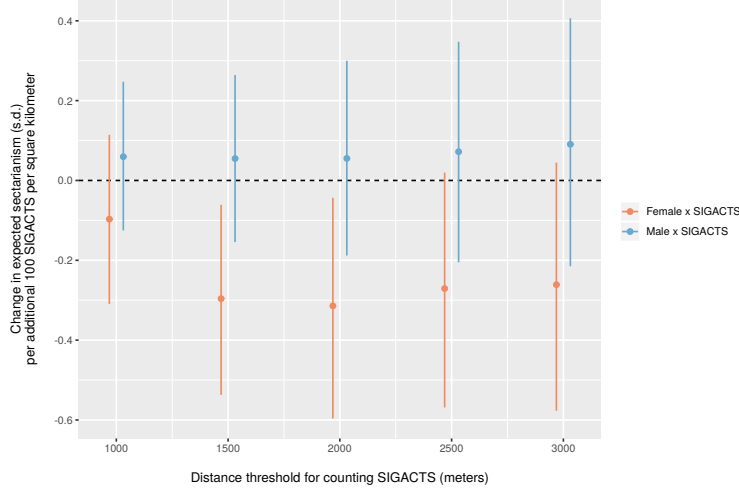


Figure 4: **Sectarian animosity and Exposure to Violence by Gender.** Coefficients from regressions of sectarian animosity on basic demographic, geographic controls, and SIGACTS within varying distances of the respondent’s home neighborhood.

of violence for the sake of completeness. Utilizing a military significant activities (SIGACTS) dataset covering violent incidents in Iraq from 2004 to 2011 (Shaver and Bollfrass 2018), we proxy survey respondents’ exposure to violence with the number of recorded SIGACTS that occurred within a particular radius of their current residence, ranging from one kilometer (roughly a neighborhood) to three km (administrative district). We then evaluate whether the violence exposure of a neighborhood is associated with a resident’s sectarian attitudes. We note that this measure is at best a rough proxy for actual violence exposure, since the heavily affected individuals most likely left their original homes as part of the large-scale displacement that occurred in this period.

Due to data limitations, we subset our sample to a relatively small group of 565 Baghdad residents. Full information on the analysis can be found in the Appendix. Results are summarized in Figure 4; details are given in Appendix A and regression results in Table A22. For men, we see no association between violence exposure and sectarian animosity. Among women, we find some evidence of a counter-intuitive relationship—those living in more violence-exposed areas have slightly less, not more, sectarian views, with a predicted decrease in sectarian animosity of 0.18 standard deviations for each additional 750 SIGACTS within two kilometers of home (one s.d. in violence exposure). We note that this result vanishes when only considering SIGACTS occurring within one kilometer of the respondent’s neighborhood, and results are not significant at conventional levels when we correct for testing at multiple exposure radii. However, we observe moderate gender heterogeneity for exposure radii greater than one kilometer ( $p_{adj} = 0.054$ ). These results could be interpreted to suggest individual exposure to violence alone is not a consistent driver of sectarian animosity, and under some circumstances may in fact encourage victims to adopt more empathetic views toward individuals of the opposite sect. This differential reaction to violence exposure between men and women has been in fact seen in other contexts (e.g. Bauer 2015). At the same time, we cannot exclude the possibility that this apparent heterogeneity is an artifact of differential migration in the face of violence. More details on this analysis can be found in Online Appendix A.

#### 4.1.6 Generalizing to Iran

Are these findings about origins of sectarian animosity generalizable, or are they specific to the Iraqi national and cultural context? To assess this, we turn to the Iranian sample. By doing so in the context of the Arba'een pilgrimage, we are able to reduce typical concerns about cross-national comparability: Both Iraqi and Iranian respondents belong to the same sect, are among the most devout in their respective countries, and indeed often emulate the same religious authorities. Through comparing the two countries, we can have a better understanding of what aims, origins, and associated worldviews are only salient in the specific Iraqi context, and which others might generalize to the broader Shia world. Rather than attempting to explain raw differences in sectarian animosity, we focus on whether *increasing* a hypothesized driver of sectarian animosity appears to produce substantively different results in each country.

We find that economic deprivation appears to operate in a similar way. Iranians who are financially better off, broadly speaking, are less susceptible to sectarian prejudice ( $p < p_{\text{adj}} < 0.001$ ). This mirrors our finding in Iraq, despite differences in the specific channels through which the theory works.

In the religious realm, results among Iranian men support our previous arguments about the moderating influence of mainstream religion. We observe that men who are more religiously practicing by one s.d. are significantly less sectarian by 0.21 s.d. ( $p < p_{\text{adj}} < 0.001$ ). This push toward tolerance is amplified among men who practice communally, as in Iraq. Among Iranian women, religious devotion has no discernible impact on out-group attitudes. We interpret this as a result of Iranian women's comparatively greater political integration, as compared to their Iraqi counterparts—highlighting that this might be a potential long-term equilibrium that Iraqi women are moving towards with increasing political integration and exposure to public discourse.

We are unable to examine the role of the remaining hypotheses in the case of Iran. Questions about anti-regime attitudes were deemed too sensitive to ask of our Iranian respondents, and we lack variation in the explanatory variable for other theorized factors. Within Iran, where the overwhelming majority of the population is Shi'a, no statistical test can evaluate the effects of intergroup contact on sectarian animosity, and the absence of recent violence similarly makes it impossible to examine within-country variation.

## 4.2 Worldview associated with Sectarian Animosity

The rise in sectarian conflict in the Middle East has been accompanied by a number of other societal shifts, including a backlash in some quarters against liberalizing gender roles, a blurring of lines between political and religious domains, and the emergence of religious organizations that recruit members and solicit financial assistance across national borders. While scholars often advance arguments about sectarian animosity that imply a linkage between these attitudes—for example, that sectarian animosity is a manifestation of political Islam, or that it results from the decline of national identity and corresponding rise of ethnicity- and religion-based conceptions of self—there is little evidence about whether individual beliefs in fact correlate on these dimensions.

In this section, we examine the extent to which five general attitudes or beliefs form part of a unified worldview that includes sectarian attitudes. Broadly speaking, we conceptualize the first two as relating to political views: (1) a sect-based political outlook that emphasizes the importance of Shi'a representation; and (2) a desire for a greater role of religion and religious leaders in political decision-making. We also examine (3) endorsement of conservative gender views, including stereotypes about leadership and the role of women in the family and workplace. This measure can arguably be considered a proxy for overall conservatism,

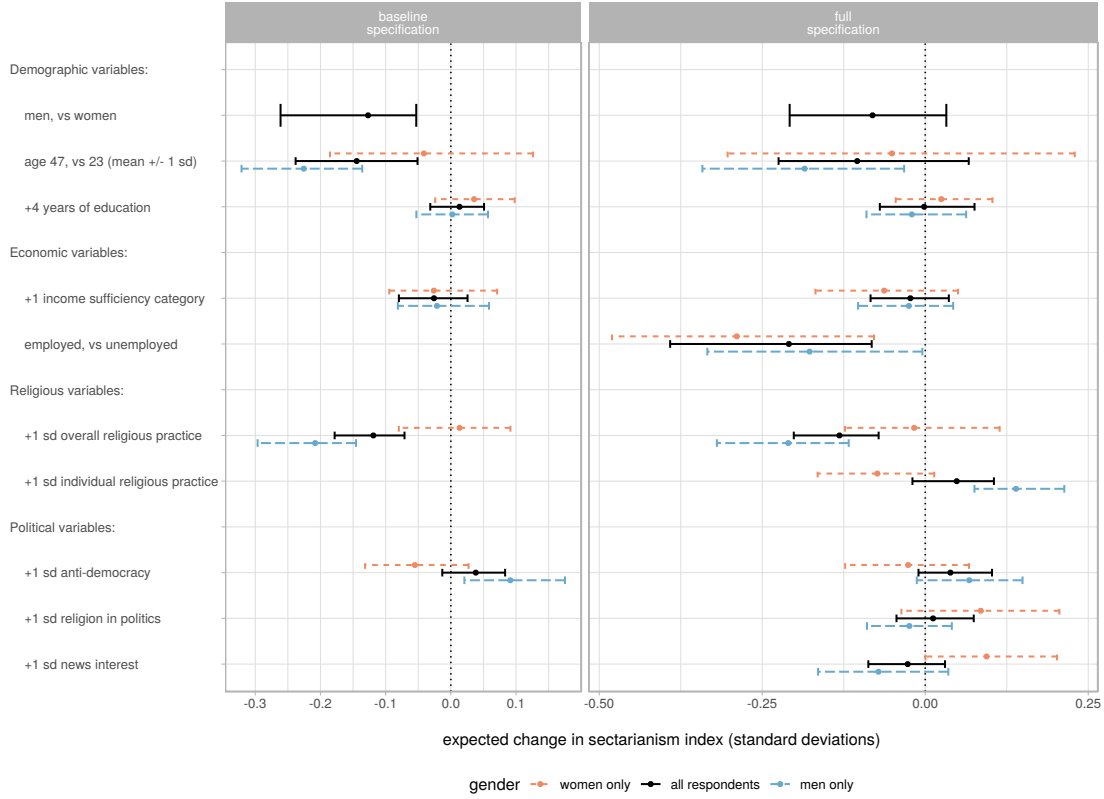


Figure 5: **Testing drivers of sectarian animosity among Iranian respondents.** The left (right) coefficient plot summarizes regression results from a specification in which single (multiple) measures correspond to each hypothesized cause. Points and errorbars are posterior means and 95% credible intervals after accounting for uncertainty from BPCA-based indices. Full specification includes province fixed effects. A corresponding coefficient plot for Iraqi pilgrims is given in Figure 3.

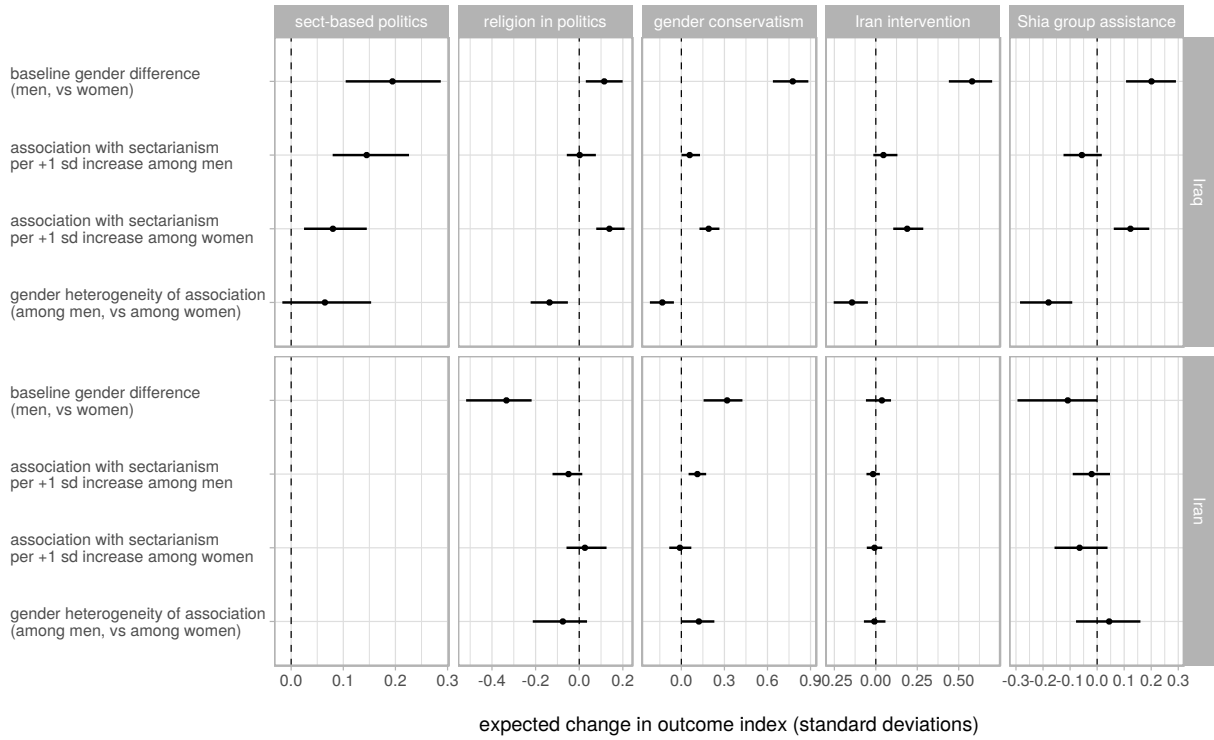


Figure 6: **Posterior means and 95% credible intervals for worldviews associated with sectarian animosity, by gender.** This plot summarizes regressions of each worldview on sectarian animosity, interacted with gender, along with demographic controls and province fixed effects (not depicted). Complete regression results are reported in Tables A23 to A27.

and in fact may serve as a better measure of that concept than questions about doctrinal orthodoxy, which are frequently open to interpretation and require a relatively high level of religious knowledge. Finally, we study two views that relate to a sense of belonging in a transnational Shi'a movement: (4) views about Iran's involvement in the domestic politics of other countries in the region; and (5) support for foreign Shi'a groups. Each attitude corresponds to a cluster of related survey questions, which are aggregated into overall BPCA-based indices; for each measure, component questions, loading plots, and diagnostics are given in Appendix A. Regression results are reported in Tables A23 to A27 and summarized in Figure 6, along with multiple-testing adjusted  $p$ -values in Table A32.

In Iraq, we find that sectarian individuals are more likely to hold a sect-oriented view of politics, such as the belief that out-group politicians are incapable of representing one's interests.<sup>13</sup> This is consistent with the democratic disillusionment hypothesis, in which a sense of disempowerment leads individuals to blame the out-group. This result is intuitive, but highlights the fact that citizens do not only use sect as merely a cognitive shortcut to assess whether political parties will deliver material benefits to one's own group. Rather, a political outlook in which religious sects compete for resources at the national level cannot be disentangled from direct animosity for out-group members at the individual level. This relationship is highly significant among both Iraqi men and women ( $p_{adj} \leq 0.002$  for both), with no evidence of gender heterogeneity (a 0.10 s.d. increase per s.d. increase in sectarian animosity, on average).

Surprisingly, all other attitudes that we examine follow a consistent but distinct pattern. We note three stylized facts that we argue, in Section 5, are consistent with an ongoing process of belief transmission as Iraqi women increasingly enter a male-dominated public sphere. First, across the board, we observe that

<sup>13</sup>We do not examine this association in Iran, where questions about sectarian politics simply do not apply.

Iraqi men and women hold divergent attitudes on average. Men are more likely to desire deeper involvement by religious leaders in political decision-making, hold more regressive views about gender roles and women’s rights, look more favorably upon Iranian foreign policy interventions across the region, and support external Shi’a groups. Second, in every case, Iraqi women who are more sectarian gravitate significantly toward the typical male position, even against their apparent interests—for example, women who are one s.d. more sectarian are substantially more conservative on gender issues (by 0.19 s.d.;  $p < p_{\text{adj}} < 0.001$ ). And third, shifts in the beliefs of Iraqi women cannot be explained by sectarian animosity alone, because there is no apparent relationship between out-group animosity and these attitudes in any other subgroup.<sup>14</sup>

After setting aside Iraqi women, we find little evidence to support widely held assumptions about the system of beliefs espoused by sectarian individuals. If sectarian individuals were motivated by doctrinal policy objectives (e.g., official political status for religious leaders) to seek Shi’a political power, then we would expect these individuals to advocate greater involvement of religion in politics (e.g. by seeking an active role for the religious elites in guiding policy). If sectarian animosity was a product of general social conservatism, we might expect it to be broadly associated with opposition to women’s rights, including access to education or labor force participation. And if antipathy toward Sunni individuals were a consequence of individuals increasingly aligning their identity along sect lines, then we would expect to see a corresponding weakening of national divisions. This might manifest as a shift toward viewing Iran as the standard-bearer for Shi’a interests across the region, thereby heightening agreement with Iranian foreign policies; alternatively, it could lead to empathy with Shi’a in other states, increasing support for Hezbollah or the Bahrain opposition parties. In fact, we observe none of these things.

## 5 Discussion and Conclusions

In this paper, we presented a structured evaluation of existing conceptualizations of sectarian animosity while attempting to lay the groundwork for further research on an increasingly important subject. We use a broad sample of devout individuals from widely varying contexts to examine prior claims about the causes and content of sectarian animosity. At the beginning of this piece, we presented three competing theories of sectarian animosity as transnationalism, religiosity, and ethnonationalism. Below, we discuss how our results corresponded to the observable implications of each approach and present an understanding of individual-level Shia sectarian animosity. A comparison of the Iraqi and Iranian contexts reveals some findings to be country-specific, while others reflect commonalities between the two countries that may generalize to the broader Shia world.

Despite the clear importance of the Saudi-Iranian conflict to geopolitics (Gause 2010; Mabon 2013), we find almost no support for an individual-level understanding of sectarian animosity as a transnational movement, either with or without Iran as its leader. Sectarian individuals were not more aware of sectarian conflicts, nor were they more supportive of Shi’a groups within these conflicts. On a personal level, they did not show more affinity for fellow Shi’a who were not co-nationals or co-ethnics. We also did not see evidence of a singular sectarian perspective either within our sample as a whole or among more sectarian individuals, highlighting the lack of a unified “sectarian mindset” across the two country contexts. Similarly, we did not see support for Iran as the leader of a transnational Shi’a identity, either through greater support for Iran or Iran’s international engagements among more sectarian Iraqis. In fact, more sectarian Iraqis were

---

<sup>14</sup>Exception being gender conservatism, with Iranian men who are one s.d. more sectarian holding more traditional views about gender roles by 0.11 s.d. ( $p < p_{\text{adj}} < 0.001$ ).

suggestively less likely to support international Shi'a causes.

