

The Friday Effect: How Communal Religious Practice Heightens Exclusionary Attitudes

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Abstract

Does attending communal religious services heighten the tendency to express exclusionary attitudes? Drawing on responses from thousands of Muslims, we identify how the ritual Friday Prayer systematically influences congregants' political and social attitudes. To isolate the independent role of this religious behavior we exploit day-of-the-week variation in survey enumeration, which we assume to be plausibly uncorrelated with likely confounders including self-reported religiosity. In our primary analysis, six variables charting various modes of intolerance each indicate that frequent attenders interviewed on Fridays (i.e., proximate to the weekly communal prayer) were significantly more likely to express sectarian and anti-secular attitudes than their counterparts. To test the potential mechanism behind this tendency, we rely on a controlled comparison between Egyptian and Algerian subgroups, as well as an original survey experiment in Lebanon. Evidence from both analyses is consistent with arguments that elite political messaging embedded in religious rituals spurs much of the observed variation.

Keywords: Religious Identity, Political Tolerance, Natural Experiment, Middle East

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1 Introduction

Are those who express exclusionary preferences motivated, in part, by religious beliefs and practice? Despite their presumed import for a variety of outcomes, isolating the effect of these factors is often quite difficult. In this article we focus on one component of this complex set of attitudes and behaviors: communal religious service. Using the case of Islam’s Friday Prayer, we examine whether and how attending this ubiquitous religious event heightens the tendency to express intolerance across a number of social and political considerations.

Attempts to isolate the specific effect of religious practice on attitude formation are usually complicated by an inability to differentiate between being the *type* of person who frequently attends religious services and the *influence* of the religious service itself. To overcome this methodological pitfall, we leverage a particular feature of the Islamic religious calendar, isolating those survey respondents who happen to be interviewed on Friday, the one day of the week when a public sermon precedes (and is a core component of) the communal prayer year-round. Because the characteristics of respondents approached by survey enumerators on Friday are presumably uncorrelated with likely demographic and attitudinal confounders, including personal religiosity, yet systematically closest to the influence of the mosque-based sermon and communal prayer, we can better identify the causal effect of attending this religious service on our outcomes of interest.

Across six separate dependent variables gauging attitudes towards both religious minorities and the separation of church and state, we find in our primary analysis that those respondents interviewed on Friday express exclusionary attitudes at a significantly higher level than those interviewed on other days. Tellingly, this shift is only present among those respondents who report frequently attending the Friday Prayer (i.e., those who are most likely to have been “treated”). This finding is replicated using additional survey data that expand both the temporal and spatial scope of the analysis. To probe the potential mechanism driving this effect, we examine Arab Barometer data alongside original experimental evidence from Lebanon. These latter analyses support our hypothesis that political entrepreneurs capitalize on embedded religious practices, such as the

communal Friday Prayer, to instrumentalize religious identity toward exclusionary ends.

Our paper proceeds as follows. First, we situate our question and theory in the political psychology literature with an emphasis on the drivers of exclusionary preferences, particularly in terms of social and political intolerance. We then introduce our research design, which underscores the methodological utility of day-of-the-week variation in survey responses. Subsequently, a topline analysis of Arab Barometer Wave Three survey data, coupled with secondary analyses of additional cross-national datasets, highlights the independent effect of religious practice on intolerant preferences. Turning to the mechanism driving this observed relationship, a focused comparison of Egypt and Algeria yields evidence consistent with political messaging “piggybacking” on religion’s socio-cultural institutions. An original survey experiment from Lebanon further supports the argument that political messaging embedded within religious sermons primes exclusionary attitudes. Last, our conclusion underscores the study’s empirical and theoretical takeaways as well as implications for survey research in the Islamic world.

2 Literature and Theory

2.1 Exclusionary Attitudes and the Middle East

Exclusionary attitudes broadly encompass “prejudice toward out-groups and opposition to the policies that promote their well-being” (Kalla and Broockman 2020). Given the breadth of preferences that may fall under this configuration, scholars have generally opted to go down the conceptual ladder in order to differentiate between meaningful subtypes (Collier and Levitsky 1997). More specifically, researchers tend to code exclusionary attitudes (depending on the particular form they take) as different modes of intolerance.

In everyday parlance, tolerance often connotes an acceptance, or even appreciation of different groups and ideas. This conception is at the heart of claims that society today is more tolerant than it once was in previous decades (e.g., *The Economist* 2015). In the American context, for example, proponents of this view often point to the steady reduction in overt racism since the Civil Rights era

and the more recent (and more dramatic) shift in attitudes toward LGBTQ individuals. In general, scholars tend to group such measures of prejudice under the umbrella of *social* tolerance. An altogether different set of measures and potential outcomes is invoked, however, when we consider *political* tolerance.

Whereas social tolerance is based on affect toward (primarily) racial, ethnic, religious, or sexual minorities, political tolerance is typically defined as the willingness to afford equitable political rights to one's ideological opponents. As a case in point, the latter's systematic study can be traced back to Samuel Stouffer's (1955) seminal work on Americans' readiness to limit communists' rights during the height of McCarthyism. Today "radical" Muslims are frequently the main targets of intolerance (see, e.g., Gibson 2008). Fundamentally, then, political tolerance denotes the capacity to support (begrudgingly or otherwise) the civil liberties of groups that one strongly disagrees with—or even detests. It is this understanding of tolerance that implicates First Amendment rights to freedom of speech and assembly in the United States, and is particularly crucial in settings where political disagreement could devolve into political violence.

Cross-national studies on tolerance in the Middle East, or Muslim-majority countries more generally, are rather limited. The available works by and large examine social tolerance and are typically descriptive in nature (Jamal and Tessler 2008; Tessler, Jamal and Robbins 2012). This focus on social tolerance is present even in studies with more inferential objectives (e.g., Moaddel 2006) or a wider geographic scope (e.g., Sarkissian 2012), and in any case intolerance (at least in its social or political manifestations)¹ is rarely the phenomenon to be explained. One exception to this paucity of research is Spierlings (2014), who models intolerance across five Arab countries using measures of prejudices. Notably for our purposes, Spierlings concludes that "any widespread Islamic influence [on intolerance] is found absent" (2014, 21). In general, however, the insights linking religiosity and this particular subtype of exclusionary attitudes are drawn from the broader

¹See Hoffman (2020) for a recent example of research where *religious* tolerance is the dependent variable.

literature and select country-specific analyses.

2.2 Religiosity and Intolerance

From the earliest studies, scholars have consistently found a link between religious conviction and intolerance. Stouffer's (1955) original results indicated that regular churchgoers were generally less tolerant than those who infrequently attended services or did not attend at all. Subsequent research has added greater nuance to this relationship by examining additional dimensions of religious life, yet the underlying notion of "more religious" mapping to "more intolerant" remained overwhelmingly stable (Nunn, Crockett and Williams 1978; Sullivan, Piereson and Marcus 1982; McClosky and Brill-Scheuer 1983).

Despite numerous studies replicating Stouffer's initial finding linking frequent attendance at religious services with intolerance, disagreement persists over how to measure and account for the attitudinal and behavioral effects of religiosity on tolerance judgments. Notably, scholars have demonstrated that some key prior findings are effectively measurement artifacts rather than genuine representations of underlying attitudes (Busch 1998). Others introduced measurement techniques to the study of tolerance that unearth heterogeneous effects across religious belief, behavior, and belonging (e.g. structural equation modeling (Eisenstein 2006) or propensity score matching (Burge 2013)).

This pattern of inconclusive results also holds for the few studies of Muslim attitudes that contain dedicated political tolerance batteries, as well. At one end of the spectrum, Djupe and Calfano (2012) find that among American Muslims, Qur'an literalism and increased mosque attendance both correlate with intolerance while, at the other end, Verkuyten et al. (2014) report that religious identification *increases* tolerance among their sample of Muslims in Germany and the Netherlands. Partially countering both these findings, Fletcher and Sergeyev's (2002) analysis shows no discernible link between "Islamic religious beliefs" and tolerance levels among Kyrgyz Muslims. Similarly, Hassan and Shalaby (2018) find that the importance of religion in one's life is unrelated to Egyptians' (rather high) levels of political intolerance. Along these same lines, Chouhoud

(2019) finds that neither prayer frequency nor mosque attendance (i.e., the typical measures of religious behavior) are predictive of intolerance among an online sample of American Muslims.

More generally, the mechanism presumably linking religiosity (variably defined) and intolerance remains in question. Some studies, for example, argue that such metrics are merely a proxy for supporting the political positions of one's church (Karpov 2002). For those scholars that do not take the relationship between religious behavior and political attitudes to be merely spurious, one common emphasis is the communal cohesion that frequent church attendance engenders. According to this view, the social sequestration that frequent churchgoers experience tends to limit their access to diverse viewpoints thus creating the conditions for intolerance to take hold (see, e.g., Green et al. (1994), Reimer and Park (2001)). Alternatively, however, Djupe and Calfano (2013) underscore the role of elite communication from the pulpit. In their estimation, clergy have the opportunity to prime values of inclusivity or exclusivity and subsequently alter their congregants' willingness to express tolerance toward disliked groups. These latter insights help guide our expectations around the "Friday Effect" among survey respondents in the Middle East.

2.3 Theorizing the "Friday Effect"

Given the seeming (and seemingly increasing) indeterminacy over the role of religiosity on exclusionary attitudes, the literature would clearly benefit from plausibly isolating the effect of religious behavior. In the Middle East, we argue this identification can be achieved through analysis of what we call survey "Friday effects." In screening the effect of religious behavior in this region, we also take up Djupe and Calfano's call to examine how "religious contexts shape...how people interact with and think about out-groups" (Djupe and Calfano 2013, 9). We contend that the *salat al-jum'ca* (Friday Prayer) alters the cache of considerations from which individuals derive their tolerance judgments. Specifically, elite communication during the weekly sermons can initiate a process that ultimately depresses individuals' tolerance toward out-groups.

Social identity theory (SIT) offers useful insights as to how this dynamic takes shape. First, increased in-group identity leads to added differentiation with out-groups. In turn, out-groups are

viewed with skepticism and may be regarded as threatening to the in-group. As threat perception is perhaps the single strongest determinant of intolerance (particularly threats to the collective), this pathway ultimately leads to preferences that protect and reinforce the in-group while limiting the rights and capabilities of out-groups to impinge on the status quo.

Yet, this deleterious effect on tolerance is not sustained indefinitely, nor is it invariable. Following constructivist arguments in general, and research on ethnicity and politics in particular, we assume that one's identity is multi-layered and situational (Chandra 2006, Fearon and Laitin 2000), though a particular aspect of one's identity may be made particularly salient through a given stimulus. This theoretical expectation aligns in some ways with our research design, borrowing as it does from Zaller's "top of the head" model of survey response. In this case, effects are temporally bounded because they simply bring to the fore certain considerations that subsequently recede into the background as other concerns elbow their way to the top of mind at any given moment (Zaller 1992). This establishes two additional implications which we evaluate below. First, that respondents' level of intolerance will exhibit a decay effect following exposure to the Friday Prayer. Second, that the effect is asymmetric so that those who rarely attend Friday Prayer will not exhibit the same patterns as those who frequently attend.

3 Research Design

We begin from the general observation that individual beliefs and behaviors often modulate based on specific temporal patterns. For example, across Germany, the U.K., and the U.S. happiness, stress, and job satisfaction systematically correlate to days of the week, and in particular to whether individuals are interviewed as the weekend approaches or ends (Tumen and Zeydanli 2014, Stone, Schneider and Harter 2012, Taylor 2006, Akay and Martinsson 2009, Helliwell and Wang 2015). Closer to our specific research question, the Islamic Holy Month of Ramadan induces changes in individuals, including heightening pro-social and cooperative beliefs and behaviors (Akay, Karabulut and Martinsson 2015, 2013, Seyyed, Abraham and Al-Hajji 2005). As the authors of another study note, "the collective enthusiasm derived from Ramadan leads to a height-

ened sense of social identity and greater satisfaction with life for Muslims around the world” (Białkowski, Etebari and Wisniewski 2012, 836).

We build on this logic but identify a more local and ubiquitous Islamic cultural practice: the communal Friday Prayer. This practice is established through both a verse in the Qurʾan as well as later collections of the sayings and doings of Prophet Muhammad (Gaffney 2003, Goitein 1966). Like the five daily prayers, the noon prayer on Friday is considered obligatory, “incumbent on all free adult male Muslims to attend” (Gaffney 2016, 1033). Indeed, gathering with one’s Muslim peers is so “integral to the validity of the ritual” (Katz 2013, 130) that “failure to perform Friday Prayer in a Muslim state context puts at risk the validity of all of one’s other religious duties and ultimately excludes the individual from community membership” (2012, 177).

Ethnographers in particular, have hinted at how this bedrock cultural event influences believers’ interactions with each other (Gaffney 1994). In his study of preaching in a Jordanian village, for example, Richard Antoun observed that Friday Prayer seemed to change the behaviors of the townspeople. However he did not pursue his investigation further, claiming that “such observed efficient causal chains are hard to come by” (1989, 141). However, marrying these ethnographic insights with the logic of experimentation discussed above offers a chance to systematically identify Antoun’s suspected “efficient causal chains.”