Rather, sectarian individuals tended to hold attitudes resembling those of ethnonationalists. In particular, we find that they were more likely to prefer sectarian political parties. They were also more critical of (non-sectarian) democratic institutions, a marker of the democratic disillusionment that often underlies ethnonational movements. Similarly, various drivers often associated with ethnicity and ethnonationalism appear to hold within this sectarian context. In our survey, increased intergroup contact is associated with lower levels of sectarian animosity (Allport 1968; Emerson et al 2006). Real economic concerns are closely tied sectarian animosity, much like ethnic attitudes (Collier 2000; Kalyvas 2008). Exposure to violence may also be associated with greater sectarian animosity, as with ethnic polarization (Brown 1997; Fearon and Laitin 2000). Moreover, sectarian individuals tend to support traditional gender norms, a feature of ethnonational movements in a variety of other contexts (Albanese 2001; Ashe 2007).

The relationship between religion and sectarian animosity is less straightforward. Sectarian animosity is clearly not a manifestation of anti-hereticism, and in fact greater religiosity is strongly associated with less sectarian hatred among men. We proposed two mechanisms, doctrine and socialization, through which religion might influence sectarian animosity. This moderating effect is consistent with a doctrinal effect, as the Ayatollahs emulated by the majority of our sample explicitly promote sectarian unity.

However, among women we see a highly significant opposite effect, with more religious practice being associated with greater sectarian animosity. We argue that this differential effect is due to the second mechanism, which we term religious socialization—the transmission of (potentially non-religious) norms through religious practice—which is most salient among individuals who would otherwise be excluded from the broader social sphere. For many Iraqi women, religious practice represents one of the few opportunities to interact with society more broadly, whether through attending Friday prayers, participating pilgrimages like Arba'een, or listening to religious teachings on political or social topics.

Five primary pieces of evidence point to the importance of religious socialization in explaining gender differences. First, women who engage with the public sphere through other channels—such as news consumption or work—also diverge in their sectarian animosity, suggesting that differences are not the result of gender itself but rather the different socialization experiences of men and women in Iraqi society. Second, the role of religious practice is strongly magnified among women who participate in communal practice, where socialization is most likely to occur, whereas it diminishes for those that practice in individual ways. Third, religiously practicing women tend to lie much closer to the male average in terms of sectarian animosity, consistent with an embrace of mainstream social norms, rather than being spurred toward extreme levels of sectarian animosity by religious teachings. Fourth, with increasing sectarianism, women also shift toward average male worldviews on a range of other issues, not all of which are intuitively related. And finally, we do not see similar patterns in Iran, where after 1979 women have traditionally held a larger place in the public sphere. Because Iranian women are already more involved in mainstream social and political discourses, it stands to reason that religious socialization will play a weaker role.

Taken together, these results indicate that the sectarian animosity of Iranian and Iraqi individuals operates much as ethnonationalism does, both in its antecedents and the decidedly national-level views that accompany it. Yet the inextricably religious nature of sect adds an additional layer of complexity—at a minimum through the effects of religious socialization, if not through supernatural beliefs. As a result, sectarian animosity in Iraq touches an even broader population than the young males that traditionally form the backbone of ethnonationalist movements (Bucholtz 2002; Hromadžić 2015).

These findings suggest a number of important implications. First, our work underscores the fact that



higher-level drivers of sectarian animosity do not always directly translate to individual-level motivations. For example, the transnational competition between Iran and Saudi Arabia, while central to geopolitical understandings of sectarian animosity, has not trickled down to an individual-level understanding of sectarian animosity as a transnational issue in Iran or Iraq. Second, we demonstrate both the domestically oriented nature of sectarian animosity and its parallels to ethnonationalism. Thus, a rich literature on ethnicity and ethnic conflict offers a useful lens for understanding sect in the Middle East, though the presence of uniquely religious attributes suggests the need for caution in drawing equivalences. Finally, our results demonstrate that religious socialization influences other beliefs of political and social interest in the Middle East, especially among women. Distinguishing this effect of socialization from doctrine is vital to a clearer understanding not just of sectarian animosity, but religion in the Middle East more broadly. More work can be done to examine how religious socialization integrates into broad existing literatures on gender, politics, and society in Middle Eastern contexts.

We hope that this work establishes the groundwork for future examination of individual-level sectarian animosity in the Middle East. Further research on this topic remains essential not only to developing more effective national and international policies, but also for developing a clearer understanding of the interaction between religion, ethnicity, and nationalism in a broader range of contexts.

# A Online Appendix

## Survey Sampling

One of our primary objectives was to obtain a sample that reflected the geographic distribution of Iraqi and Iranian Shi’a *in general*. However, geographic targeting of Iraqi respondents was complicated by limited data availability. The country has not held a census since 1997, other surveys that have targeted the country do not claim to provide a representative sample, and mass displacement since the 2000s have invalidated most prior metrics. Therefore, we sampled pilgrims according to the number of Shi’a politicians in the Iraqi parliament, the Council of Representatives (COR).

The COR has a total of 328 seats across Iraq’s 18 governorates. The allocation of seats is based on each governorate’s estimated population size. We identified the sect of the parliamentarians holding these seats, and used the Shi’a seats as a metric for the Shi’a proportion of the population in that area.<sup>1</sup> Our sample successfully meets this target. Table A1 indicates that across all provinces, the absolute difference between the region’s proportion of Shi’a-held seats and their proportion in the sample was no more than 0.5 percentage points.<sup>2</sup>

Better data availability in Iran made our sampling procedure more direct. Because the vast majority of the population is Shi’a, we use the regional population breakdown from the most recent 2011 census as a proxy for Shi’a residents. According to the 2011 census data from Iran indicate that 99.4% of the population is Muslim. Though they do not differentiate by sect, Muslim Iranians are overwhelmingly Shi’a. There are also some Sunni, Jewish, Zoroastrian, and Christian residents. The Iranian sample also correlates closely with the census regional distribution, with the greatest overrepresentation being from Tehran (19%) and under-representation from Esfahan (12%).

We further validate the sampling strategy using mobile data aggregated by Safegraph, a location data clearinghouse, and provided in an anonymized form spanning September to December 2017. Each record in this dataset corresponds to a device “ping,” its location at a particular moment, and includes entries for latitude, longitude, time, the accuracy of the estimated location, and an anonymous device identifier assumed to represent an individual. We compute accuracy-weighted median weekly positions for each individual in the dataset, then subset to individuals that can be consistently localized to an administrative district for at least four weeks in the observation period (“district residents”, numbering nearly 310,000).<sup>3</sup> We further define a “neighborhood” corresponding to the 10-kilometer radius around each survey respondent’s geocoded home location and similarly identify “neighborhood residents” in the mobile location data. The number of tracked individuals in this neighborhood—the tracked mobile density, which is closely related to population density and mobile device ownership—is used as a proxy for urbanization and development, which are otherwise difficult to measure on a neighborhood level.

The period used for pilgrimage participation tracking, 2–10 November 2017, includes the actual Arba’een dates (9–10 November), as well as the preceding week in which pilgrims begin to arrive from their travels. Because pings may not be available for each individual-day for a number of reasons, we scale an area’s

---

<sup>1</sup>The sect of parliamentarians was identified using their party affiliation as well as their name. Some governorates are almost purely Shi’a. This includes Dhiqar, Najaf, Wasit, Karbala, Qadisiyya, Missan and Muthanna. Other governorates, such as Baghdad and Basra, are Shi’a majority; still others, such as Deyala, are split between Sunni and Shi’a representatives. Salaaddin, Ninewa, and Kirkukko are primarily Sunni, and Anbar is exclusively Sunni. Erbil, Suleimania, and Dhuk are Kurdish governorates with very limited Shi’a representation.

<sup>2</sup>The greatest over-representation was in the province of Ninewa, where we surveyed by 0.3 percentage points more than intended, and the most under-represented was in Najaf, which comprised 6% of our sample versus 6.4% of Shi’a-held seats.

<sup>3</sup>Total smartphone ownership is estimated at 20%; the group for which we are able to identify home districts is roughly 0.8% of the population of Iraq, or 4% of smartphone owners.

GOVERNORATE	% SHI'A SEATS	% SURVEYED
Anbar	0.00	0.04
Babil	7.98	6.10
Baghdad	30.32	25.64
Basra	12.23	13.98
Dewaneya	5.85	5.27
Dhiqar	10.11	10.79
Dhuk	0.00	0.00
Diala	3.72	2.61
Erbil	0.00	0.12
Karbala	5.85	5.60
Kirkuk	0.00	0.37
Missan	5.32	5.23
Muthanna	3.72	1.95
Najaf	6.38	11.83
Ninewa	1.60	2.86
Salahaddin	1.06	0.83
Suleimania	0.00	0.00
Wasit	5.85	6.56

Table A1: **Iraq by Governorate: Shi'a Held Seats and Percentage Surveyed**

pilgrim counts by the number of residents that are observed anywhere in Iraq during the same period (55% of tracked individuals in aggregate) to obtain district pilgrimage ratios. The findings from this analysis are reported in Figure 1. Figure A1 further shows that the number of survey respondents from a region is closely tied to the actual number of tracked pilgrims, despite the use of COR-based quotas rather than random sampling. However, we correctly undersample Karbala locals, who are heavily overrepresented at the pilgrimage relative to the overall Shi'a Iraqi population.

The similarity in district-level Shi'a pilgrimage rates in Figure 1 suggests that religious devotion does not vary dramatically by region. While these conclusions are in part based on technologically savvy individuals that select into our mobile location dataset, we argue that differences in pilgrimage behavior between tracked individuals and the general population are unlikely to correlate heavily with geographic distance. In Iran, we do not have access to comparable data to assess the role of geography in pilgrimage attendance. While it might seem that the cost of the pilgrimage would deter less-devout Shiites from far-away parts of Iran, in practice, substantial government subsidies help offset the difference in costs.

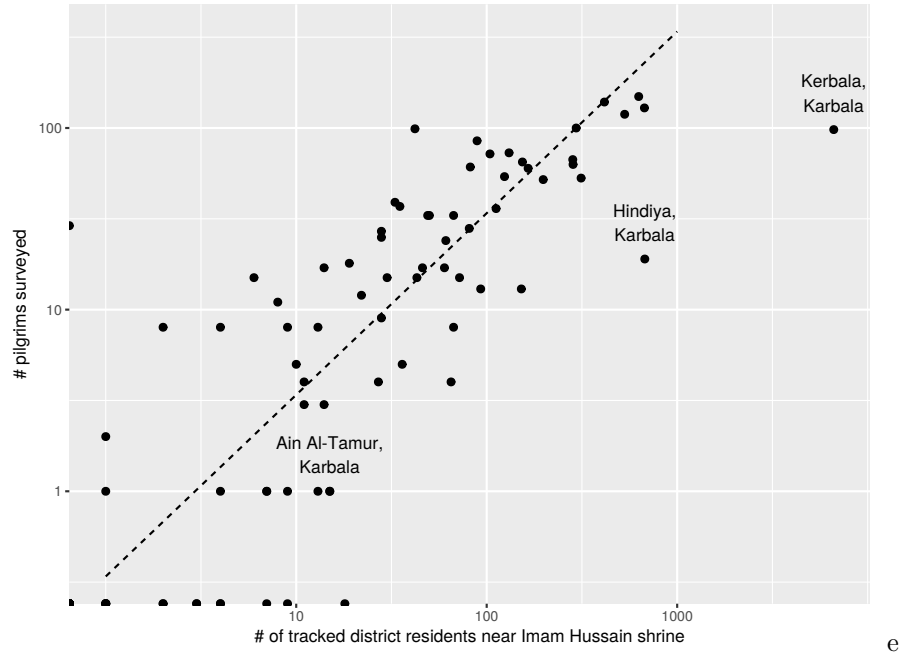


Figure A1: **District participation in Arba'een as proxied by mobile tracking data versus number of survey respondents per district.** After excluding Karbala, district-level counts have a Pearson correlation coefficient of 0.87, or 0.97 when aggregating by province.

## Respondent Summary Statistics

		Pilgrim Sample	ArabBarometer	World Bank
GENDER	Male	45.90	50.00***	49.6***
AGE	18-30	43.70	45.30**	42.6***
	31-49	42.50	37.90***	40.2***
	50+	14.80	16.80***	17.2**
EDUCATION	None	26.00	8.60***	16.5**
	Primary	30.70	28.10***	52.2***
	Middle School	23.20	26.10***	14.7***
	High School	16.00	23.20***	12.6***
	College and Above	4.00	12.20***	3.9***
INCOME	Significant difficulty meeting needs	16.80	20.30***	Unavailable
	Some difficulty meeting needs	34.60	32.70***	Unavailable
	Covered expenses and no notable difficulty	37.80	34.70***	Unavailable
	Covered expenses and saved	10.80	9.70***	Unavailable
<i>t-test p-value of difference with our sample: *0.1 level, **0.05 level, ***0.01 level</i>				

Table A2: Iraq Comparisons

	Iraq	Iran
Male	0.46	0.60
Employment	0.45	0.61
Age	34.84	36.96
	(11.71)	(12.45)
Income Sufficient	2.43	2.82
	(0.89)	(0.87)
Years of Education	7.94	11.03
	(5.52)	(4.83)

Table A3: **Pilgrim Sample Summary Statistics by Country.** Standard deviations are reported in parentheses for non-binary variables.

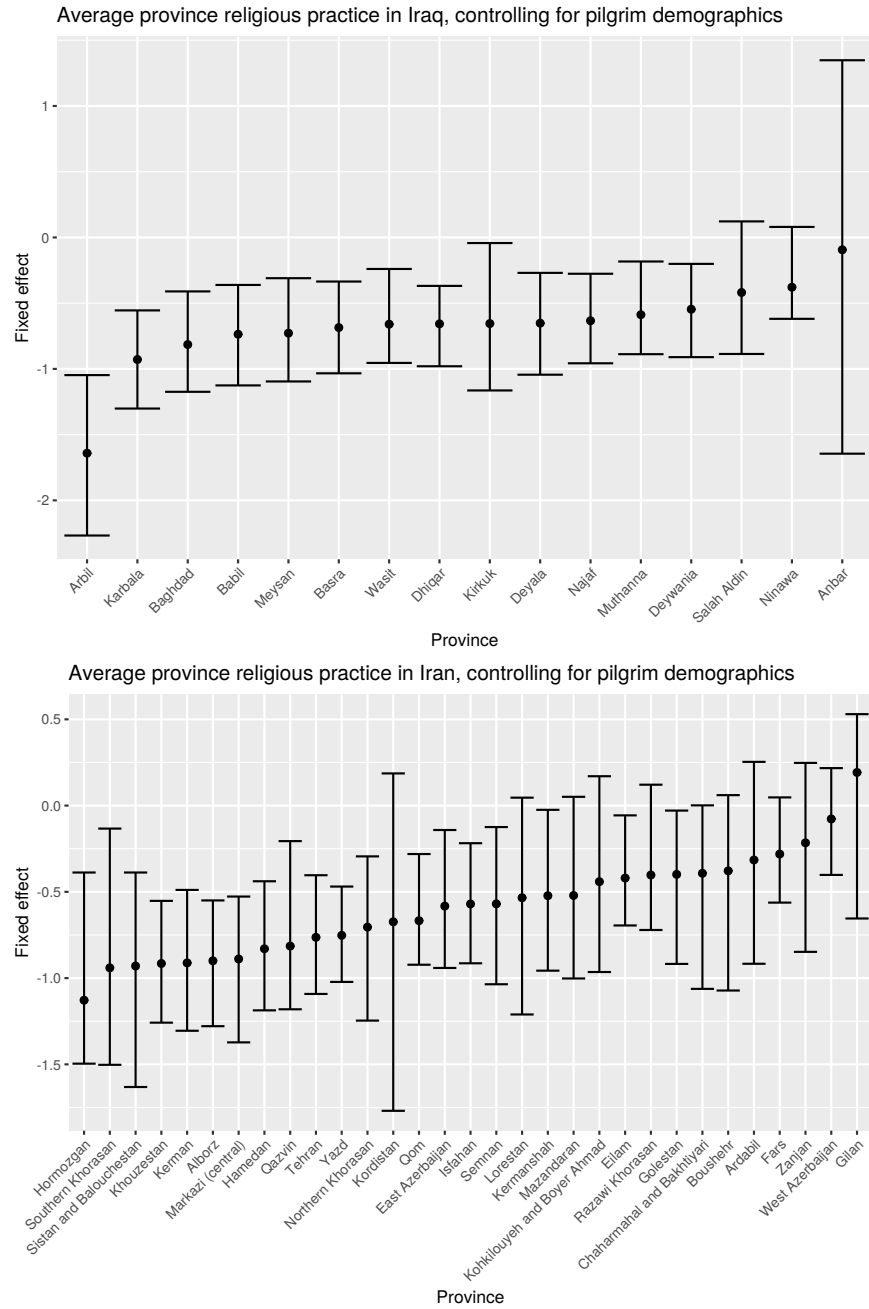


Figure A2: **Comparison of overall religious practice (BPCA first dimension) across regions.** Regression fixed effect coefficients (from models that omit the intercept) reflect each region's average value after controlling for gender, age (linear and quadratic), education, and income sufficiency. Coefficients are sorted by size, producing a natural upward slope, but regions do not appear to differ substantially in average religiosity.

## Survey Non-Response

Overall survey noncompletion rates among respondents were very low. However, non-response on individual questions showed significant variation. Non-response for all questions within the survey was as follows.

The mean (median) non-response for Iraqi respondents was 13.8% (6.4%). Questions with high levels of non-response included those that asked about the opinions of older generations, such as their fathers, on religious, political and gender issues (non-response rate of 45% in Iraq); and questions that focused on regional politics and Iran’s foreign policy involvement (non-response rate of 28% in Iraq).

Disaggregating non-response by gender provides additional insight into topical sensitivity. Overall, Iraqi women had the highest average non-response rate, at 7.4%, with Iraqi men at 4.9%. Yet interestingly, women showed lower rates of non-response than men for questions that dealt with gender.