Our primary data come from the Third (2012-2014) Wave of the Arab Barometer (<http://www.arabbarometer.org>). The Third Wave consists of over 14,000 respondents in 12 countries: Algeria, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Palestine, Sudan, Tunisia, and Yemen.² We use the Third Wave because our main interest is not only tracking the shift in exclusionary attitudes, but observing how these manifest in specific policy preferences. Here the timing of the Third Wave provides a somewhat unique opportunity because it coincided with an unprecedented period of political openness and mobilization in several Arab countries (2012-2014). In particular, because citizens in some of these countries were fully immersed in

²In Jordan no interviews were carried out on Friday, while in Iraq, only a few were.

debates over the content of constitutions and an ever-shifting electoral landscape, several key questions allow us to track the extent to which intolerant attitudes manifest in both the personal and the public realm.

We also use the Fifth Wave of the Arab Barometer to identify if the effects replicate and persist beyond the 2012-2014 moment, even as we note that fewer relevant dependent variables are available. This Wave, the most recent (2018-2019), contains over 26,000 respondents from the same countries as the Third Wave.

Our key independent variable is the day of the week upon which a respondent is approached by a survey enumerator. This is valuable for our particular research question because it is plausibly exogenous to likely confounders. Put differently, the probability that an enumerator visits a given house on a given day is likely uncorrelated with any religious characteristics of that household. This assumption allows us to infer that exposure to the communal Friday Prayer is the principal driver of differences in the expression of exclusionary attitudes among our sample.

There is one additional caveat to our identification strategy. In experimental terms, the Friday interview is a rough proxy for assignment to “treatment” group (i.e. those most recently exposed to the Friday Prayer). This is potentially problematic because some portion of the Friday respondents surely did not—for whatever reason—actually visit the mosque and thus they did not “comply” with the treatment (and vice-versa). In some sense, the following analysis is based on an Intention To Treat (ITT) framework because the groups plausibly include various forms of non-compliance. In the presence of a “true” effect, this type of non-compliance will generally produce conservative effect estimates by biasing towards zero (Newell 1992).³

We can partially account for this limitation by using respondents’ self-reported frequency of

³While convention is to interview following the prayer, the same reasoning applies here. Regrettably, neither the Arab Barometer nor the Lebanon survey described below recorded the specific *time* at which each interview was conducted, so we do not know which respondents in the “Friday” category were interviewed *after* the Friday Prayer had taken place. To the extent that our Friday respondents included both pre- and post-Prayer interviews, it biases our results towards no

attendance at religious service. Interacting this frequency variable with the Friday dummy should be informative. Specifically, Friday interviewees who also report they frequently attend religious service would be the most likely in the sample to have visited the mosque for Friday Prayer (most likely compliers). In contrast, those Friday interviewees who were infrequent attenders would be less likely to attend the Friday Prayer (most likely non-compliers), and thus less susceptible to attitudinal shifts.

4 Measuring Exclusionary Attitudes

Our key objective in this paper is to isolate the effect of attending communal religious services on exclusionary attitudes. We measure the latter through six separate dependent variables in Wave Three of the Arab Barometer and four dependent variables in Wave Five (our dependent variables are not consistent across the waves due to differences in which questions were asked in each survey)⁴:

Wave Three:

- Q812a_2 As you may know, Egypt, Tunisia, Yemen, and Libya are currently in the phase of drafting new constitutions. Considering your own country's constitution, what is the importance of the constitution in **insuring equal rights between Muslims and non-Muslims?**
- Q607_2 Extent of agreement/disagreement: In a Muslim country, **non-Muslims should enjoy less political rights than Muslims.**
- Q609_7 Extent of agreement/disagreement: **Religious minorities such as Christians and Shi'a have the right to practice their religion freely.**
- Q606_4 Extent of agreement/disagreement: **Religious practices are private and should be separated from social and political life.**

effect.

⁴All dependent variables in our Arab Barometer analyses have been re-scaled to range from 0-1 for ease of interpretation and comparison

Q606_6 Extent of agreement/disagreement: **Mosques and churches should not be used for election campaigning.**

Q606_5 Extent of agreement/disagreement: **Religious associations and institutions (excluding political parties) should not influence voters' decisions in elections.**

Wave Five:

Q607_2 Extent of agreement/disagreement: In a Muslim country, **non-Muslims should enjoy less political rights than Muslims.**

Q606_4 Extent of agreement/disagreement: **Religious practices are private and should be separated from social and political life.**

Q606_1 Extent of agreement/disagreement: **Religious leaders should not interfere in voters' decisions in elections.**

Q505_A Which of the following two statements is the closest to your point of view? Choose statement 1 or statement 2. *Statement 1: I prefer a religious political party over a non-religious political party;* *Statement 2: I prefer a non-religious political party over a religious political party.*

Each of the above items in some way gauge respondents' preference for exclusion in a manner that is contextually relevant to the Middle East. The first three variables from Wave Three and first variable from Wave Five reflect political intolerance in that each invokes the limiting of a groups' civil liberties solely on the basis of their group affiliation. In prior studies, these questions may simply be coded as "anti-sectarian," but political tolerance is clearly the higher order concept at work here. Sectarianism is merely the mode of intolerance, but it is functionally similar to other modes of intolerance based on, for example, political ideology (e.g., anti-communism in America) or ethnicity (e.g., anti-Kurdish attitudes in Turkey). Put in terms of conceptual hierarchies (Collier and Levitsky 1997), sectarianism is merely a differentiated subtype of political intolerance, which in turn is a differentiated subtype of exclusionary attitudes. To be sure, the structure of these particular questions is less than optimal as ideally we would want some measure of antipathy toward the target group to precede the question gauging a respondent's willingness to extend civil

liberties to that group.⁵ However, the one publicly available cross-national dataset that features a dedicated political tolerance battery (the third wave of the World Values Survey) does not have the geographic and demographic scope needed to examine our research questions (this particular wave included only three Muslim-majority countries), so these items in the Arab Barometer offer the next best option.

The remaining questions from both waves arguably straddle the line between social and political tolerance. A preference for the separation (or, alternatively, intermingling) of church and state is acutely germane to the prospect of peaceful political competition in the Middle East where a majoritarian approach to religion and politics can easily lead to the curtailing of minority rights or violent conflict. At minimum, we would argue that anti-secular opinions in this context are integrally linked to the higher order exclusionary attitudes at the heart of our study, even if the particular sub-types of these attitudes are less discernible.

Each of these questions is scaled such that a higher score represents a tolerant or non-sectarian response. As an initial test of the “Friday effect,” for each of these variables, we fit an ordinary least-squares regression predicting our outcomes as a function of age, gender, employment status, education, and, importantly, frequency of *personal* prayer.⁶ It is particularly important to control for personal prayer in order to isolate the effects of the *communal* experience that we focus on in this paper. Country fixed effects absorb any cross-national differences, and we use country-level varying coefficients on income to account for the fact that income is measured on a different scale

⁵Notably, the General Social Survey in the United States still gauges political tolerance through the so-called “fixed-group” method (i.e., by asking respondents about their willingness to allow certain disliked groups to exercise their civil liberties without first asking if respondents themselves dislike that group), and so the approach is still considered sufficiently valid.

⁶The inclusion of an education variable drops countries from the analysis; however, dropping the variable and the subsequent increase in sample size does not materially affect the results. Contact the authors for details.

in each country.⁷

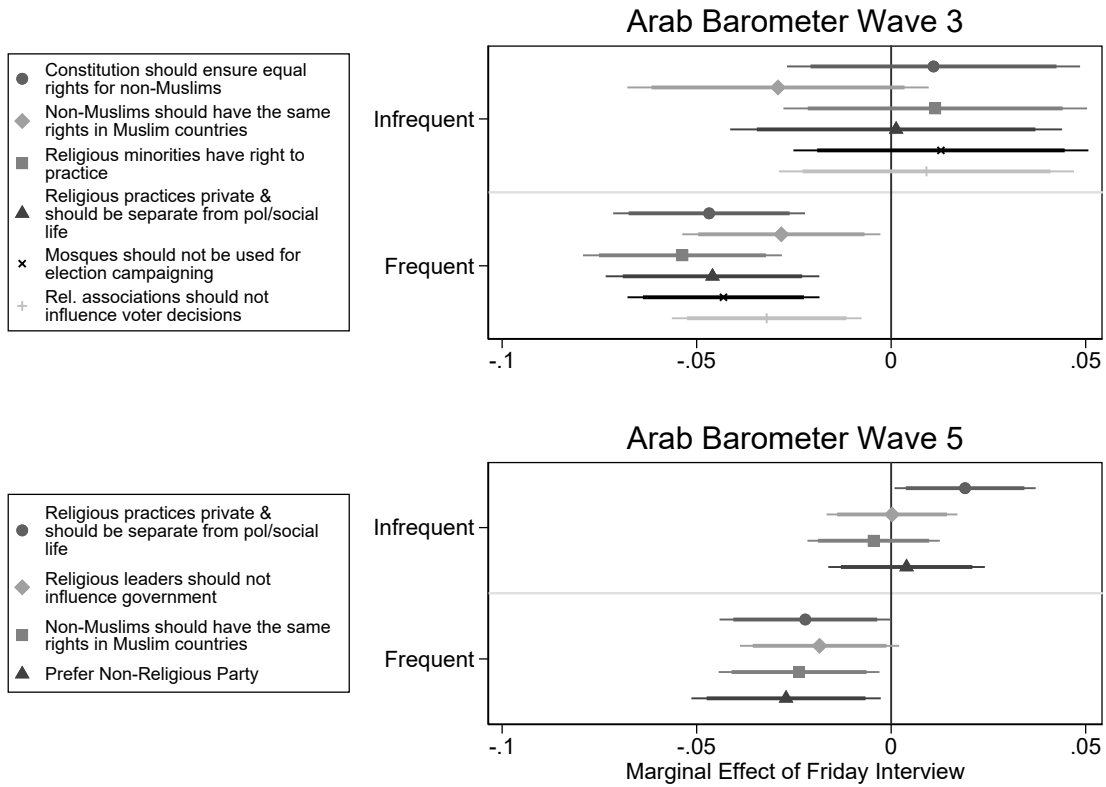
5 Results

Figure 1 displays the marginal effect of being interviewed on a Friday on each of these dependent variables, separating frequent attenders from those who do not attend frequently. Estimates of coefficients and standard errors for each model are available in the appendix. The results display a clear pattern: among frequent attenders, being interviewed on a Friday increases the probability of expressing an exclusionary attitude (represented by *negative* coefficients) by roughly 0.02 to 0.06 points on the 0-1 scale depending on the question.⁸ Each of these six effects is statistically significant at the $p < 0.05$ level or better for all of the questions in Wave Three, and all but one of the questions in Wave Five ($p = 0.078$ for the remaining question). These effects are sizeable given the subtlety of the Friday “treatment.” To take one example, for the question regarding religious minorities’ right to practice, the size of the Friday effect is comparable to the effect of moving from the maximum value to the minimum value on the 7-point education scale. On the other hand, among non-attenders, no statistically meaningful differences are present when comparing respondents interviewed on Fridays versus other days of the week with one exception in Wave Five, which is in the opposite direction and is likely due to chance. These findings are intuitive given our research design: for non-attenders, being interviewed on Friday is likely to be generally indistinguishable from being interviewed other days of the week (i.e., these respondents most likely did not receive the theorized treatment of mosque attendance).

⁷Note that model specifications differ slightly between the two waves because certain questions were asked differently in Wave Five than they had been in Wave Three.

⁸We note that questions regarding sectarianism are vulnerable to social desirability bias (Brooke 2017). However, to the extent that those individuals who are strategically inflating or deflating their answers to enumerators are not systematically correlated with the day-of-the-week on which they are interviewed, it is less relevant for our research question.

Figure 1: “Friday Effect,” by Religious Attendance (Arab Barometer)



Note: Bars indicate 90% and 95% confidence intervals.

Interestingly, these six dependent variables appear to capture different phenomena. Cronbach’s α for these variables is only 0.62 in Wave Three and 0.52 in Wave Five, indicating a somewhat low level of internal consistency between the questions.⁹ Factor analysis of these six items suggests a similar conclusion: each of the six items has a uniqueness score of 0.52 higher, with most being significantly higher. We interpret these results as indicating that the “Friday effect” is present for

⁹Internal consistency is not much higher if we divide the Wave Three questions into “sectarian” and “religious-political” groups: for the three sectarian questions, $\alpha = 0.56$, and for the three religious-political questions, $\alpha = 0.66$, below the conventional standards for determining internal consistency.

a variety of attitudes regarding sectarianism, religion, and politics, even though these attitudes are not necessarily highly correlated with each other.

We also conducted a variety of out-of-sample tests, robustness checks, and various disaggregated analyses. Importantly, we see that the general exclusionary effect replicates in the separate sample of Wave Five of the Arab Barometer. This should assuage concerns that the effect is due to some idiosyncrasy of the administration of the Third Wave surveys, or confined to that particular time period.¹⁰

The precise estimates are available in the appendix, but all of the tests indicate that our findings are not sensitive to model specifications. Figure A1 includes political party dummy variables, and Figure A2 controls for trust in Islamist parties, accounting for the possibility that support for political Islam or partisan affiliations may be confounding factors. Figures A3 and A4 control for life satisfaction and economic satisfaction, respectively, as proxies for potential day-of-the-week effects on mood. Figures A5 and A6 estimate the effects separately by gender. While the effects for women are considerably noisier due to the much smaller number of women who attend mosque regularly (in Wave Five, 68% of men reported frequently attending mosque, compared to just 18% of women), the general pattern holds for both men and women.