These gender differences are especially pronounced when disaggregating non-response into specific categories—“don’t know” versus “no response”. In general, Iranian men were more likely than Iranian women to state that they “don’t know.” On specific issues, Iraqi women were more likely to state that they “don’t know” to questions about democracy, regional politics, and the United States.

While the distinction between these categories is not always observable, enumerators sought to gauge the nature of non-response by either probing directly or making their best assessment. Broadly speaking, a “don’t know” outcome is relatively more likely when participants genuinely did not know a response. A “no response” answer was more likely to reflect sensitivities around the question, when participants wished to avoid discussing it.

We anticipated that non-response would vary by enumerator, as enumerator assignments to different mawakib produced correlations with respondents’ home regions. Substantive differences were small, with the largest difference between enumerator average and overall average being four percentage points and the standard deviation of overall enumerator averages being 2.1%. When we analyzed variation in response time by enumerator, 90% of enumerators were within one standard deviation of the enumerator response time mean. When we rerun our results with enumerator fixed effects, we find minimal impact on overall results.<sup>4</sup>

Seven enumerators have non-response rates that are statistically significantly higher than average (four Farsi and one Arabic), and fourteen enumerators had non-response rates that were statistically significantly lower than average (three Farsi and four Arabic). However, differences were substantively small, with average non-response being 3% and the most outlying enumerator recording a non-response rate of 7%. Analyses that remove these outlying enumerators do not appear to differ.

---

<sup>4</sup>We, however, cannot make gender, country, and many regional comparisons when including enumerator fixed effects due to power issues.

## Iraqi and Iranian Sample Comparisons

Within our survey, the differences between the Iraqi and the Iranian samples appeared to be largely reflective of differences between the two countries as a whole. As we show in Table A3, Iranian respondents were significantly wealthier and more educated than Iraqi respondents, as well as more likely to be employed.<sup>5</sup> One concern in comparing the two nationalities is that the greater cost to travel from Iran means that Iranians were more religious than their Iraqi counterparts, compared to their country averages. While Iranians did engage in more communal religious practice, Iraqis engaged in more individual practice, indicating that while the expression of religiosity differs across national boundaries, both groups engage with their religion to a similar extent. The modes of travel were also similar between the two groups. In both, individuals were most likely to travel with their family than friends, with the vast majority of women traveling with their families (see Table A4 and Table A5 in Appendix). Iraqis were much more likely to have been to Karbala before, which is unsurprising given the lesser travel constraints available to them. Iranians, however, were more likely to have gone on other pilgrimages, including the Hajj, and unsurprisingly significantly more likely to go on pilgrimages in Iran such as Masshad (see Table A6 and Table A7). While not conclusive, we find no evidence that Iraqis and Iranians differ significantly in how devout they are compared to their countries as a whole.

## Pilgrimage Travel and History for Iraqi and Iranian Respondents

Part of the concern about comparing Iranians and Iraqis as representative of their countries as a whole is that the pilgrimage implies greater opportunity costs for Iranians than their Iraqi counterparts, because of the greater amount of travel. The tables below (Table A4, Table A5, Table A6, and Table A7) highlight that though Iraqis were more likely to travel to pilgrimages in Iraq, Iranians were similarly likely to travel to pilgrimages in Iran. They also had relatively similar probability of travelling with different companions, whether family, friends, town, in a group, or alone.

	Female	Male
Family	0.81	0.30
Friends	0.11	0.61
Town	0.06	0.10
Group	0.03	0.01
Alone	0.04	0.13

Table A4: **Iraq Travel Companions**

<sup>5</sup>Only 9% of Iranians lacked any formal education, as opposed to 26% of Iraqis. 69% of Iranians across all age groups had completed at least a high school education, as opposed to only 20% of Iraqis. Around 65% of Iranian pilgrims stated that their household income covered their expenses, with over 20% stating that they were also able to save. Only 45% of Iraqi respondents stated that their household income covered their expenses. Less than 50% of Iraqi pilgrims had a job, as opposed to 60% of Iranian pilgrims. This result is primarily driven by lower employment among Iraqis below age 30, who are 10% less likely to have a job than their Iranian counterparts. These differences are statistically significant at the  $p < 0.01$  level.



	Female	Male
Family	0.76	0.29
Friends	0.15	0.58
Town	0.05	0.12
Group	0.02	0.06
Alone	0.07	0.10

Table A5: **Iran Travel Companions**

	Female	Male
Karbala: for Holiday	0.91	0.78
Karbala: for Shaaban	0.50	0.70
Karbala: for Arba'eeniya	0.97	0.99
Karbala: for Ashoura	0.31	0.53
Hajj	0.03	0.04
Omra	0.13	0.07
Najaf	0.99	0.97
Khadmiya	0.86	0.90
Massouma	0.33	0.31
Masshad	0.33	0.32
Sayeda Zainab	0.18	0.13
Samara	0.52	0.65

Table A6: **Iraq Prior Pilgrimages**

	Female	Male
Karbala: for Holiday	0.26	0.33
Karbala: for Shaaban	0.08	0.04
Karbala: for Arba'eeniya	0.58	0.51
Karbala: for Ashoura	0.10	0.14
Hajj	0.17	0.11
Omra	0.23	0.14
Najaf	0.86	0.73
Khadmiya	0.65	0.63
Massouma	0.95	0.94
Masshad	0.96	0.95
Sayeda Zainab	0.29	0.18
Samara	0.39	0.36

Table A7: **Iran Prior Pilgrimages**

	Dependent variable: Repeat participation, vs first-time	
	Iraq (1)	Iran (2)
Constant	0.990*** (0.097)	−0.215 (0.105)
Male	−0.022* (0.013)	−0.045** (0.029)
Age	0.002 (0.004)	0.026*** (0.005)
Age <sup>2</sup>	−0.00004 (0.00005)	−0.0003*** (0.0001)
Education (years)	−0.001 (0.001)	−0.003 (0.003)
Income sufficiency	0.011 (0.009)	0.094*** (0.014)
Anti-democracy	−0.0003 (0.007)	0.015 (0.014)
Religious practice (overall)	0.030*** (0.009)	0.070*** (0.016)
Sectarianism	−0.014** (0.007)	0.017 (0.014)
Province FE	Yes	Yes
Observations	1,860	1,332
R <sup>2</sup>	0.057	0.117
<i>Note:</i>		*p<0.1; **p<0.05; ***p<0.01

Table A8: **Selection into pilgrimage** Regression results in which a respondent’s binary outcome of 1 indicates prior participation (i.e., at least one prior visit to Karbala during Arba’een) and a 0 indicates first-time participation. We argue that differences between longtime and first-time participants are informative about differences between participants and nonparticipants (at a minimum, in their signs). Results suggest that highly religiously practicing individuals are more likely to attend, as expected. Wealthier Iranians are also more able to participate—an unsurprising finding, given the greater commitment involved, although substantial Iranian government subsidies help offset monetary costs. However, we do not find that sectarian individuals pilgrimage more: If anything, the reverse is true among Iraqis.

## Evolution from Father’s Emulation

To better understand the evolution of religious practices, we asked each respondent not only about their own beliefs and emulation authority (the ayatollah whose teachings they follow), but also those of their fathers. Differences in the responses of male respondents, relative to their assessment of their fathers’ views, shed light on shifting power bases of prominent leaders. After the death of Ruhollah Khomeini in 1989, two-thirds of his followers’ households shifted to Iranian Supreme Leader Khamenei, with the remainder split between Shirazi and Sistani. In contrast, the passing of Mohammad Va’ez Abaee-Khorasani in 2004 led to far greater fractionalization, with only half of his households shifting allegiance to the Supreme Leader. Moreover, the current generation of pilgrims is significantly more open to the idea of emulating more than one ayatollah—a further decentralization of religious authority. These intergenerational differences also shed light on societal shifts beyond the religious realm. Notably, the gender beliefs of Iraqi and Iranian men appear to have liberalized markedly. We find that men are more likely to support equal rights and recognize the importance of university education for women, relative to their retrospective evaluation of their father’s beliefs.

## Comparison to Other Survey Sources

While Iraq has not had a census since 1997, there have been other large-scale public opinion and development surveys, notably the ArabBarometer<sup>6</sup> and the 2012 World Bank Living Standards Measurement Survey (LSMS).<sup>7</sup> Because these surveys encountered similar challenges of working in a conflict environment with significant recent displacement, we cannot use them to gauge the representativeness of the sample. Additionally, neither of these surveys asks respondents about their sect, so it should be noted that we are comparing our sample of devout Shi’a to samples that include Sunni, Shi’a, and Kurdish respondents. Table A2 compares our sample to the ArabBarometer and World Bank data within Iraq. Our respondents are slightly more concentrated in the 31-to-49 age range, lie between ArabBarometer and World Bank respondents in terms of education, and report being more financially secure than the ArabBarometer respondents. There is limited overlap with our survey’s questions on political, social, and religious topics.

## Bayesian Principal Component Procedure

In this section, we provide details of the Bayesian PCA procedure. The generative model is as follows:

$$\begin{aligned} \mathbf{x}_i &\sim \mathcal{N}(\mathbf{0}, \mathbf{I}) \\ \boldsymbol{\epsilon}_i &\sim \mathcal{N}(\mathbf{0}, \sigma^2 \mathbf{I}) \\ \mathbf{t}_i &= \mathbf{W}\mathbf{x} + \boldsymbol{\mu} + \boldsymbol{\epsilon}_i. \end{aligned}$$

$\mathbf{x}$  and  $(\mathbf{t} \mid \mathbf{x})$  are both multivariate Gaussian-distributed, and their joint distribution is also multivariate

---

<sup>6</sup>The ArabBarometer has had two waves that included Iraq 2010–2011 and 2012–2014. The most recent was used for this analysis.

<sup>7</sup>The ArabBarometer survey seeks to provide data on political attitudes in the Middle East. The most recent wave that included Iraq occurred in 12 countries in the Middle East: Algeria, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Palestine, Sudan, Tunisia, and Yemen. We use both the Iraq-specific data and the 12-country data as different points of comparison against our sample. The World Bank LSMS partners with national statistical offices to design and implement multi-topic household surveys, with the most recent wave in 2012.

Gaussian. Their covariance is given by

$$\begin{aligned}
\text{Cov}(\mathbf{t}, \mathbf{x}) &= \mathbb{E}[\mathbf{t}\mathbf{x}^\top] - \mathbb{E}[\mathbf{t}]\mathbb{E}[\mathbf{x}^\top] \\
&= \mathbb{E}[(\mathbf{W}\mathbf{x} + \boldsymbol{\mu} + \boldsymbol{\epsilon})\mathbf{x}^\top] \\
&= \mathbf{W}\mathbb{E}[\mathbf{x}\mathbf{x}^\top] + \boldsymbol{\mu}\mathbb{E}[\mathbf{x}^\top] + \mathbb{E}[\boldsymbol{\epsilon}\mathbf{x}^\top] \\
&= \mathbf{W}
\end{aligned}$$

noting that  $\mathbb{E}[\mathbf{x}] = \mathbf{0}$  and  $\mathbb{E}[\mathbf{t}] = \boldsymbol{\mu}$ . The joint distribution is then

$$\begin{bmatrix} \mathbf{x} \\ \mathbf{t} \end{bmatrix} \sim \mathcal{N}\left(\begin{bmatrix} \mathbf{0} \\ \boldsymbol{\mu} \end{bmatrix}, \begin{bmatrix} \mathbf{I} & \mathbf{W}^\top \\ \mathbf{W} & \boldsymbol{\Sigma} \end{bmatrix}\right)$$

We now solve for  $\boldsymbol{\Sigma}$ . The joint log density can be expressed, up to a normalizing constant, as

$$\ln f(\mathbf{x}, \mathbf{t}) = -\frac{1}{2} \left( \begin{bmatrix} \mathbf{x} \\ \mathbf{t} \end{bmatrix} - \begin{bmatrix} \mathbf{0} \\ \boldsymbol{\mu} \end{bmatrix} \right)^\top \left( \begin{bmatrix} \mathbf{I} & \mathbf{W}^\top \\ \mathbf{W} & \boldsymbol{\Sigma} \end{bmatrix} \right)^{-1} \left( \begin{bmatrix} \mathbf{x} \\ \mathbf{t} \end{bmatrix} - \begin{bmatrix} \mathbf{0} \\ \boldsymbol{\mu} \end{bmatrix} \right) + C.$$

which, after blockwise inversion, simplifies to

$$\begin{aligned}
-2 \ln f(\mathbf{x}, \mathbf{t}) &= \mathbf{x}^\top (\mathbf{I} + \mathbf{W}^\top (\boldsymbol{\Sigma} - \mathbf{W}\mathbf{W}^\top)^{-1} \mathbf{W}) \mathbf{x} \\
&\quad - (\mathbf{t} - \boldsymbol{\mu})^\top (\boldsymbol{\Sigma} - \mathbf{W}\mathbf{W}^\top)^{-1} \mathbf{W}^\top \mathbf{x} \\
&\quad - \mathbf{x}^\top \mathbf{W}^\top (\boldsymbol{\Sigma} - \mathbf{W}\mathbf{W}^\top)^{-1} (\mathbf{t} - \boldsymbol{\mu}) \\
&\quad + (\mathbf{t} - \boldsymbol{\mu})^\top (\boldsymbol{\Sigma} - \mathbf{W}\mathbf{W}^\top)^{-1} (\mathbf{t} - \boldsymbol{\mu}) + C.
\end{aligned} \tag{1}$$

Equivalently, the joint density can be written as

$$\begin{aligned}
\ln f(\mathbf{x}, \mathbf{t}) &= \ln f(\mathbf{t} | \mathbf{x}) + \ln f(\mathbf{x}) \\
&= -\frac{1}{2} (\mathbf{t} - \mathbf{W}\mathbf{x} - \boldsymbol{\mu})^\top (\sigma^2 \mathbf{I})^{-1} (\mathbf{t} - \mathbf{W}\mathbf{x} - \boldsymbol{\mu}) - \frac{1}{2} \mathbf{x}^\top \mathbf{I}^{-1} \mathbf{x} + C \\
-2 \ln f(\mathbf{x}, \mathbf{t}) &= \frac{1}{\sigma^2} (\mathbf{t} - \mathbf{W}\mathbf{x} - \boldsymbol{\mu})^\top (\mathbf{t} - \mathbf{W}\mathbf{x} - \boldsymbol{\mu}) + \mathbf{x}^\top \mathbf{x} + C \\
&= \frac{1}{\sigma^2} \mathbf{x}^\top \mathbf{W}^\top \mathbf{W} \mathbf{x} - \frac{1}{\sigma^2} (\mathbf{t} - \boldsymbol{\mu})^\top \mathbf{W} \mathbf{x} - \frac{1}{\sigma^2} \mathbf{x}^\top \mathbf{W}^\top (\mathbf{t} - \boldsymbol{\mu}) \\
&\quad + \frac{1}{\sigma^2} (\mathbf{t} - \boldsymbol{\mu})^\top (\mathbf{t} - \boldsymbol{\mu}) + \mathbf{x}^\top \mathbf{x} + C
\end{aligned} \tag{2}$$

Rearranging terms, it can be seen that equations 1 and 2 are identical when  $(\boldsymbol{\Sigma} - \mathbf{W}\mathbf{W}^\top)^{-1} = \frac{1}{\sigma^2}$ , so that  $\boldsymbol{\Sigma} = \mathbf{W}\mathbf{W}^\top + \sigma^2 \mathbf{I}$ .

It follows from properties of the multivariate normal distribution that  $\mathbb{E}[\mathbf{x} | \mathbf{t}] = \mathbf{W}^\top \boldsymbol{\Sigma}^{-1} (\mathbf{t} - \boldsymbol{\mu})$ , as stated in Section 3.4. Similarly, given partially observed survey responses  $\mathbf{t}_{i,r}$ , it can be seen that the distribution of plausible values for the missing data,  $\mathbf{t}_{i,m}$ , follows

$$\mathcal{N}(\boldsymbol{\mu}_m + \mathbf{W}_m \mathbf{W}_r' (\mathbf{W}_m \mathbf{W}_m' + \sigma^2 \mathbf{I})^{-1} (\mathbf{t}_{i,r} - \boldsymbol{\mu}_r), \mathbf{W}_m \mathbf{W}_r' (\mathbf{W}_m \mathbf{W}_m' + \sigma^2 \mathbf{I})^{-1} \mathbf{W}_r \mathbf{W}_m'),$$

where subscript  $r$  ( $m$ ) denotes submatrices corresponding to recorded (missing) variables.

We account for uncertainty due to both missingness and finite data through a Markov chain Monte-Carlo

procedure that alternatingly samples (1) plausible missing responses from their conditional distribution, given observed responses and the current BPCA parameters; and (2) BPCA parameters from a Laplace approximation to the complete-data posterior,  $\mathcal{N}\left(\left[\hat{\boldsymbol{\mu}}^\top, \text{vec}(\hat{\mathbf{W}}), \hat{\sigma}^2\right], -\mathbf{H}^{-1}\right)$ , with  $\mathbf{H} = \nabla_{\boldsymbol{\mu}, \mathbf{W}, \sigma^2}^2 \frac{1}{2} \ln |\boldsymbol{\Sigma}| + \frac{1}{2}(\mathbf{t} - \boldsymbol{\mu})' \boldsymbol{\Sigma}^{-1}(\mathbf{t} - \boldsymbol{\mu})$ . Rotation invariance is handled by a Procrustes transformation of the sampled loading matrix back to the maximum likelihood loading matrix estimate, which is computed by the expectation-maximization analogue of the iterative procedure described above.

All regressions that utilize BPCA variables, whether individually or in combination, fully incorporate their uncertainty by taking a single draw from the BPCA posterior—a vector representing each respondents’ position on the latent dimension of interest—and conducting a Bayesian linear regression. For each regression, we draw 10 samples from the multivariate posterior on regression coefficients. This process is repeated 1,000 times, for a total of 10,000 posterior draws, which are then used to compute posterior means, symmetric 95% credible intervals, and Bayesian  $p$ -values based on (two-sided) posterior tail probability mass.