Figure A7 investigates a decay effect, presenting estimates for each day of the week individually. While an increase in exclusionary preferences is certainly evident on Fridays and attenuates throughout the subsequent days in a manner consistent with the “top of the head” model (Zaller 1992), we interpret these results cautiously due to the small number of responses on any given day. Finally, Figures A8 and A9 test our theory in the broader Muslim World by using the World Values Survey. Although relevant questions are more sparse and less consistently deployed, these figures

¹⁰At the same time, the effects in Wave Five do appear muted relative to the Third Wave. One potential explanation, elaborated on below, is simply that the context in which the Third Wave was administered (2012-2014) was more volatile in terms of identity-based mobilization, even while a general effect abides even in the more restrictive political environment of the Fifth Wave.

indicate that the “Friday Effect” is present in Muslim countries across the world, not only in Arab countries.¹¹ As we have noted, however, the Arab Spring environment reflected in the Third Wave of the Arab Barometer presented a uniquely hospitable environment for Friday Effects, while the Fifth Wave of the Arab Barometer and the broader World Values Survey occurred in a different context.

It is important to consider these findings in light of our research design. We specifically assume that the only reason those respondents interviewed on Friday would be systematically different from those interviewed on other days of the week is their recent exposure to the communal Friday Prayer. This helps to isolate the independent effect of exposure to Friday Prayer itself, separating it from such likely confounders as personal religiosity. Yet while we can say with some confidence that exposure to this event has an effect on the tendency to express exclusionary preferences to social and political questions, the above analysis is silent as to *why* this is occurring. Below, we leverage further data from the Arab Barometer, as well as from an original survey experiment in Lebanon, to gain insights into the mechanism at work.

6 Isolating Mechanisms: Politics or Practice?

Particularly among those who report regularly visiting the mosque, Muslim respondents interviewed on Friday expressed systematically higher exclusionary attitudes compared to those interviewed on other days of the week. While the plausible exogeneity of the Friday interview should help alleviate concerns about confounding, it still leaves the precise mechanism through which the Friday Prayer heightens intolerance uninvestigated. The literature suggests two mechanisms. In the first, which we call a *solidarity-based mechanism*, it is the passive act of communal prayer, of being surrounded by members of a religious community, which solidifies group boundaries. The

¹¹Whereas the third wave of the WVS, referenced in an earlier section, only surveyed three Muslim-majority countries, this latest wave included a dozen such states thus making it amenable to our analysis.

second mechanism, which we refer to as *content-based*, suggests that the substantive content and orientation of elite messages delivered during religious practice render salient group boundaries. The results of the analysis in Figure 1 is consistent with both mechanisms. In this section we leverage cross-national variation in state capacity to regulate religion to attempt to adjudicate between them.

A variety of research remarks on the emotional side of the Friday Prayer, and the sermon in particular, describing the *khuṭba* as a “rhetorical discourse par excellence” (Errihani 2011, 381), a “paradigmatic rhetorical form” (Hirschkind 2001, 7), or a “privileged rhetorical event” (Gaffney 1994, 122). As Hirschkind elaborates, “a well crafted [Friday] sermon is understood to evoke in the listener the affective dispositions that underlie ethical conduct and reasoning, and which, through repeated listening, may become sedimented in the listener’s character” (2001, 13-14). Wiktorowicz also highlights the importance of the communal nature of the event, and in particular the ways that the Friday *khuṭba* generates feelings of solidarity:

The *khuṭba* is a corporate experience whereby individual Muslims reinvigorate collective ties through their mutual participation as audience. Even individuals who do not pray during the week often attend the Friday sermon, a weekly religious ritual that reconnects Muslims to their obligations and duties as part of the *umma* (2001, 56).

The particular emotional content of the shared ritual itself, regardless of any specific message or actions of the speaker, might contribute to heightened communal identity. Correspondingly, exclusionary attitudes of those proximate to such an event may harden.

Secondly, across a variety of contexts authors have identified how elites strategically manipulate ethnic and religious identities as powerful tool of political mobilization (Wilkinson 2006, Fearon and Laitin 2000, Brass 1997). Through leveraging propaganda and making emotional and symbolic appeals, these entrepreneurs inflame or dampen pre-existing cleavages and transform distributional conflicts into potentially more profitable identity-based ones (Thompson 2007, Snyder 2000, Bozic-Roberson 2004, Kapferer 2011, Petersen 2002, Horowitz 2001, Prunier 1995). The mosque, and in particular the way that the speaker at the communal Friday Prayer can firmly anchor themselves in the sediment of religious belief and practice, is ideally placed to maximize the

effect of such appeals. Prayer leaders hold symbolic power that allows them to “influence both the political and social life of the community and not simply perform rituals” (Chhibber and Sekhon 2016, 7). As Antoun surmises, in his aforementioned ethnography of a Jordanian preacher:

Calls to action delivered on a regular basis in an optimally legitimate cultural and social context- in the mosque, face-to-face on the occasion of the Friday congregational prayer with the sermon punctuated by numerous religious prayer formulae...cannot but be persuasive for a substantial part of the congregation (1989, 141).

These arguments establish a second possible mechanism. Specifically, the occasion of the Friday Prayer may offer political entrepreneurs an opportunity to heighten feelings of religious chauvinism and prejudice in order to aggrandize their own influence, either within their particular social networks or in their interactions with political authorities or opponents. In contrast to the solidarity based mechanism outlined above, this content-based argument locates the source of the increasing in-group sentiment in the particular messages delivered by elites at the Friday Prayer itself.

It is important to note that in our data these mechanisms are not directly observable. However, we can test implications of either by turning to macro-level variables and, in particular, the degree to which states included in the Arab Barometer exercise control over religious practice. The Third Wave of the Barometer is valuable because it encompasses cross-national variation related to the Arab Spring uprisings, in which some of the surveyed populations had successfully dislodged incumbents, while others had not (Brownlee, Masoud and Reynolds 2015). We rely on the fact that the relatively sudden onset of more open electoral competition in some cases—limited as it was in many cases—has been noted to establish the conditions under which ethnic, sectarian, and nationalist appeals flourish (Snyder 2000, Snyder and Ballentine 1996). In part, this is because religion’s potent mobilizational capacity, through repertoires, institutions, symbols, and emotional content is often suppressed (or monopolized) by non-democratic regimes, but suddenly comes “up for grabs” when these regimes collapse. Alternatively, the solidarity-based mechanism presumably operates much more subtly, based on the ritual and performance of religion itself, rather than the specific content or political context of the message. Because religious practice itself is harder to

regulate than the content of religious appeals, the observed Friday effect should operate more or less independently from the level of state control over religion.

We select two country cases with differing values on the independent variable: capacity to control the practice of religion. On the one hand, some states often tightly and relatively effectively shape religious practice: making clerics employees of state bureaucracies, formulating and reviewing official sermons, monitoring funding and construction of houses of worship, and closely regulating religious discourse and interpretation. On this count, we expect that Algeria—a robust, rent-fueled military regime with a history of antagonism towards Islamist movements—would have both a higher motivation and capacity to control the use of the Friday sermon for explicit political mobilization. Indeed, as Mecham notes, the growth of largely unregulated mosques was an important factor in the emergence of an Islamist opposition throughout the 1980s, leading to a tightening of state control on the eve of the country’s civil war (2014, 204-206). In the 1990s and into the 2000s this tightening continued through a variety of measured dealing with the construction of mosques, training and employment of imams, regulation of funding, and oversight of sermons.¹² As the U.S. Department of State summarizes:

With the exception of daily prayers, which are permissible anywhere, Islamic services may take place only in state-sanctioned mosques. Friday Prayers are further limited to certain specified mosques...The penal code states only government-authorized imams, whom the state hires and trains, may lead prayers in mosques and penalizes anyone else who preaches in a mosque with a fine of up to 100,000 dinars (\$840) and a prison sentence of one to three years. Fines as high as 200,000 dinars (\$1,700) and prison sentences of three to five years are stipulated for any person, including government-authorized imams, who acts “against the noble nature of the mosque” or in a manner “likely to offend public cohesion, as determined by a judge.”¹³

¹²For overviews of these efforts, see <https://www.hudson.org/research/13934-political-islam-in-post-conflict-algeria> and <https://www.fpri.org/article/2018/09/algerias-religious-landscape-a-balancing-act/> and <https://crsreports.congress.gov/product/pdf/IF/IF11116>.

¹³<https://www.state.gov/reports/2019-report-on-international-religious-freedom/>

Of course, the effectiveness of these controls at preventing the politicization of religion should not be overstated.¹⁴ However, our expectation is that *in general*, the Algerian state possessed during the time of the Arab Barometer’s Third Wave both the will and the capacity to limit blatant Friday Prayer-based politicization, particularly in the face of ongoing mobilization in the region that posed an acute threat to the regime.

In contrast, Egypt effectively lacked the capacity in 2013 to prevent the politicization of the mosque (Masoud 2014). Not only had the 2011 uprising and subsequent shock to regime resources pushed back the explicit control over associational life that had marked the Mubarak era, the onset of a series of high-stakes “founding elections” dramatically upped the spoils of political victory. All parties— but especially Islamists— seized the opportunity to organize campaigns around houses of worship.¹⁵ In fact, during time the Arab Barometer was in the field the Muslim Brotherhood was actively using the country’s religious infrastructure for their own extensive “Together We Build Egypt” election campaign (Brooke 2019).

We do not claim that Egyptian mosques during this period were completely unregulated—not only was this activity illegal, it was often opposed by a number of Egyptian civil society and citizen groups. In general, however, the combination of considerable incentives for groups to politicize this infrastructure, with the lack of state capacity (and perhaps will) to enforce laws on the books,

algeria/.

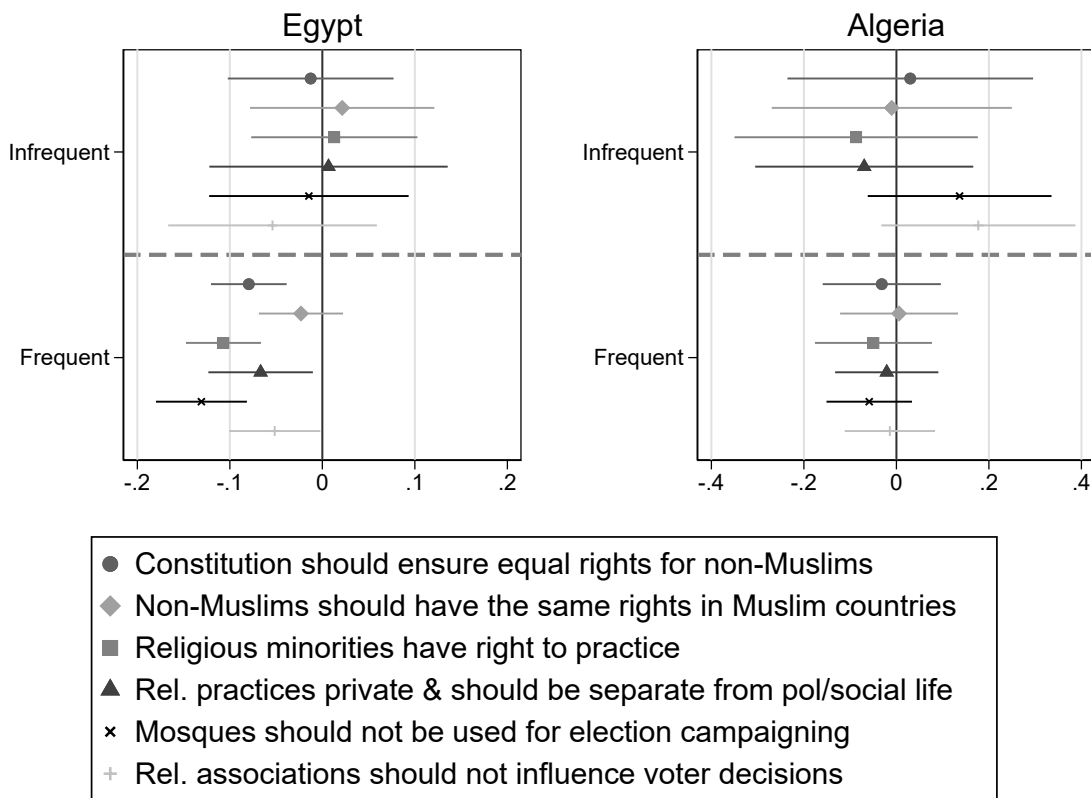
¹⁴<https://carnegie-mec.org/2018/03/13/state-owned-islam-in-algeria-faces-s>

¹⁵Richard Spencer, “Egypt Decides Between Army and Mosque,” *The Telegraph*, May 22, 2012. Available online at <http://www.telegraph.co.uk/news/worldnews/africaandindianocean/egypt/9283646/Egypt-decides-between-army-andmosque.html>; Samuel Tadros, “Egypt’s Elections: Why the Islamists Won,” *World Affairs*, March/April 2012. Available online at: <http://www.worldaffairsjournal.org/article/egypt%E2%80%99s-elections-why-islamists-won>.

makes Friday Prayer-based politicization in this case relatively more likely.

Figure 2 presents our six variables for Egypt and Algeria, again cutting the sample between frequent and infrequent attenders. To explicitly state our expectations, Egypt and Algeria were relatively similar across a variety of factors, yet differed in terms of state ability to control religion during this period. In Egypt, lower levels of state control over mosques should heighten the effects of elite-based mobilization efforts there, while the opposite should obtain in Algeria. If, in contrast, both Algerian and Egyptian respondents display heightened salience of religious identities on Friday despite this difference in capacity, it would be evidence that the passive, solidarity-based mechanism related to communal practice itself is at work.