## Bayesian Principal Component Analysis: Survey Questions and Results

Here, we report the precise questions used in the construction of the analyzed BPCA-based indices: religious practice, anti-democracy attitudes, religion and politics, gender conservatism, news consumption, Iran interventions, sectarian politics, assistance to Shi’a groups. Subsequent plots depict the principal components and uncertainty for each battery.

Before conducting BPCA, we convert component questions to an equally-spaced numeric scale, flip questions so that more positive values have roughly the same meaning, and then standardize each question. The estimated latent positions constructed by this procedure are also rescaled for interpretability so that a one-unit increase corresponds to a standard deviation in the outcome.

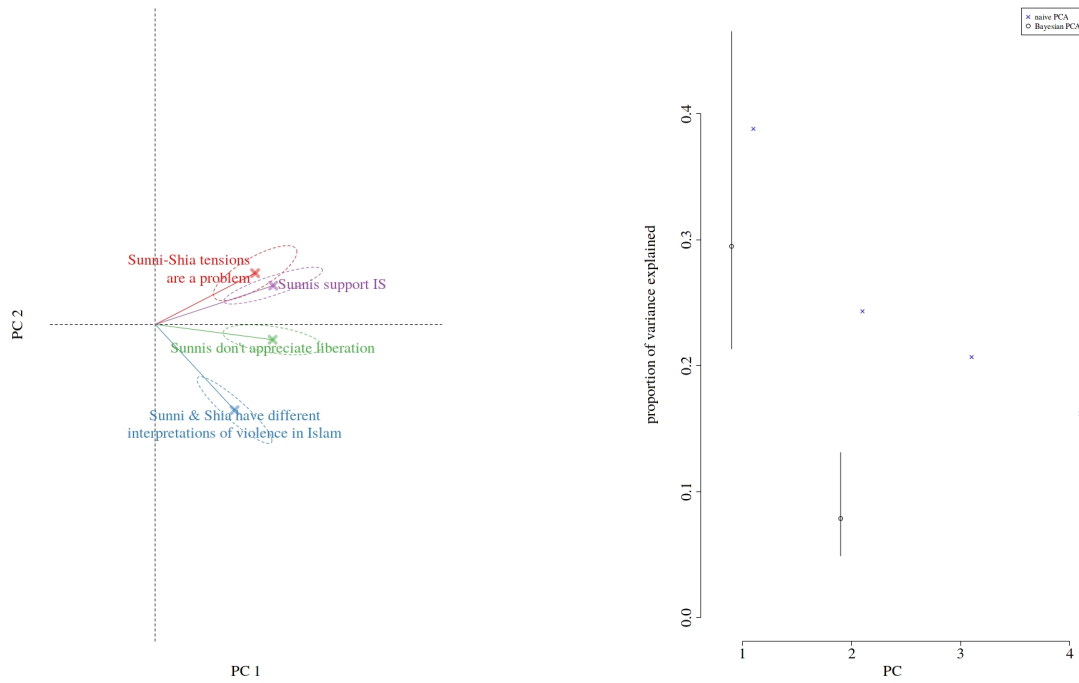


Figure A3: **Sectarian animosity Battery of Questions.** Posterior distributions of question loadings on first and second Bayesian principal components. Overall Cronbach's  $\alpha = 0.48$ .

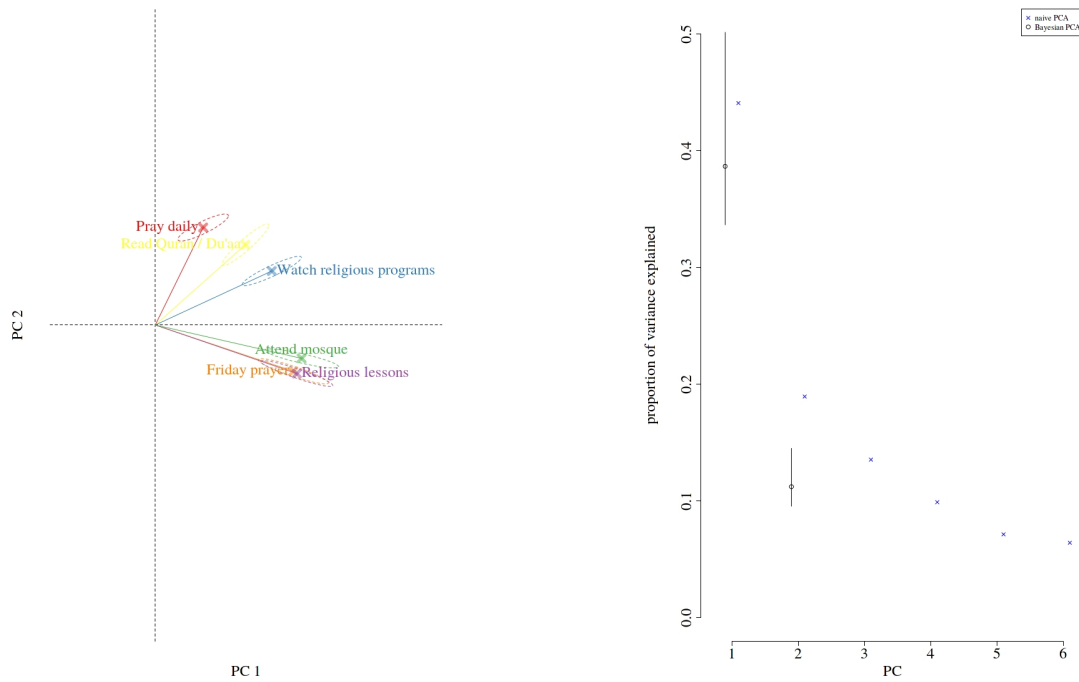


Figure A4: **Religious Practice Battery of Questions.** Posterior distributions of question loadings on first and second Bayesian principal components. Cronbach's  $\alpha = 0.72$ .

Question	Responses	Iraq Proportion	Iran Proportion
How often do you...			
Attend Friday prayers/womens prayer	At least once a day	0.06	0.25
	At least once a week	0.18	0.16
	A few times a month	0.13	0.11
	At most once a month	0.12	0.28
	Never	0.5	0.2
How often do you...			
Attend religious lessons in the mosque	At least once a day	0.09	0.47
	At least once a week	0.12	0.29
	A few times a month	0.12	0.05
	At most once a month	0.09	0.1
	Never	0.57	0.08
How often do you... Visit a mosque	At least once a day	0.17	0.63
	At least once a week	0.25	0.21
	A few times a month	0.17	0.04
	At most once a month	0.15	0.07
	Never	0.26	0.04
Do you pray every day?	Yes	0.02	0.04
	No	0.98	0.96
How often do you...			
Watch or listen to religious programs/sermons	At least once a day	0.45	0.47
	At least once a week	0.34	0.29
	A few times a month	0.06	0.05
	At most once a month	0.1	0.1
	Never	0.05	0.08
How often do you... Read or listen to the Quran or Dua	At least once a day	0.64	0.63
	At least once a week	0.23	0.21
	A few times a month	0.03	0.04
	At most once a month	0.07	0.07
	Never	0.04	0.04

Table A9: **Variables in Religious Practice Battery of Questions**

Question	Responses	Iraq Proportion	Iran Proportion
<i>How strongly do you agree or disagree with the following statements?</i>			
Under a democratic system, economic performance is weak	Strongly disagree	0.17	0.08
	Disagree	0.34	0.35
	Agree	0.23	0.3
	Strongly agree	0.25	0.27
Democratic regimes are not effective at maintaining order and stability	Strongly disagree	0.12	0.08
	Disagree	0.32	0.35
	Agree	0.28	0.28
	Strongly agree	0.28	0.28
Democracy negatively affects social and ethnical values in Iraq	Strongly disagree	0.11	0.07
	Disagree	0.22	0.32
	Agree	0.28	0.29
	Strongly agree	0.39	0.33
Democracy is a system that contradicts the teachings of Islam	Strongly disagree	0.21	0.08
	Disagree	0.38	0.32
	Agree	0.22	0.28
	Strongly agree	0.19	0.32

Table A10: **Variables in Anti-Democracy Battery of Questions**

Question	Responses	Iraq Proportion	Iran Proportion
<i>How strongly do you agree or disagree with the following statements?</i>			
Religion should inform all political decisions the government makes	Strongly disagree	0.15	0.05
	Disagree	0.27	0.15
	Agree	0.28	0.3
	Strongly agree	0.29	0.51
How important do you feel is the Marjayiyas role in guiding political events in Iraq	Not at all important	0	0.02
	Somewhat unimportant	0.01	0.03
	Somewhat important	0.05	0.14
	Very Important	0.93	0.81
A marjahs political fatwas are as binding as his ibadat fatwas	Strongly disagree	0.06	0.03
	Disagree	0.18	0.08
	Agree	0.26	0.27
	Strongly agree	0.49	0.62

Table A11: **Variables in Religion in Politics Battery of Questions**



Question	Responses	Iraq Proportion	Iran Proportion
<i>How often do you get your news from:</i>			
TV	Never	0.06	0.06
	Rarely	0.11	0.05
	Few times a month	0.03	0.03
	Few times a week	0.17	0.10
	Daily	0.62	0.76
Radio	Daily	0.76	0.51
	Few times a week	0.14	0.27
	Few times a month	0.02	0.05
	Rarely	0.03	0.06
	Never	0.05	0.12
Newspaper and Magazines	Daily	0.73	0.34
	Few times a week	0.15	0.25
	Few times a month	0.04	0.07
	Rarely	0.04	0.13
	Never	0.04	0.21
Internet	Daily	0.46	0.36
	Few times a week	0.05	0.09
	Few times a month	0.03	0.06
	Rarely	0.09	0.11
	Never	0.37	0.38
Friends and Family	Daily	0.25	0.19
	Few times a week	0.07	0.09
	Few times a month	0.03	0.04
	Rarely	0.13	0.23
	Never	0.53	0.44
Mosque	Daily	0.55	0.25
	Few times a week	0.13	0.11
	Few times a month	0.09	0.10
	Rarely	0.09	0.20
	Never	0.15	0.33

Table A12: **Variables in News Consumption Battery of Questions**

Question	Responses	Iraq Proportion
Do you agree that a politician belonging to a sect different than yours can represent your concerns or solve the problems you and your community face?	Disagree	0.19
	Somewhat disagree	0.03
	Somewhat agree	0.06
	Agree	0.72
Would you say the Islamic political parties are better, worse, or about the same as the other political parties in Iraq?	Worse	0.22
	Same	0.42
	Better	0.36
In your opinion, which party is most suitable to lead Iraq?	Shi'a Party	0.24
	Other	0.76

Table A13: **Variables in Sectarian Politics Battery of Questions.** Shi'a parties were defined as The Sadrist Trend (9.6%), the Islamic Dawa Party (7.5%), and the Badr Movement (7.5%).

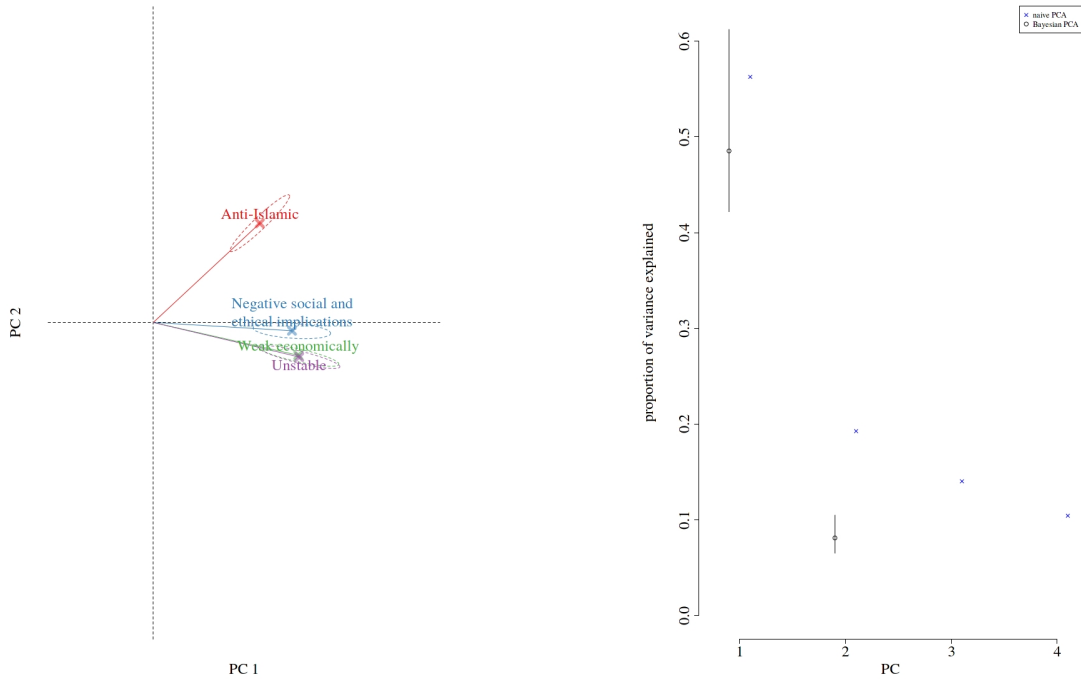


Figure A5: **Anti-Democracy Battery of Questions.** Posterior distributions of question loadings on first and second Bayesian principal components. Cronbach's  $\alpha = 0.73$ .

Question	Responses	Iraq Proportion	Iran Proportion
<i>Please tell us how strongly you agree or disagree with the following statements:</i>			
University education is more important for a boy than for a girl	Strongly disagree	0.27	0.14
	Disagree	0.36	0.35
	Agree	0.17	0.22
	Strongly agree	0.2	0.28
A married woman needs her husband's permission to work outside the home	Strongly disagree	0.01	0
	Disagree	0.05	0.03
	Agree	0.25	0.21
	Strongly agree	0.7	0.75
Having a job is the best way for a woman to be an independent person	Strongly disagree	0.06	0.17
	Disagree	0.29	0.39
	Agree	0.28	0.21
	Strongly agree	0.36	0.23
When a mother works for pay, her children suffer	Strongly disagree	0.05	0.02
	Disagree	0.17	0.19
	Agree	0.33	0.33
	Strongly agree	0.45	0.46
On the whole, men make better political leaders than women	Strongly disagree	0.13	0.03
	Disagree	0.24	0.19
	Agree	0.25	0.28
	Strongly agree	0.38	0.5
Women should have the same rights and opportunities as men	Strongly disagree	0.04	0.09
	Disagree	0.2	0.2
	Agree	0.32	0.36
	Strongly agree	0.43	0.35
A woman should be allowed to choose whom she wants to marry	Strongly disagree	0.02	0.01
	Disagree	0.08	0.03
	Agree	0.26	0.26
	Strongly agree	0.64	0.69

Table A14: **Variables in Gender Roles Battery of Questions**

Question	Responses	Iraq Proportion	Iran Proportion
<i>Have Iran's interventions in the countries below had a positive or negative impact?</i>			
Iraq	Negative	0.13	0.01
	Somewhat Negative	0.05	0.01
	Somewhat Positive	0.17	0.07
	Positive	0.64	0.91
Syria	Negative	0.12	0.01
	Somewhat Negative	0.05	0.02
	Somewhat Positive	0.17	0.09
	Positive	0.66	0.88
Yemen	Negative	0.13	0.02
	Somewhat Negative	0.04	0.02
	Somewhat Positive	0.16	0.19
	Positive	0.66	0.77
Lebanon	Negative	0.11	0.01
	Somewhat Negative	0.04	0.01
	Somewhat Positive	0.15	0.11
	Positive	0.70	0.86
Bahrain	Negative	0.13	0.02
	Somewhat Negative	0.04	0.03
	Somewhat Positive	0.16	0.21
	Positive	0.67	0.73
Afghanistan	Negative	0.16	0.04
	Somewhat Negative	0.05	0.05
	Somewhat Positive	0.17	0.24
	Positive	0.62	0.67
Gaza	Negative	0.16	0.04
	Somewhat Negative	0.05	0.05
	Somewhat Positive	0.17	0.18
	Positive	0.62	0.73

Table A15: **Variables in Iran Interventions Battery of Questions**

Question	Responses	Iraq Proportion	Iran Proportion
<i>Do you support or oppose financial assistance to each of the following groups?</i>			
Palestinian groups like Hamas and Islamic Jihad	Oppose	0.22	0.09
	Somewhat oppose	0.04	0.05
	Somewhat support	0.12	0.18
	Support	0.61	0.68
Hezbollah	Oppose	0.04	0.03
	Somewhat oppose	0.02	0.02
	Somewhat support	0.07	0.08
	Support	0.87	0.87
Yemen Houthis	Oppose	0.06	0.07
	Somewhat oppose	0.01	0.03
	Somewhat support	0.08	0.18
	Support	0.84	0.72
Bahrain Opposition	Oppose	0.06	0.08
	Somewhat oppose	0.02	0.04
	Somewhat support	0.09	0.17
	Support	0.83	0.71
Syrian Government and Army	Oppose	0.11	0.05
	Somewhat oppose	0.03	0.04
	Somewhat support	0.15	0.14
	Support	0.71	0.78
Afghan Shiite Groups	Oppose	0.08	0.07
	Somewhat oppose	0.02	0.05
	Somewhat support	0.12	0.20
	Support	0.78	0.68

Table A16: **Variables in Shi'a Group Assistance Battery of Questions**

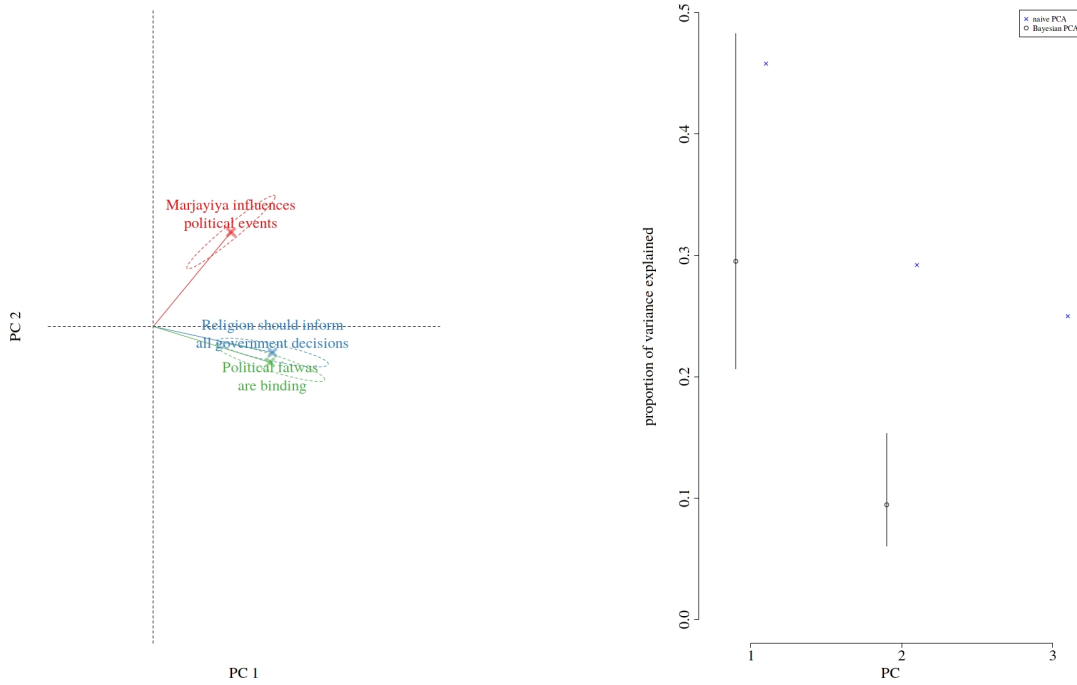


Figure A6: **Role of Religion in Politics Battery of Questions.** Posterior distributions of question loadings on first and second Bayesian principal components. Cronbach's  $\alpha = 0.37$ .