Figure 2: “Friday Effect” in Egypt vs. Algeria (Arab Barometer Wave Three)



While such a comparison is inevitably limited, the pattern in the country-level data is consistent with an empirical implication of the “political” mechanism outlined above. For none of the six measures do Algerian respondents who report practicing frequently display a detectable response

for being interviewed on Friday. Yet for five of the six questions Egyptian frequent practitioners show strong differences ($p < 0.001$ for questions about enshrining equal rights for non-Muslims in the constitution, giving religious minorities the right to practice, and the idea that mosques should not be used for campaigning, respectively, and $p < 0.05$ for the questions about religious practice being a private matter and religious leaders influencing votes). The largely non-political “solidarity” mechanism would generally not predict these cross-case differences; religious *practice*, in terms of the mechanism of the congregational prayer, should be largely similar across the two countries. We argue that the critical difference lies in state capacity to control religion, and thus the ability of state elites to police the content of sermons. While Algeria’s robust authoritarianism and embedded wariness of Islamist mobilization of religious infrastructure bred tighter control over institutions such as the Friday Prayer, the breakdown of state authority and heightened political incentives in Egypt rendered the mosque, and the Friday Prayer in particular, a valuable “mobilization resource” for political entrepreneurs.

7 Experimental Evidence from Lebanon

Egypt and Algeria were both selected for extreme values on the independent variable of interest, state capacity to control religion, to set up a type “most likely” test of the competing mechanisms. In this section we present original experimental evidence from Lebanon to further trace out the causal pathway. Lebanon displays some similarity with Egypt c. 2013: not only is state control of religion fairly weak, institutions reinforce sectarian identities, which creates conditions where mosque-based agitation is a potentially attractive strategy for elites. At the same time, Lebanon may be a “hard case” in the sense that the prominence of religious identity in everyday life could mean that the “Friday effect” will be trivial or even absent.

The Lebanon data comes from an original survey conducted in August 2018. This survey includes a representative sample of the Lebanese Muslim population, stratified by sect, including 1,000 respondents divided evenly between Sunni and Shi’a. The sample was constructed using a multi-stage area probability sample covering all 26 of Lebanon’s districts in order to ensure proper

representation. Surveys were conducted face-to-face using traditional pen-and-paper methods. Consistent with other public opinion studies in the region, this survey achieved a high response rate (86%). For the original survey in Lebanon¹⁶, respondents were immediately informed that the survey was part of a scientific research project, that they had been randomly selected to participate, and that all information provided would be kept absolutely confidential (see Appendix for introductory script). No part of the survey employed deception, and the survey does not plausibly risk having a negative impact on respondents or political processes. Respondents were not compensated because in a country where a substantial share of the population exchanges political support for monetary goods (see Corstange 2012), such a proposal could easily be seen as a quid pro quo and would raise suspicion in potential participants. In an environment where politicians are highly unresponsive to citizens' wishes, the opportunity to express political opinions is typically met with great enthusiasm, as demonstrated by the survey's extremely high response rate.

The survey experiment employed a question-as-treatment technique in which respondents were randomly assigned to one of the following groups¹⁷:

- **Control** Group: Proceed to next question
- **Feeling** Treatment Group: "In a few sentences, please describe how praying at mosque makes you feel"
- **Political** Treatment Group: "In a few sentences, please describe any political or sectarian messages you have heard at mosque"
- **Experience** Treatment Group: "In a few sentences, please describe your experiences of praying at mosque."

¹⁶IRB Protocol Number blinded for peer review.

¹⁷For reasons described below (namely, that the "Feeling" and "Political" treatments bundle a presumed mechanism with the treatment itself), we focus here on the "Experience" treatment as compared to the control group.

In the Arab Barometer data the content of sermons was of course unobservable. Yet our experiment offers a window into this question, so we produce a few examples of responses to the “political” treatment that help to illustrate the type of identity-heightening content appearing in some of these sermons. Respondents’ answers to this prompt often described explicitly sectarian appeals and frequently referred to the need for sectarian unity and cooperation in a way that would heighten communal boundaries.¹⁸ For instance, a respondent from North Lebanon reported hearing in his mosque that “you should not vote for a candidate from a different sect.” Likewise, a woman from South Lebanon described a message emphasizing the need to “maintain the sect and not allow our sects’ rights to be harmed,” and a man from Beirut reported hearing the need for “love and tolerance for members of the sect and solidarity in order to advance it.” While not systematic, these examples point out that the explicit political-sectarian content of the messaging, rather than the general ritualistic practice itself, was absorbed by at least some portion of the congregants.

Our Lebanon experiment was designed to probe further the specific political mechanism. In this case, a prime was designed to blandly provoke among a third group of respondents a recollection of the respondent’s visits to the mosque for Friday Prayer: “In a few sentences, please describe your experiences of praying at mosque.” In other words, unlike the “Feelings” or “Political” treatment, this prime does not bundle a supposed mechanism with a general recollection of the respondent’s mosque-going experience.

Prior analysis of the Arab Barometer data suggests that political messaging was driving an observed spike in exclusionary attitudes. If political messaging were indeed occurring at the mosque, one implication would be that a brief prime about the mosque-going experience *in general* would provoke stronger recollection of political discussions *at that Friday Prayer*. To test this implication, we constructed a three-question index consisting of the following items (Cronbach’s $\alpha = 0.81$):

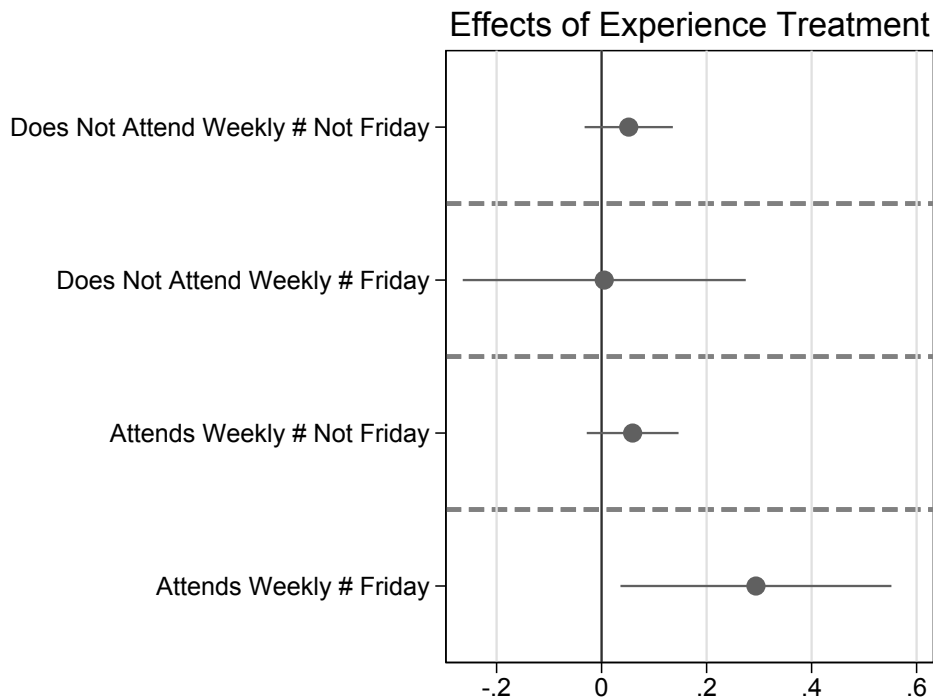
- How often do you discuss politics with members of your mosque?