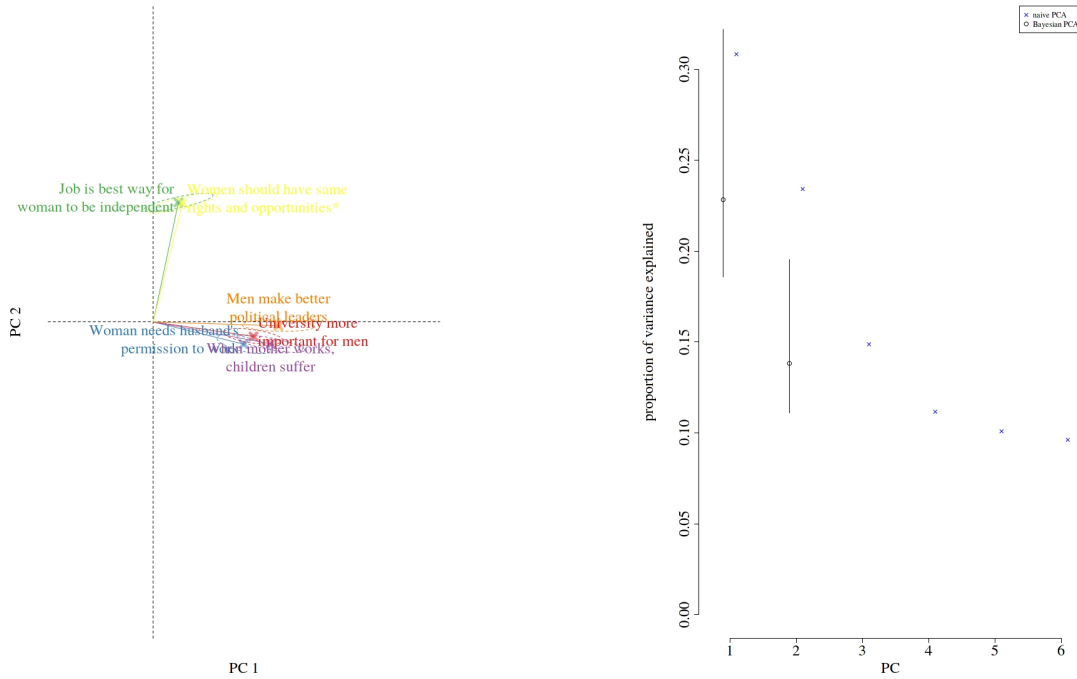


Figure A7: **Gender Roles Battery of Questions.** Posterior distributions of question loadings on first and second Bayesian principal components. Cronbach's  $\alpha = 0.51$ .

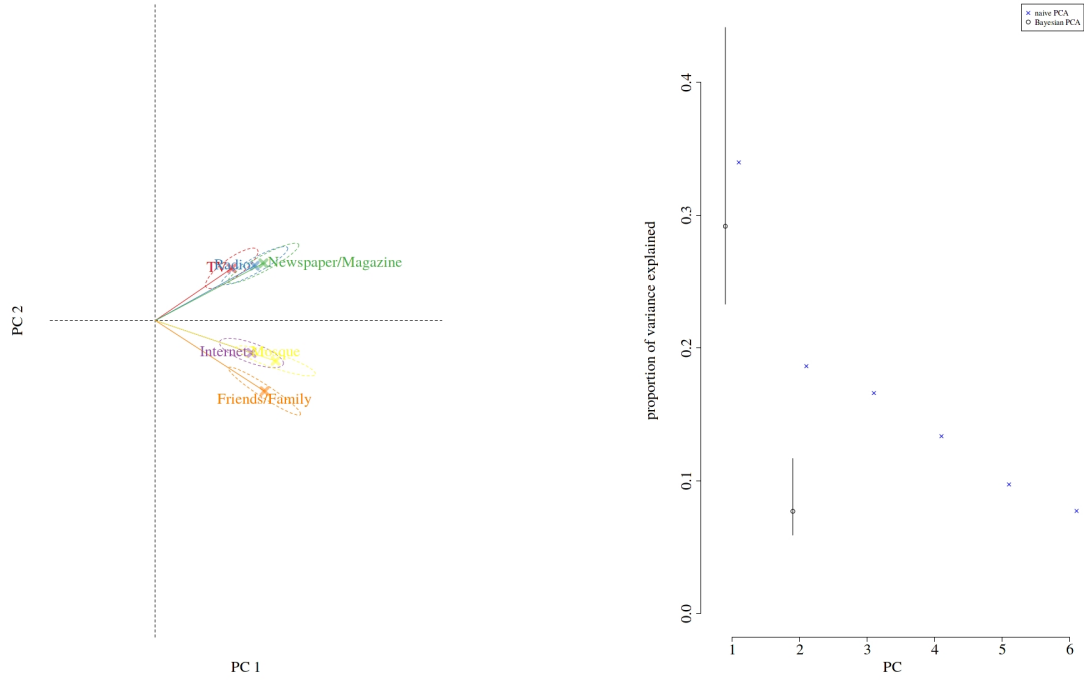


Figure A8: **News Consumption Battery of Questions.** Posterior distributions of question loadings on first and second Bayesian principal components. Cronbach's  $\alpha = 0.62$ .

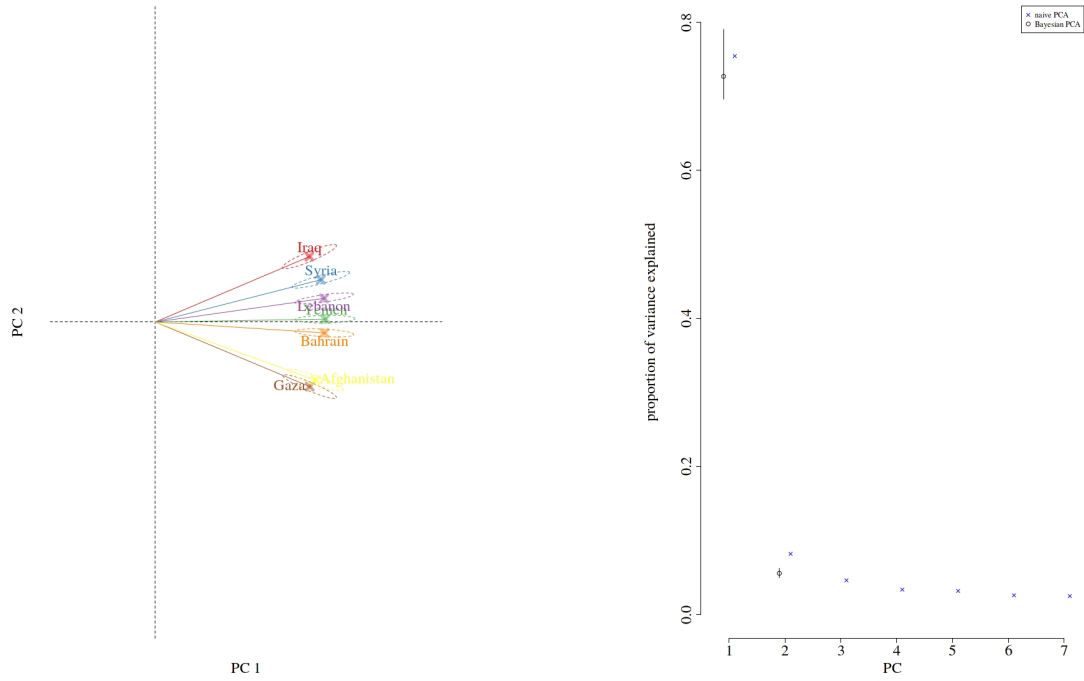


Figure A9: **Support for Iran Interventions Battery of Questions.** Posterior distributions of question loadings on first and second Bayesian principal components. Cronbach's  $\alpha = 0.94$ .

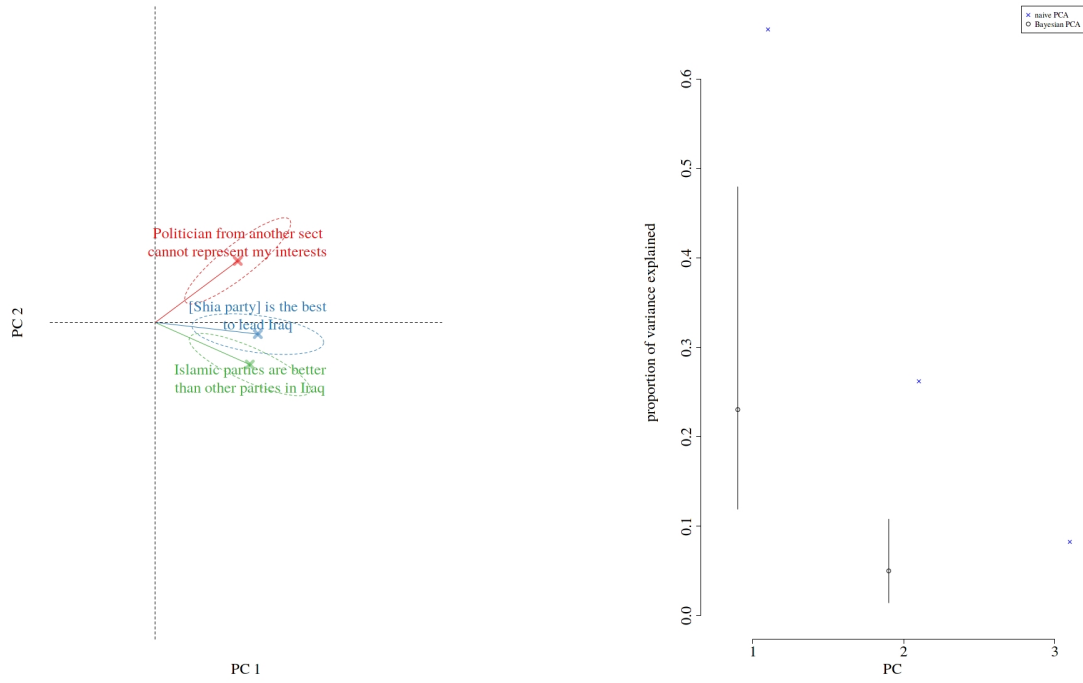


Figure A10: **Sectarian Politics Battery of Questions (Iraq only)**. Posterior distributions of question loadings on first and second Bayesian principal components. Cronbach's  $\alpha = 0.21$ .

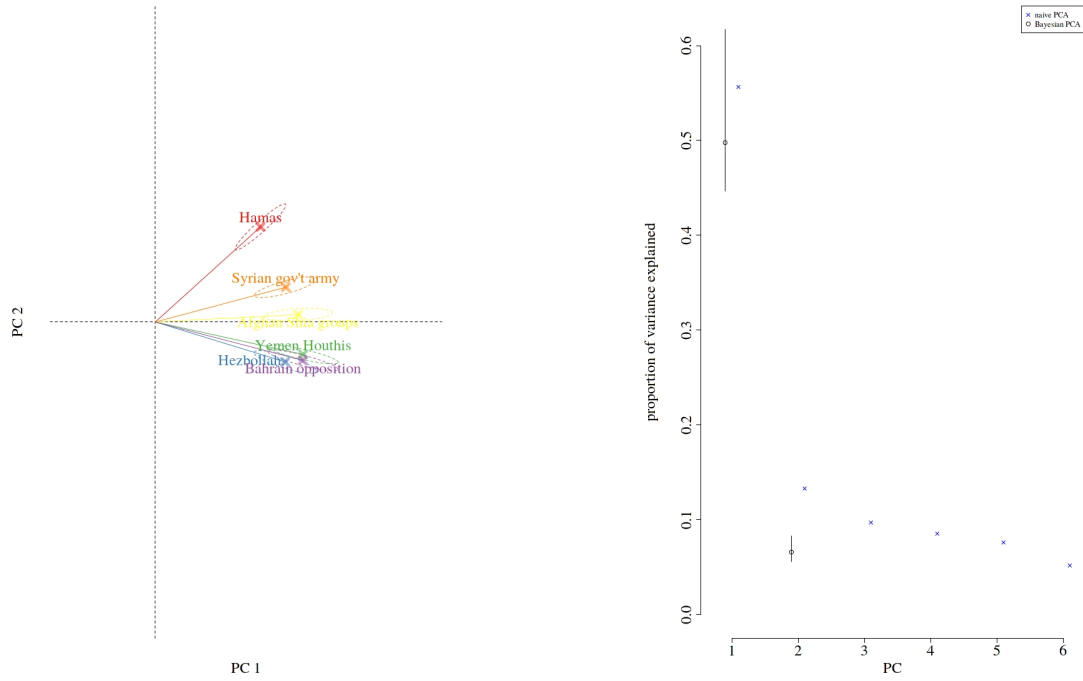


Figure A11: **Support for Assistance for Shi'a Groups Battery of Questions**. Posterior distributions of question loadings on first and second Bayesian principal components. Cronbach's  $\alpha = 0.83$ .



## Validating the Sectarian animosity Measure

As a first test of our measurement strategy, we asked Iraqi respondents whether they would support an initiative in which Shi’a and Sunni prayed together at their own mosques. Surprisingly, the vast majority (92%) indicated support—a result that we attribute largely to social desirability bias, given clear evidence of anti-Sunni bias elsewhere. Yet despite the distortion of these answers, we find that sectarian animosity is a major predictor of responses: a standard-deviation (s.d.) increase in sectarian animosity is associated with an average 5-percentage-point (p.p.) decrease in willingness to pray together; as a point of reference, this change in support is roughly twice as strong as that produced by the hypothetical endorsement of the respondent’s own imam. Similarly, our measure of sectarian animosity strongly predicts stated support for the summary execution of suspected (Sunni) Islamic State war criminals: those with sectarian animosity BPCA scores that are one s.d. higher are, on average, 10 p.p. more likely to call for execution without a trial (all  $p$ -values  $< 0.001$ ).

To ameliorate potential concerns about reporting biases, we next turn to paired-profile conjoint experimental questions in which Iraqi respondents made choices in hypothetical scenarios with randomly assigned characteristics. Such experiments, while still based on self-reports, have been shown to track actual behavior closely due to their design (Hainmueller, Hangartner, and Yamamoto, 2015). Our analyses show that hypothetical Sunni neighbors and daughter-in-laws were considered less desirable than Shi’a ones across the board. But as expected, the “Sunni penalty” depended greatly on the respondent’s sectarian animosity measure. For those who were one s.d. above the mean in sectarian animosity, Sunni neighbor (daughter-in-law) profiles were roughly 26 (31) p.p. less likely to be selected, whereas the Sunni penalty was only 21 (25) for the average respondent (difference-in-difference  $p$ -values  $< 0.001$ ). As a point of reference, those who consumed alcohol—viewed as a serious moral failing—were 47 p.p. less likely to be seen as a desired neighbor, and divorcees were 16 percentage points less likely to be preferred as daughters-in-law (Figures A12 and A13 present full conjoint plots.)

Finally, in what we believe to be the most credible test of our sectarian measure’s validity, we measured actual decisions through a deception scenario in which respondents believed that sectarian animosity behavior would incur real-world costs. We first asked both Iraqis and Iranians to select their preferred organization from a list, informing them that the most popular would receive a donation of \$1,000.<sup>8</sup> After naming their choice, respondents were asked whether they would support our doubling the donation if it meant that a Sunni organization would also receive \$1,000. Overall, 20% of Iraqi respondents and 32% of Iranians would rather decline the additional donation to their preferred organization than see a Sunni group benefit, and their decisions are closely tied to our metric: those who are one s.d. more sectarian are significantly more opposed by 9 p.p. ( $p < 0.001$ ). Full results are reported in Table A19. Taken together, these results indicate that despite being based on self-reported responses to abstract survey questions, the sectarian animosity principal component nonetheless strongly predicts respondent decisions in a wide range of realistic scenarios.

Taken together, these results indicate that despite being based on self-reported responses to abstract survey questions, the sectarian animosity principal component nonetheless strongly predicts respondent decisions in a wide range of realistic scenarios. These validation exercises also offer the opportunity to test whether the consistent gender heterogeneity that we find in our main results could have been driven by differential mismeasurement between men and women. For each scenario described above, we evaluate

---

<sup>8</sup>Respondents selected from among Hamas, Hashd Shabi, Hezbollah, Red Crescent, and Syrian volunteer forces helping the Syrian army. This question was approved to utilize deception, because research funds could not in fact have been donated to the listed organizations.

whether a comparable increase in sectarian animosity is associated with a different change in the outcome for men, versus the corresponding change for women. If such a gap existed, it might indicate that our sectarian animosity index failed to capture the same latent concept in men and women. We find no evidence of such gender disparities in the meaning of our sectarian animosity measure.

Below, we provide more detail on the designs for each of these questions.

Dependent variable: support interfaith prayer			
	Pooled	Gender	ctrls
	(1)	(2)	(3)
Constant	0.927*** (0.009)	0.925*** (0.009)	−0.107 (0.157)
Endorser: Imam	0.020*** (0.007)	0.023*** (0.008)	0.029* (0.012)
Endorser: Mayor	−0.005 (0.009)	−0.009 (0.009)	0.0005 (0.013)
Male	−0.015*** (0.009)	−0.012 (0.009)	−0.010 (0.015)
Age			0.003 (0.003)
Age <sup>2</sup>			−0.00003 (0.00004)
Education (years)			0.003*** (0.001)
Income sufficiency			0.014*** (0.004)
Sectarianism	−0.053*** (0.006)	−0.045*** (0.007)	−0.045*** (0.008)
Male × Sectarianism		−0.011 (0.009)	−0.013 (0.011)
Province FE	No	No	Yes
Observations	2,387	2,387	2,337
R <sup>2</sup>	0.043	0.044	0.067

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A17: **Validation of Sectarian animosity Measure: Support Praying Together.** Regression results from a validation exercise demonstrating that the proposed sectarian animosity measure is highly predictive of self-reported willingness to support a joint Sunni-Shi’a prayer initiative at their own mosques. Estimates indicate that larger values of the BPCA-based sectarian animosity measure are highly predictive of decreased support, and a one-standard-deviation increase is markedly stronger of a predictor as randomly assigned endorsement by religious or political authorities (coefficients are relative to the baseline category of no endorsement).

Dependent variable: summary execution				
	iraq.base	iraq.ctrls	iran.base	iran.ctrls
	(1)	(2)	(3)	(4)
Constant	0.556*** (0.019)	0.242 (0.182)	0.499*** (0.015)	0.678*** (0.093)
Victim: Sunnis	-0.027 (0.018)	-0.027 (0.019)	0.017 (0.022)	0.028 (0.024)
Capturer: Iraqi army	0.004 (0.014)	-0.004 (0.018)	-0.018 (0.021)	-0.028 (0.017)
Leader: Shia politicians	-0.017 (0.024)	-0.016 (0.028)		
Leader: Shia religious leaders	-0.030* (0.024)	-0.067 (0.034)		
Leader: Sunni politicians	-0.018 (0.024)	-0.006 (0.032)		
Leader: Sunni religious leaders	-0.043 (0.021)	-0.043 (0.023)	0.021*** (0.020)	0.019 (0.022)
Male	-0.200*** (0.019)	-0.190*** (0.021)	-0.073*** (0.017)	-0.144*** (0.029)
Sectarianism	0.089*** (0.011)	0.086*** (0.017)	0.109*** (0.014)	0.119*** (0.029)
Age		-0.0004 (0.006)		-0.003 (0.005)
Age <sup>2</sup>		0.00001 (0.0001)		0.00000 (0.0001)
Education (years)		-0.008*** (0.002)		-0.006* (0.003)
Income sufficiency		0.018* (0.010)		0.012 (0.018)
Male × Sectarianism		-0.019 (0.022)		-0.039 (0.033)
Province FE	No	Yes	No	Yes
Observations	2,178	2,132	1,466	1,341
R <sup>2</sup>	0.074	0.122	0.055	0.103

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A18: **Validation of Sectarian animosity Measure: Summary Execution of Suspected Sunni War Criminals.** Regression results from a validation exercise demonstrating that the proposed sectarian animosity measure is highly predictive of self-reported support for summary execution of suspected war criminals belonging to the Islamic State, a Sunni extremist organization, without trial. Estimates indicate that larger values of the BPCA-based sectarian animosity measure are highly predictive of increased support, and a one-standard-deviation increase is a far stronger predictor than randomly assigned elements of the vignette: A plea for right-to-trial by various leaders (versus no plea), capture by the Iraqi army (versus Shi'a militant groups), or if victims of the war crime were described as Sunni (vs Shi'a).

Dependent variable: double donation				
	iraq.base	iraq.ctrls	iran.base	iran.ctrls
	(1)	(2)	(3)	(4)
Constant	0.818*** (0.007)	0.973*** (0.220)	0.523*** (0.010)	0.471*** (0.085)
Male	-0.015 (0.010)	-0.009 (0.020)	0.200*** (0.015)	0.249*** (0.030)
Sectarianism	-0.090*** (0.010)	-0.076*** (0.013)	-0.095*** (0.013)	-0.093*** (0.026)
Age		0.001 (0.005)		0.012*** (0.003)
Age <sup>2</sup>		-0.00004 (0.0001)		-0.0001*** (0.00004)
Education (years)		0.006*** (0.001)		0.001 (0.002)
Income sufficiency		0.012 (0.009)		-0.015* (0.008)
Male × Sectarianism		-0.020 (0.017)		-0.005 (0.029)
Province FE	No	Yes	No	Yes
Observations	2,390	2,340	1,606	1,438
R <sup>2</sup>	0.061	0.084	0.087	0.143
<i>Note:</i> *p<0.1; **p<0.05; ***p<0.01				

**Table A19: Validation of Sectarian animosity Measure: Matching Donations to Sunni and Shi’a Organizations.** Regression results from a validation exercise demonstrating that the proposed sectarian animosity measure is highly predictive of willingness to vote for the donation of \$1,000 to a Sunni group in order to secure a matching donation to their preferred Shi’a organization. Respondents were deceptively led to believe that their refusal could result in real-world costs for their preferred organization, which was selected from a list including Red Crescent and Hashd Shabi. (In fact, research funds could not have been donated to the listed organizations.) Estimates indicate that larger values of the BPCA-based sectarian animosity measure are highly predictive of a willingness to accept costs in order to deny a material benefit to the out-group.

## Sunni Shia Pray Together

For this question, we asked respondents “Would you support an initiative that brought Shi’a and Sunni together at your mosque to pray side-by-side?” Absolute levels of support were extremely high, with around 90% of respondents coming in favor of the initiative regardless of prime. This may partially reflect social desirability bias, since respondents want to be perceived as open-minded and following official religious teaching, which embraces the religious unity of Sunni and Shi’a. These findings contrast with experimental results from conjoint analysis, discussed in detail below, that indicate respondents are biased against Sunni neighbors and potential Sunni spouses.

Reflecting the overall frustration with authority found in other parts of the survey, **Iraqi** men were more likely to not support the initiative when it was endorsed by either the imam or the mayor. Only 7.6% of men did not endorse given the base prime, but this rose to 9.5% when given the imam prime (significant at the 0.05 level), and even higher to 11.7% given the mayor prime (significant at the 0.05 level). Women were not significantly sensitive to the mayor prime, but were more likely to support the initiative given the imam prime (7.6% not supporting with imam, versus 10% with base; significant at the 0.01 level without controls). Non-response was extremely low, at 0% for men and 0.03% for women.

## Trial or Execution?

In order to analyze whether or not individuals supported the rule of law in the ongoing conflict against ISIS, respondents were asked to respond to a scenario that had them decide whether an alleged war criminal should be tried by a tribunal or be summarily executed. Specifically, we asked,

In the area around Mosul, the Islamic State killed several [**VICTIM**] who were not willing to collaborate with them. Recently, the [**CAPTURER**] captured the area and arrested men who they suspect participated in these killings. [**ENDORSER**] say that these people should be tried by a tribunal in Baghdad. What do you think?

We randomly varied whether (1) the victim of the crime was Sunni or Shi’a; (2) if the authority endorsing trial over execution was a member of the Iraqi government, a Shi’a politician, a Shi’a religious leader, a Sunni politician, or a Sunni religious leader; and (3) whether the capturer was the Iraqi army alone or the army with Iranian support. We find that respondents had no statistically significant difference in support for the tribunal in response to experimental manipulation of the endorser, victim, or capturer. Overall, both Iranians and Iraqis supported the tribunal over the summary execution, irrespective of the victims’ sect.

Iranian men were more likely to believe that the killer should have access to a trial, with 55% of Iranian men supporting the tribunal as opposed to 45% of Iranian women (significant at the 0.01 level). Non-response in Iran was near average, at 9.9% for women and 7.7% for men.

More educated Iraqi respondents were more likely to believe that a killer should have access to a tribunal, with 7.4% of respondents with no education favoring a trial (base), followed by 8.2% of respondents with a primary education (significant at the 0.05 level), 12.1% of respondents with a middle school education (significant at the 0.1 level), 45% of respondents with a high school education (significant at the 0.05 level), and 27.3% of respondents with a college education (significant at the 0.1 level). Non-response for Iraqi respondents was below average, at 1.7% for men and 5.5% for women.

## Conjoint Analysis

Conjoint analysis is a method to ascertain ranked preferences of individuals, through having people make a series of choices between realistic trade-offs (Hainmueller, Hopkins and Yamamoto 2014).

As a way to probe further into latent attitudes towards sectarian animosity, we use conjoint analysis to analyze individuals' preferences regarding their neighbors, daughter-in-laws, and politicians. Individuals are faced with a series of choices between two candidate neighbors, potential spouses for their son, or politicians (see example below). They are given information on a few attributes of those individuals, such as religiosity, or political experience. The attributes that each politician has are *randomly varied*. Asking a respondent to rank their preferences for all combinations of attributes would be impossible, so by giving a respondent a limited number of examples with randomly assigned attributes allows us to aggregate the results from all respondents and come up with the expected change in probability of choosing one of the two individuals that a specific characteristic provides.

This analysis is especially useful when trying to disaggregate potential roots of preferences. For our purposes, asking about race, sect, socioeconomic status and morality, for example, allows us to test whether sect is important independent of the implications it might have about race, socioeconomic status, or morality.

We asked three questions concerning respondents' preferences about the attributes of their neighbors, their son's wife, and regional politicians. For neighbors, we analyzed people's preferences based on neighbor's moral habits, employment, race, and sect; for the son's wife, we analyzed preferences based on the wife's religiosity, education, former marital status, race, sect, and wealth. For politicians, we asked about preferences based on the politician's religiosity, experience, security ties, and trade policies (see an example of the latter in the figure above).<sup>9</sup>

Because a key element of any strong experimental analysis is to make the situation as realistic as possible, we were limited in what we could ask Iranians about sect—since the likelihood of them having a Sunni or Kurdish neighbor or potential daughter-in-law were limited. Thus, questions about potential neighbors and sons' spouses were only shown to Iraqis, whereas both Iranians and Iraqis received conjoint questions about politicians.

### Conjoint: Neighbor (Iraq only)

Iraqi respondents were presented with the following question:

“Imagine that a new person is moving to your neighborhood. In the following questions, we will describe two potential neighbors. Please read their descriptions carefully, then indicate which of the two you would prefer to have as a neighbor.”

Respondents were most sensitive to **alcoholism**, considered a moral failing in Islam, as well as a habit that would likely lead to unruly conduct. This was contrasted with the habit of soccer. Individuals were nearly 40 percentage points more likely to pick the neighbor choice that had the habit of soccer rather than alcoholism. Women were more likely to see this as an important attribute than men, with soccer increasing the likelihood of a woman choosing a profile by 45 percentage points, as opposed to only 38 percentage points for men.

The second most sensitive dimension was **sect**. Against the baseline preference of a Shi'a neighbor, individuals were 20 percentage points less likely to pick a Sunni rather than a Shi'a neighbor. Preferences between Sunni and Christian neighbors varied between men and women, with women showing no statistically

---

<sup>9</sup>The options for each of the attributes can be found in the appendix.

significant differences in their preferences between the two sects as compared to Shi'a neighbors, but men being 7 percentage points more likely to choose the profile of a Christian neighbor over a Sunni.

The third most sensitive dimension was **race**, with respondents being about 10 percentage points more likely to choose an Iraqi Arab over an Iraqi Kurd. This result was consistent for both men and women.

The least sensitive dimension was **employment**, with the expected effect on the outcome hovering near zero. There is suggestive evidence that respondents preferred teachers, followed by military officers, then entertainers, and finally politicians, yet the effect of all these preferences are near zero, highlighting the outsized importance of perceived morality and sect in individual preferences.

### **Conjoint: Son's Wife (Iraq only)**

Iraqi respondents were presented with the following question:

Now, imagine that your son is choosing a wife. In the following questions, we will describe two potential wives. Please read their descriptions carefully, then indicate which of the two you would prefer to have as a daughter-in-law.

Individuals were most sensitive to their son's wife's **sect**. Respondents were nearly 30 percentage points more likely to prefer a Shi'a wife over a Sunni wife, with men slightly more so than women. For both men and women, however, Sunni Muslims were preferred to Christians by about 5 percentage points, which contrasts with the analysis for neighbors, where women exhibited a slight preference for Christian over Sunni neighbors. This mirrors findings from other contexts, where individuals who exhibit very limited racial bias still note racial preferences in dating and marriage (Fisman et al. 2009)

Individuals were then most likely to prefer a woman who was **devout** to one who was not devout, by about 20 percentage points. There was no statistically significant difference for men and women in this preference, highlighting the unsurprising importance of religiosity to this religious group.

Individuals were then most sensitive to **marital status**, which was seen as nearly equally important to the woman not being devout. Interestingly, individuals did not show a statistically significant difference in preferences for divorced versus widowed women, and were about 16-18 percentage points less likely to prefer a woman who was never married.

For **racial preferences**, respondents were most likely to prefer an Iraqi Arab, followed by an Iraqi Kurd, and then an Iranian. Note that this is while holding constant the effect of sect. Despite the positive attitudes indicated toward Iran as a regional power in other parts of the survey, there is a clear personal preference for Iraqis, even of a different race or sect when it comes to marital choices. Race was more important for women than for men, with women preferring Iraqi Arabs by about 20 percentage points over Iranians and about 10 percentage points over Kurds, and men preferring Arabs by about 16 percentage points over Iranians and about 13 percentage points over Kurds.

Respondents had a 7 percentage point preference for an educated wife to an uneducated one, and this result held across genders of respondents.

The least important factor was the woman's **wealth**. Individuals indicated a slight preference for a **wealthy** spouse for their son, yet the effect was small, at around 3 percentage points for both men and women. This highlights the overwhelming importance of racial and sectarian attributes in individual choices about who they would choose as family.



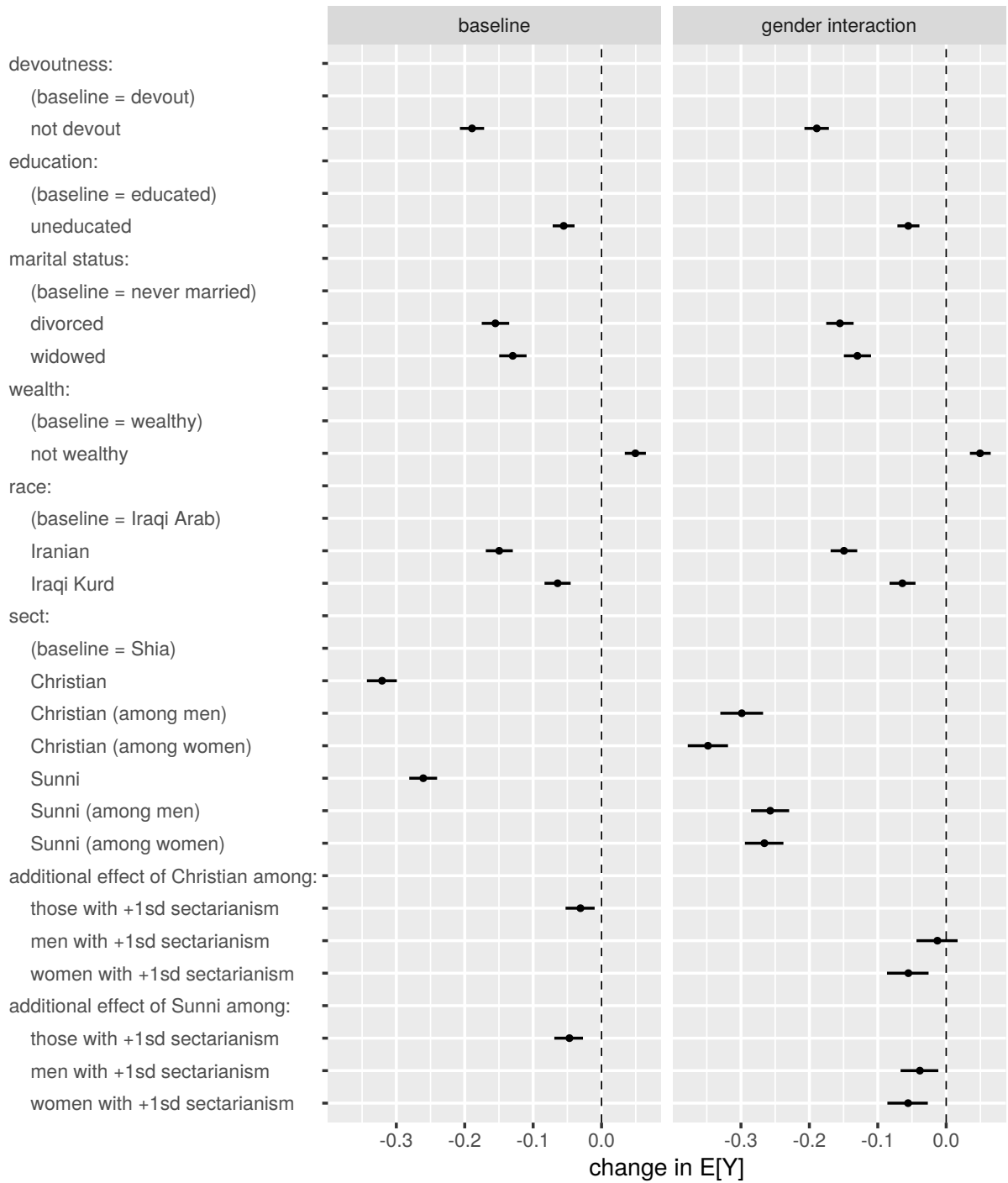


Figure A12: **Marriage Conjoint.** Horizontal points and errorbars reflect estimated effects and confidence intervals for randomly setting an attribute of the candidate daughter-in-law to a particular value (versus the baseline value for that attribute) on the probability of a profile’s selection. The “sect” coefficient estimates reflect estimated effects among respondents with average sectarian animosity; these show that on average, Christian and Sunni daughter-in-laws are far less preferred than Sunnis. The “additional effect” coefficients correspond to the interaction between a candidate’s sect and the respondent’s sectarian animosity BPCA score. These show that higher-scoring individuals are significantly more opposed to out-group daughter-in-laws, thereby confirming the proposed measure in an experimental setting.

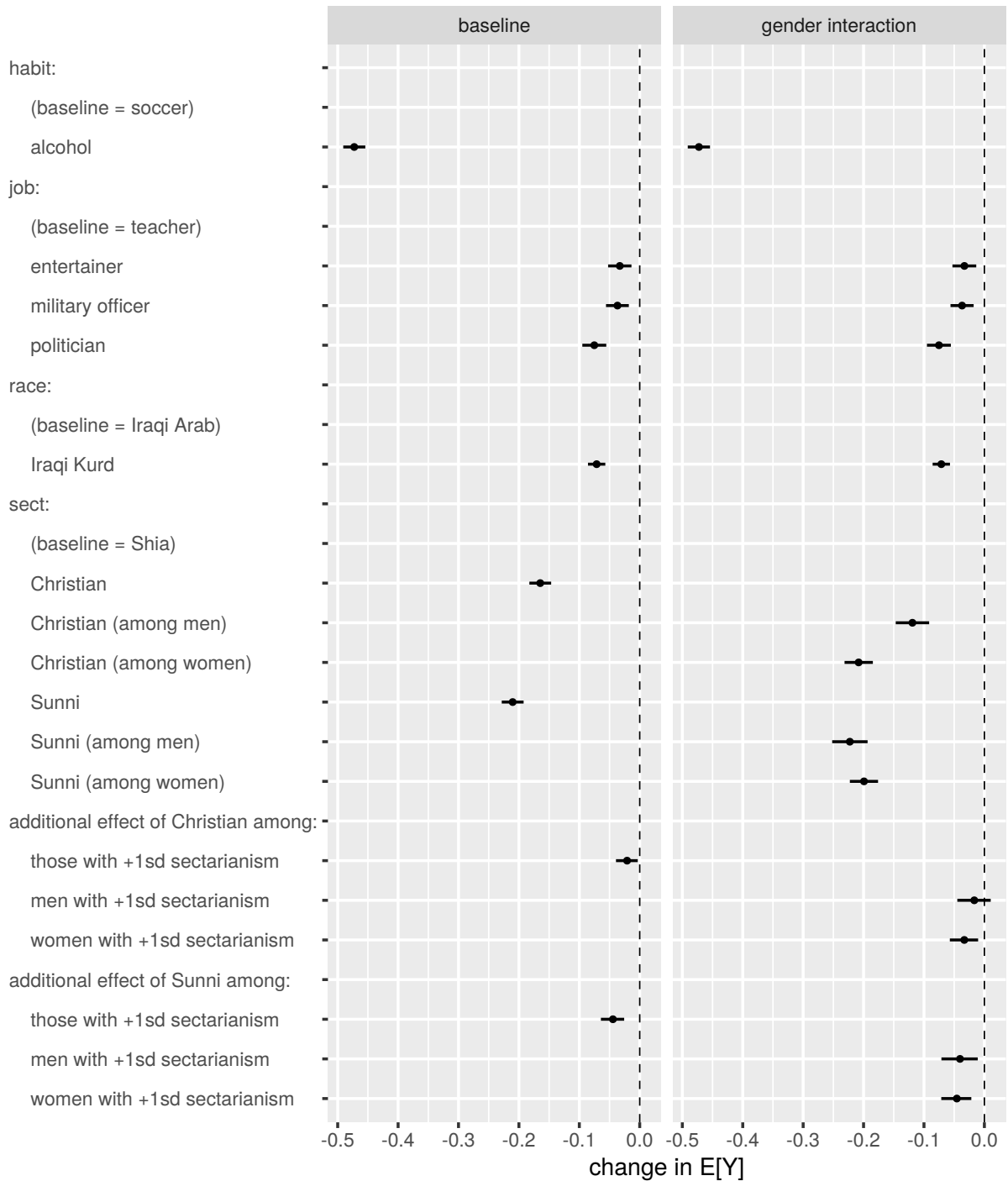


Figure A13: **Neighbor Conjoint.** Horizontal points and errorbars reflect estimated effects and confidence intervals for randomly setting an attribute of the candidate neighbor to a particular value (versus the baseline value for that attribute) on the probability of a profile's selection. The “sect” coefficient estimates reflect estimated effects among respondents with average sectarian animosity; these show that on average, Christian and Sunni neighbors are far less preferred than Sunnis. The “additional effect” coefficients correspond to the interaction between a candidate's sect and the respondent's sectarian animosity BPCA score. These show that higher-scoring individuals are significantly more opposed to out-group neighbors, thereby confirming the proposed measure in an experimental setting.

## Detailed Results: Drivers of Sectarian animosity (Excluding Violence)

	Dependent variable: Sectarianism					
	Pooled (baseline)	Men (baseline)	Women (baseline)	Pooled (full)	Men (full)	Women (full)
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	0.760*** (0.177)	1.017*** (0.241)	0.915*** (0.248)	0.573 (0.590)	1.451* (0.710)	0.302 (0.327)
Male	0.156*** (0.043)			0.123* (0.067)		
Age	-0.025*** (0.008)	-0.017 (0.014)	-0.036** (0.014)	-0.015 (0.016)	-0.030 (0.026)	-0.016 (0.017)
Age <sup>2</sup>	0.0003*** (0.0001)	0.0001 (0.0002)	0.0005** (0.0002)	0.0001 (0.0002)	0.0003 (0.0003)	0.0002 (0.0002)
Education (years)	-0.006 (0.004)	-0.009** (0.006)	0.004 (0.005)	-0.001 (0.006)	-0.014** (0.006)	0.017*** (0.006)
Shia-dominant province	0.069** (0.040)	-0.092 (0.060)	0.203*** (0.061)			
Income sufficiency	-0.071*** (0.024)	-0.079** (0.034)	-0.114*** (0.032)	-0.070*** (0.029)	-0.064 (0.053)	-0.070 (0.048)
Employment				0.015 (0.068)	0.145** (0.071)	-0.220*** (0.092)
Anti-democracy	0.122*** (0.025)	0.056** (0.027)	0.177*** (0.031)	0.111*** (0.029)	0.054 (0.042)	0.146*** (0.041)
Religious practice (overall)	-0.008 (0.026)	-0.090*** (0.031)	0.098*** (0.035)	0.018 (0.037)	-0.079* (0.050)	0.113** (0.052)
Religious practice (individualism)				-0.014 (0.032)	0.087** (0.042)	-0.098** (0.045)
Religion in politics				0.047** (0.026)	-0.004 (0.041)	0.079** (0.037)
News consumption				-0.049 (0.033)	-0.010 (0.048)	-0.087** (0.044)
Log mobile density				-0.035** (0.017)	-0.074*** (0.028)	-0.0005 (0.021)
Local pilgrimage rate				0.378*** (0.143)	0.222 (0.206)	0.545*** (0.203)
Province FE	No	No	No	Yes	Yes	Yes
Observations	2,231	1,029	1,202	1,888	840	1,048
R <sup>2</sup>	0.037	0.029	0.061	0.056	0.066	0.115

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A20: **Potential drivers of sectarian animosity in Iraq.** Regression results from baseline and full specifications, using all Iraqi respondents and disaggregating by gender. Baseline models contain one covariate corresponding to each hypothesized driver, and the full specification incorporates additional measures. These drivers are out-group contact (respondent lives in Shi'a-dominated province; Shi'a pilgrimage participation rate in respondent's neighborhood), economic deprivation (four-point income sufficiency scale, employment status, urbanization proxy based on neighborhood mobile-phone density), democratic disillusionment (anti-democratic attitude BPCA score, religion-in-government BPCA score), and religiosity (religious practice BPCA score first and second dimensions, which correspond to overall frequency and individual practice as opposed to communal worship). Violence exposure is tested separately among Baghdadi respondents.

	Dependent variable: Sectarianism					
	Pooled (baseline)	Men (baseline)	Women (baseline)	Pooled (full)	Men (full)	Women (full)
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	0.361* (0.163)	0.675** (0.245)	-0.084 (0.246)	0.628*** (0.208)	1.315*** (0.304)	-0.307 (0.402)
Male	-0.127*** (0.052)			-0.081 (0.065)		
Age	-0.020*** (0.007)	-0.042*** (0.012)	-0.005 (0.010)	-0.011 (0.011)	-0.040* (0.019)	-0.001 (0.016)
Age <sup>2</sup>	0.0002** (0.0001)	0.0005** (0.0002)	0.00005 (0.0001)	0.0001 (0.0001)	0.0005 (0.0003)	-0.00002 (0.0002)
Education (years)	0.003 (0.006)	0.001 (0.007)	0.009 (0.008)	-0.0004 (0.009)	-0.005 (0.009)	0.006 (0.010)
Income sufficiency	-0.026 (0.028)	-0.021 (0.034)	-0.026 (0.040)	-0.023 (0.031)	-0.025 (0.037)	-0.063 (0.054)
Employment				-0.209*** (0.078)	-0.177** (0.096)	-0.289*** (0.113)
Anti-democracy	0.038 (0.025)	0.091*** (0.039)	-0.055 (0.039)	0.039 (0.028)	0.067 (0.041)	-0.026 (0.049)
Religious practice (overall)	-0.119*** (0.028)	-0.208*** (0.038)	0.013 (0.042)	-0.132*** (0.033)	-0.210*** (0.051)	-0.017 (0.062)
Religious practice (individualism)				0.048 (0.032)	0.139*** (0.034)	-0.073 (0.046)
Religion in politics				0.012 (0.030)	-0.024 (0.034)	0.085 (0.064)
News consumption				-0.027 (0.031)	-0.072 (0.050)	0.094* (0.051)
Province FE	No	No	No	Yes	Yes	Yes
Observations	1,362	851	511	1,325	844	481
R <sup>2</sup>	0.026	0.062	0.007	0.074	0.138	0.096

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A21: **Drivers of sectarian animosity in Iran** Regression results from baseline and full specifications, using all Iranian respondents and disaggregating by gender. Baseline models contain one covariate corresponding to each hypothesized driver, and the full specification incorporates additional measures. These drivers are economic deprivation (four-point income sufficiency scale, employment status), political views (anti-democratic attitude BPCA score, religion-in-government BPCA score), and religiosity (religious practice BPCA score first and second dimensions, which correspond to overall frequency and individual practice as opposed to communal worship). Out-group contact and violence exposure are not tested among Iranian respondents due to lack of variation.

## Detailed Results: Drivers of Sectarian Animosity (Violence)

Given wide variation in SIGACTS incidence and coverage across provinces, we focus this analysis on Baghdad residents for whom neighborhood coordinates and our standard demographic controls (years of education, income category, employment status, and age) are fully observed. Operating at this scale allows us to introduce finer-grained geographic controls to address potential confounding by factors such as proximity to the city center, ensuring that results only reflect local variation in the density of SIGACTS. At the same time, restricting the analysis in this way reduces our sample size to a relatively small group of 565 residents.

We use various definitions of violence exposure that count SIGACTS within a radius ranging from one kilometer (roughly a neighborhood) to three kilometers (city district); for larger radii, individual variation is largely determined by the quadrant of the city in which they live. Our primary results are reported with a second-order expansion of latitude and longitude; we obtain virtually identical results using a general additive model with a bivariate smoothing spline.

	Dependent variable: Sectarianism				
	SIGACTS distance threshold:				
	1 km (1)	1.5 km (2)	2 km (3)	2.5 km (4)	3 km (5)
Education (years)	0.003 (0.011)	0.002 (0.009)	0.002 (0.010)	0.001 (0.009)	0.001 (0.009)
Income sufficiency	-0.107** (0.045)	-0.110*** (0.043)	-0.074 (0.053)	-0.074 (0.053)	-0.074 (0.053)
Employment	0.027 (0.090)	0.026 (0.089)	0.043 (0.106)	0.042 (0.105)	0.041 (0.105)
Age	-0.022 (0.037)	-0.004 (0.035)	-0.023 (0.037)	-0.023 (0.037)	-0.023 (0.037)
Age <sup>2</sup>	0.0003 (0.0005)	0.00001 (0.0005)	0.0003 (0.0005)	0.0003 (0.0005)	0.0003 (0.0005)
Male	0.296*** (0.112)	0.296*** (0.114)	0.309*** (0.090)	0.309*** (0.092)	0.310*** (0.092)
SIGACTS (1 km)	0.019 (0.055)				
SIGACTS (1.5 km)		-0.063 (0.064)			
SIGACTS (2 km)			-0.068 (0.083)		
SIGACTS (2.5 km)				-0.049 (0.090)	
SIGACTS (3 km)					-0.041 (0.096)
Observations	565	565	565	565	565
R <sup>2</sup>	0.038	0.040	0.040	0.039	0.039

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A22: **Exposure to violence.** Regression results from regressions of sectarian animosity on basic demographic controls and SIGACTS counts within varying distances of the respondent's home neighborhood, subsetting to the Baghdad region. All models include linear and quadratic controls for latitude and longitude that capture heightened violence near the urban core.

## Detailed Results: Sectarian Worldviews

	Dependent variable: Sect-based politics	
	Iraq (pooled) (1)	Iraq (gender) (2)
Constant	0.804* (0.659)	0.828* (0.659)
Education (years)	-0.047*** (0.004)	-0.044*** (0.004)
Income sufficiency	0.057** (0.027)	0.059*** (0.020)
Employment	0.008 (0.053)	0.018 (0.054)
Age	0.002 (0.013)	0.001 (0.012)
Age <sup>2</sup>	-0.0001 (0.0002)	-0.0001 (0.0002)
Male	0.223*** (0.042)	0.194*** (0.051)
Sectarianism	0.104*** (0.024)	
Female × Sectarianism		0.080*** (0.030)
Male × Sectarianism		0.145*** (0.041)
Province FE	Yes	Yes
Observations	2,339	2,339
R <sup>2</sup>	0.105	0.106
<i>Note:</i> *p<0.1; **p<0.05; ***p<0.01		

Table A23: **Sect-based Politics Worldview.** Iraq only. Results from regression of “sect-based political outlook” index on demographic controls and sectarian animosity (pooled and with gender interaction). Larger outcomes indicate a more sect-oriented perspective on politicians and parties.

Dependent variable: Strong role for religion in politics				
	Iraq (pooled) (1)	Iraq (gender) (2)	Iran (pooled) (3)	Iran (gender) (4)
Constant	−1.168 (1.176)	−1.224 (1.175)	−0.859*** (0.236)	−0.830*** (0.230)
Education (years)	−0.030*** (0.004)	−0.029*** (0.003)	−0.003 (0.004)	−0.004 (0.007)
Income sufficiency	0.024 (0.027)	0.025 (0.020)	0.130*** (0.025)	0.132*** (0.024)
Employment	−0.072 (0.054)	−0.037 (0.052)	0.015 (0.070)	0.023 (0.069)
Age	−0.003 (0.014)	−0.003 (0.012)	0.039*** (0.009)	0.039*** (0.011)
Age <sup>2</sup>	0.0001 (0.0002)	0.0001 (0.0002)	−0.0004*** (0.0001)	−0.0004*** (0.0001)
Male	0.123*** (0.038)	0.115*** (0.050)	−0.323*** (0.090)	−0.334*** (0.073)
Sectarianism	0.075*** (0.023)		−0.024 (0.028)	
Female × Sectarianism		0.138*** (0.033)		0.026 (0.046)
Male × Sectarianism		0.002 (0.038)		−0.049 (0.035)
Province FE	Yes	Yes	Yes	Yes
Observations	2,340	2,340	1,434	1,434
R <sup>2</sup>	0.050	0.056	0.069	0.070

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A24: **Religion and Politics Worldview.** Results from regression of “role of religion in politics” index on demographic controls and sectarian animosity (pooled and with gender interaction). Larger outcomes indicate support for a greater role by religious leaders in governance.



Dependent variable: Conservative views on gender roles				
	Iraq (pooled) (1)	Iraq (gender) (2)	Iran (pooled) (3)	Iran (gender) (4)
Constant	-1.927* (0.977)	-1.978* (0.978)	-0.210 (0.193)	-0.283 (0.206)
Education (years)	-0.036*** (0.003)	-0.034*** (0.003)	-0.008** (0.004)	-0.008 (0.006)
Income sufficiency	0.001 (0.026)	0.003 (0.018)	-0.009 (0.018)	-0.008 (0.019)
Employment	-0.117*** (0.051)	-0.084 (0.052)	0.143*** (0.070)	0.127*** (0.064)
Age	0.011 (0.013)	0.010 (0.011)	-0.004 (0.008)	-0.002 (0.010)
Age <sup>2</sup>	-0.0001 (0.0002)	-0.0001 (0.0002)	0.0001 (0.0001)	0.00004 (0.0001)
Male	0.781*** (0.059)	0.776*** (0.063)	0.295*** (0.046)	0.319*** (0.068)
Sectarianism	0.131*** (0.024)		0.080*** (0.024)	
Female × Sectarianism		0.190*** (0.035)		-0.010 (0.039)
Male × Sectarianism		0.058** (0.037)		0.112*** (0.031)
Province FE	Yes	Yes	Yes	Yes
Observations	2,320	2,320	1,395	1,395
R <sup>2</sup>	0.189	0.194	0.080	0.085

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A25: **Gender Conservatism Worldview.** Results from regression of “gender roles” index on demographic controls and sectarian animosity (pooled and with gender interaction). Larger outcomes indicate more traditional gender views.

Dependent variable: Support for Iran's foreign interventions				
	Iraq (pooled) (1)	Iraq (gender) (2)	Iran (pooled) (3)	Iran (gender) (4)
Constant	−1.397 (0.967)	−1.449 (0.964)	−0.208** (0.083)	−0.196* (0.096)
Education (years)	−0.001 (0.003)	0.001 (0.003)	−0.007*** (0.002)	−0.007 (0.004)
Income sufficiency	0.020 (0.032)	0.021 (0.020)	0.047*** (0.011)	0.049*** (0.013)
Employment	−0.216*** (0.065)	−0.200*** (0.064)	−0.043 (0.036)	−0.043 (0.044)
Age	0.052*** (0.017)	0.049*** (0.014)	0.022*** (0.005)	0.021*** (0.006)
Age <sup>2</sup>	−0.001*** (0.0002)	−0.001*** (0.0002)	−0.0002*** (0.0001)	−0.0002*** (0.0001)
Male	0.564*** (0.060)	0.581*** (0.068)	0.045 (0.042)	0.037 (0.036)
Sectarianism	0.121*** (0.028)		−0.017 (0.015)	
Female × Sectarianism		0.189*** (0.044)		−0.008 (0.025)
Male × Sectarianism		0.046 (0.043)		−0.017 (0.020)
Province FE	Yes	Yes	Yes	Yes
Observations	2,213	2,213	1,411	1,411
R <sup>2</sup>	0.073	0.078	0.055	0.055
<i>Note:</i>			*p<0.1; **p<0.05; ***p<0.01	

Table A26: **Iran Intervention Worldview.** Results from regression of “Iran intervention” index on demographic controls and sectarian animosity (pooled and with gender interaction). Larger outcomes indicate greater support for Iranian foreign interventions.

Dependent variable: Support for foreign Shia groups				
	Iraq (pooled) (1)	Iraq (gender) (2)	Iran (pooled) (3)	Iran (gender) (4)
Constant	0.133 (0.963)	0.065 (0.962)	−0.757*** (0.205)	−0.829*** (0.226)
Education (years)	0.001 (0.003)	0.003 (0.003)	−0.001 (0.004)	0.002 (0.007)
Income sufficiency	0.026 (0.027)	0.027* (0.018)	0.081*** (0.023)	0.078*** (0.025)
Employment	−0.157*** (0.055)	−0.120*** (0.050)	0.001 (0.081)	−0.010 (0.066)
Age	0.002 (0.013)	0.001 (0.011)	0.020** (0.009)	0.022** (0.011)
Age <sup>2</sup>	0.00004 (0.0002)	0.00005 (0.0001)	−0.0002 (0.0001)	−0.0002 (0.0001)
Male	0.200*** (0.047)	0.201*** (0.051)	−0.100** (0.055)	−0.109** (0.076)
Sectarianism	0.043** (0.023)		−0.044 (0.028)	
Female × Sectarianism		0.123*** (0.033)		−0.065 (0.049)
Male × Sectarianism		−0.056 (0.038)		−0.020 (0.034)
Province FE	Yes	Yes	Yes	Yes
Observations	2,296	2,296	1,414	1,414
R <sup>2</sup>	0.019	0.030	0.041	0.042

*Note:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table A27: **Shi’a Group Assistance Worldview.** Results from regression of “Shi’a group support” index on demographic controls and sectarian animosity (pooled and with gender interaction). Larger outcomes indicate greater support for financial assistance to foreign Shi’a groups.

## Multiple Testing

In Section 4.1, we examine five broad class classes of hypothesized drivers for sectarian animosity: out-group contact, economic deprivation, democratic disillusionment, religious devotion, and exposure to violence. These are first tested in a “baseline” regression specification of sectarian animosity on one measure for each hypothesized driver (excluding violence exposure, which is tested separately in a subset of respondents due to limited data availability.) This results in a total of five  $p$ -values for Iraqi respondents, which we adjust for multiple testing according to Benjamini and Hochberg (BH; 1995). Note that we inflate  $p$ -values by a multiplicative factor so they can be interpreted as usual rather than utilizing a modified significance threshold.

We then repeat the Iraqi analysis, disaggregating by gender, and show that the pooled results mask significant gender heterogeneity in the drivers of sectarian animosity. The BH correction is applied to the ten resulting  $p$ -values (one per driver and gender). Both pooled and gender-specific results are presented in Table A28.

Next, to better understand the mechanisms by which each driver operates, we use a more complete regression specification containing multiple measures for each of the broad hypothesis families. For example, predictors in this regression include three measures relating to the broader concept of economic deprivation: household income sufficiency, employment status, and a proxy for wealth and urbanization based on mobile-phone density. Again, all covariates are included in a single regression except for violence exposure. (For violence, we run five separate regressions in the Baghdad subset, in which various distance thresholds are used to define exposure to military “significant activities”.) In order to control false discoveries while properly accounting for the nested nature of these tests, we use the procedure of Peterson et al. (2015), which proceeds as follows. First, the Simes’ test is applied within each hypothesis family (e.g., “economic deprivation”) to test whether all constituent hypotheses are null. In the pooled model, this produces five family-specific  $p$ -values. Then, a BH correction is applied to inflate the Simes  $p$ -values. Hypothesis families that exceed some significance threshold are discarded; among the remainder, we then unpack the constituent hypotheses for further analysis. Within each surviving family, (1) another BH correction is applied, and (2) the resulting hypothesis-specific BH  $p$ -values are inflated once more by the inverse proportion of rejected families. In our analysis, we arbitrarily set the family threshold at 0.1; however, this procedure has been shown to control the average within-family error rate at nominal or better levels under typical dependence structures, regardless of the specific threshold. The raw, adjusted family, and adjusted hypothesis-specific  $p$ -values for pooled Iraqi respondents (five hypothesis families) are reported in the top panel of Table A29, followed by gender-disaggregated results (ten hypothesis families).

Finally, in Section 4.2, we report associations between sectarian animosity and various beliefs or attitudes that may reflect the worldviews of sectarian individuals. We consider five candidate attitudes among Iraqi respondents. Each is tested among both men and women; the resulting ten  $p$ -values are adjusted for multiplicity according to Benjamini and Hochberg. In Iran, where Shi’a dominance means that survey questions about sectarian politics would be implausible, this battery of questions was dropped for a total of four attitudes and eight tests. The results of these adjustments are reported in Table A32.

IRAQI RESPONDENTS, POOLING MEN AND WOMEN

Hypothesis family	Coefficient	Estimate	$p$ -value	Adj. $p$
Contact	Shi'a province (vs mixed)	0.069	0.048	0.080
Economic	Income sufficiency	-0.071	<0.001	<0.001
Political	Anti-democracy	0.122	<0.001	<0.001
Religious	Religious practice (overall)	-0.008	0.783	0.783
Violence	#SIGACTS $\leq 2$ km	-0.101	0.324	0.405

IRAQI RESPONDENTS, DISAGGREGATING BY GENDER

Hypothesis family	Coefficient	Estimate	$p$ -value	Adj. $p$
Contact (women)	Shi'a province (vs mixed)	0.203	<0.001	<0.001
Economic (women)	Income sufficiency	-0.114	<0.001	<0.001
Political (women)	Anti-democracy	0.177	<0.001	<0.001
Religious (women)	Religious practice (overall)	0.098	<0.001	<0.001
Violence (women)	#SIGACTS $\leq 2$ km	-0.314	0.022	0.036
Contact (men)	Shi'a province (vs mixed)	-0.092	0.200	0.222
Economic (men)	Income sufficiency	-0.079	0.036	0.045
Political (men)	Anti-democracy	0.056	0.033	0.045
Religious (men)	Religious practice (overall)	-0.090	<0.001	<0.001
Violence (men)	#SIGACTS $\leq 2$ km	0.058	0.635	0.635

Table A28: **Multiple-testing adjustments, Iraq baseline specification.** The top (bottom) panel reports raw and BH-adjusted  $p$ -values for each hypothesized driver of sectarian animosity, pooling all Iraqi respondents (disaggregating by gender). Results are based on a single measure for each hypothesized driver.

IRAQI RESPONDENTS, POOLING MEN AND WOMEN

Hypothesis family	Coefficient	Estimate	p-value	Family p	Adj. p
Contact	Neighborhood pilgrimage decile	0.038	<0.001	<0.001	<0.001
Economic	Income sufficiency	-0.070	0.009	0.044	0.044
Economic	Employment	0.015	0.763		1.000
Economic	Log mobile residents	-0.035	0.048		0.119
Political	Anti-democracy	0.111	<0.001	<0.001	<0.001
Political	Religion in politics	0.047	0.038		0.063
Religious	Religious practice (overall)	0.017	0.541	0.718	–
Religious	Religious practice (individual)	-0.015	0.718		–
Violence	#SIGACTS $\leq 1$ km	-0.006	0.933	0.718	–
Violence	#SIGACTS $\leq 1.5$ km	-0.094	0.287		–
Violence	#SIGACTS $\leq 2$ km	-0.101	0.324		–
Violence	#SIGACTS $\leq 2.5$ km	-0.093	0.426		–
Violence	#SIGACTS $\leq 3$ km	-0.086	0.499		–

IRAQI RESPONDENTS, DISAGGREGATING BY GENDER

Hypothesis family	Coefficient	Estimate	p-value	Family p	Adj. p
Contact (women)	Neighborhood pilgrimage decile	0.545	<0.001	<0.001	<0.001
Economic (women)	Income sufficiency	-0.069	0.160	0.061	0.343
Economic (women)	Employment	-0.219	0.010		0.044
Economic (women)	Log mobile residents	-0.001	0.983		1.000
Political (women)	Anti-democracy	0.146	<0.001	<0.001	<0.001
Political (women)	Religion in politics	0.079	0.016		0.023
Religious (women)	Religious practice (overall)	0.113	0.022	0.055	0.031
Religious (women)	Religious practice (individual)	-0.098	0.022		0.031
Violence (women)	#SIGACTS $\leq 1$ km	-0.096	0.371	0.078	0.530
Violence (women)	#SIGACTS $\leq 1.5$ km	-0.295	0.013		0.078
Violence (women)	#SIGACTS $\leq 2$ km	-0.314	0.022		0.078
Violence (women)	#SIGACTS $\leq 2.5$ km	-0.272	0.069		0.163
Violence (women)	#SIGACTS $\leq 3$ km	-0.263	0.098		0.176
Contact (men)	Neighborhood pilgrimage decile	0.222	0.268	0.335	–
Economic (men)	Income sufficiency	-0.064	0.302	0.055	0.431
Economic (men)	Employment	0.145	0.030		0.065
Economic (men)	Log mobile residents	-0.074	0.006		0.024
Political (men)	Anti-democracy	0.054	0.200	0.444	–
Political (men)	Religion in politics	-0.004	0.883		–
Religious (men)	Religious practice (overall)	-0.079	0.056	0.078	0.080
Religious (men)	Religious practice (individual)	0.087	0.025		0.072
Violence (men)	#SIGACTS $\leq 1$ km	0.060	0.526	0.635	–
Violence (men)	#SIGACTS $\leq 1.5$ km	0.053	0.614		–
Violence (men)	#SIGACTS $\leq 2$ km	0.058	0.635		–
Violence (men)	#SIGACTS $\leq 2.5$ km	0.070	0.620		–
Violence (men)	#SIGACTS $\leq 3$ km	0.090	0.555		–

Table A29: **Multiple-testing adjustments, Iraq full specification.** Top (bottom) panel reports various  $p$ -values for nested hypothesis testing, following the procedure of Peterson et al. (2015) among all Iraqi respondents (disaggregated by gender). Groups of analyses are organized into higher-level hypothesis families; for each, an adjusted family  $p$ -value is reported based on the raw  $p$ -values of the constituent hypotheses. Among selected hypothesis families, corrected  $p$ -values for constituent hypotheses are also reported.

IRANIAN RESPONDENTS, POOLING MEN AND WOMEN

Hypothesis family	Coefficient	Estimate	<i>p</i> -value	Adj. <i>p</i>
Economic	Income sufficiency	-0.026	0.378	0.378
Political	Anti-democracy	0.038	0.172	0.258
Religious	Religious practice (overall)	-0.119	<0.001	<0.001

IRANIAN RESPONDENTS, DISAGGREGATING BY GENDER

Hypothesis family	Coefficient	Estimate	<i>p</i> -value	Adj. <i>p</i>
Economic (women)	Income sufficiency	-0.026	0.427	0.567
Political (women)	Anti-democracy	-0.055	0.149	0.298
Religious (women)	Religious practice (overall)	0.013	0.689	0.689
Economic (men)	Income sufficiency	-0.021	0.472	0.567
Political (men)	Anti-democracy	0.091	0.009	0.026
Religious (men)	Religious practice (overall)	-0.208	<0.001	<0.001

Table A30: **Multiple-testing adjustments, Iran baseline specification.** The top (bottom) panel reports raw and BH-adjusted *p*-values for each hypothesized driver of sectarian animosity, pooling all Iraqi respondents (disaggregating by gender). Results are based on a single measure for each hypothesized driver.

IRANIAN RESPONDENTS, POOLING MEN AND WOMEN

Hypothesis family	Coefficient	Estimate	<i>p</i> -value	Family <i>p</i>	Adj. <i>p</i>
Economic	Income sufficiency	-0.023	0.459	} <0.001	0.689
Economic	Employment	-0.209	<0.001		<0.001
Political	Anti-democracy	0.039	0.134	} 0.268	–
Political	Religion in politics	0.012	0.707		–
Religious	Religious practice (overall)	-0.132	<0.001	} <0.001	<0.001
Religious	Religious practice (individual)	0.048	0.124		0.187

IRANIAN RESPONDENTS, DISAGGREGATING BY GENDER

Hypothesis family	Coefficient	Estimate	<i>p</i> -value	Family <i>p</i>	Adj. <i>p</i>
Economic (women)	Income sufficiency	-0.063	0.234	} <0.001	0.703
Economic (women)	Employment	-0.289	<0.001		<0.001
Political (women)	Anti-democracy	-0.026	0.615	} 0.404	–
Political (women)	Religion in politics	0.085	0.202		–
Religious (women)	Religious practice (overall)	-0.017	0.740	} 0.254	–
Religious (women)	Religious practice (individual)	-0.073	0.099		–
Economic (men)	Income sufficiency	-0.025	0.486	} 0.160	–
Economic (men)	Employment	-0.177	0.040		–
Political (men)	Anti-democracy	0.067	0.106	} 0.254	–
Political (men)	Religion in politics	-0.024	0.481		–
Religious (men)	Religious practice (overall)	-0.210	<0.001	} <0.001	<0.001
Religious (men)	Religious practice (individual)	0.139	<0.001		<0.001

Table A31: **Multiple-testing adjustments, Iran full specification.** Top (bottom) panel reports various *p*-values for nested hypothesis testing, following the procedure of Peterson et al. (2015) among all Iranian respondents (disaggregated by gender). Groups of analyses are organized into higher-level hypothesis families; for each, an adjusted family *p*-value is reported based on the raw *p*-values of the constituent hypotheses. Among selected hypothesis families, corrected *p*-values for constituent hypotheses are also reported.

IRAQI RESPONDENTS				
Outcome	Subgroup	Estimate	<i>p</i> -value	Adj. <i>p</i>
Sect-based politics	Women	0.080	0.001	0.002
Sect-based politics	Men	0.145	0.000	0.000
Religion in politics	Women	0.138	0.000	0.000
Religion in politics	Men	0.002	0.887	0.887
Gender conservatism	Women	0.190	0.000	0.000
Gender conservatism	Men	0.058	0.042	0.060
Iran intervention	Women	0.189	0.000	0.000
Iran intervention	Men	0.046	0.234	0.260
Shi'a group assistance	Women	0.123	0.000	0.000
Shi'a group assistance	Men	-0.056	0.204	0.255

IRANIAN RESPONDENTS				
Outcome	Subgroup	Estimate	<i>p</i> -value	Adj. <i>p</i>
Religion in politics	Women	0.026	0.556	0.741
Religion in politics	Men	-0.049	0.137	0.467
Gender conservatism	Women	-0.010	0.788	0.788
Gender conservatism	Men	0.112	0.000	0.000
Iran intervention	Women	-0.008	0.769	0.788
Iran intervention	Men	-0.017	0.388	0.741
Shi'a group assistance	Women	-0.065	0.175	0.467
Shi'a group assistance	Men	-0.020	0.541	0.741

Table A32: **Worldviews of Sectarian Iraqis and Iranians.** Reported results reflect the estimated change in the outcome, as calculated from a regression on sectarian animosity (interacted with gender), years of education, income sufficiency, age (linear and quadratic), and province fixed effects. Benjamini and Hochberg (1995) *p*-value adjustment is applied to 10 (8) hypotheses for Iraqi (Iranian) respondents.