¹⁸Some of these quotes have been lightly edited for grammatical purposes.

- How often are political issues discussed in sermons at your mosque?
- How often are other religions/sects discussed in sermons at your mosque?

Each of these questions allowed for three answers: Never, Sometimes, or Often. Figure 3 reports the results, where the index has been re-scaled to range from 0-1 for the purposes of interpretation. Again, note that respondents in this group are compared against the null control.

Figure 3: Treatment Effects on “Political Messaging”



A simple and general prime designed to remind respondents of their experience at the Friday Prayer makes weekly attenders interviewed on Fridays much more attuned to the political messages present in their places of worship. Among attenders interviewed on Fridays, the effect was substantial in real terms (roughly .29 on a scale from 0-1) and statistically significant ($p < .05$). This effect is not present for non-Friday interviews, when the question is likely to prime a more distant and/or less specific experience. Furthermore, like all prior tests, there does not appear to be a statistically detectable effect among those respondents who do not attend weekly religious

practice. Taken together, the evidence from a custom experiment in Lebanon generally supports our findings from the off-the-shelf Arab Barometer data: religious practice itself seems to heighten sectarian attitudes. Furthermore, the results also suggest that a pulpit-based “political” mechanism is particularly powerful: religious and political elites seem to be able to leverage the unique prestige of the pulpit to heighten these feelings among congregants.

8 Conclusion

Religiosity is consequential for a wide variety of social, political, and economic outcomes, yet the conditions under which these beliefs and practices are marshalled to exclusionary ends is less understood. In this paper we focused on how the Islamic Friday Prayer heightens the tendency to express attitudes that are deleterious to peaceful coexistence in the context of the Middle East and North Africa. We tested this argument by exploiting the assignment of survey respondents to day-of-the-week, which we argue is plausibly exogenous to a variety of demographic and attitudinal confounders that would frustrate a correlational analysis. Across a variety of attitudinal outcomes related to sectarianism and the willingness to limit political freedoms (i.e., social and political intolerance), we identify a consistent effect: individuals who identify as frequent attenders who are also interviewed on Friday systematically express exclusionary attitudes at a higher rate than their counterparts interviewed on other days of the week. Additional off-the-shelf survey products suggest that the effect is widespread.

Our quasi-experimental design usefully identifies the effect of religious practice amidst obvious confounders and selection effects, but it is silent towards mechanisms. To gain insights into *why* the Friday Prayer seemingly primes exclusionary attitudes we leverage Arab Barometer data and an original survey experiment. A comparison between respondents in Egypt, where state capacity to control religious was quite weak at the time of the survey, to those in Algeria, where state capacity was relatively stronger, showed a much stronger Friday effect in Egypt. We take this as consistent with the argument that entrepreneurial elite messaging was more prevalent in Egypt. In Lebanon, not only did an explicitly “political” prime more strongly influence sectarian identity than a feeling-

based prime, a bland prime about a recent mosque experience resulted in increasing perception that politics was discussed at the mosque. Open ended descriptions about the mosque experience helped further contextualize the role of sectarian appeals coincident with religious practice.

Following classic literature in American politics on the formation and retrieval of attitudes, we have identified a substantial deleterious effect of mosque attendance on religious tolerance, broadly conceived. Reassuringly, and in line with that literature, across the entire sample the change is relatively short-lived, dissipating across the subsequent days. However, further research should consider possible individual and contextual variation that influences this effect, and in particular identifying the differences in *duration* that we suspect are contingent on both individual and contextual factors.

On a more methodological note, the results suggest the importance of monitoring day-of-the-week effects on certain outcomes of interest in large-scale survey data. The most consistent finding in the above case is the seeming instrumentalization of religious identity caused (presumably) by a visit to the mosque for Friday Prayers. This finding notably cuts across multiple dimensions of religiosity that are potentially interesting to researchers both as independent and dependent variables. Those who work with large scale survey and experimental data have found that factors as simple as the sponsor of a survey (Corstange 2016, 2014) and the gender and dress of enumerators (Blaydes and Gillum 2013, Benstead 2014*a,b*) can skew outcomes. Just as that research recommends making accommodations for these variables in the analysis of micro-level data, the finding that respondents' answers are sensitive to day-of-the-week effects suggests similar adaptations.

Our findings in this study not only have the potential to add precision to the discourse on religion and politics in the Middle East, but also nuance. To emphasize, our analysis went beyond simply asking *whether* religious communal behavior is associated with exclusionary preferences and additionally considered *under what conditions* such a link was operable. In showing that the pathway from religiosity to intolerance in the Middle East is not hardwired but is instead context-dependent, we encourage other scholars to re-examine presumably inherent deficiencies or innate dispositions ascribed to the region and its people.

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Appendix A Supplementary Tables and Figures

Table A1: Summary statistics, Arab Barometer Wave Three

Variable	Mean	Std. Dev.	Min.	Max.	N
Constitution Equal Rights Non-Muslims	0.73	0.31	0	1	13899
Non-Muslims Same Rights in Muslim Countries	0.61	0.3	0	1	13309
Rel. Minorities Have Right to Practice	0.68	0.32	0	1	13659
Rel. Practices are Private	0.59	0.32	0	1	13352
Mosques Shouldn't be Used for Campaigns	0.77	0.27	0	1	13513
Rel. Associations Shouldn't Influence Voters	0.69	0.27	0	1	13306
Attends Always Most	0.67	0.47	0	1	14207
Prayer	0.9	0.2	0	1	13919
Age	37.48	13.71	18	89	14201
Female	1.5	0.5	1	2	14207
Education	4.63	1.63	2	8	11788
Unemployed	2.56	0.5	2	3	14201
Income (Country-Specific)	74770.3	308311.96	0	9000000	8503
Friday	0.12	0.32	0	1	14207

Table A2: Summary statistics, Arab Barometer Wave Five

Variable	Mean	Std. Dev.	Min.	Max.	N
RelPrivateMatter01	0.53	0.33	0	1	22637
ShouldntInfluence01	0.59	0.29	0	1	22165
SameRights01	0.6	0.31	0	1	22329
PreferSecularParty01	0.41	0.33	0	1	19198
AlwaysMost	0.43	0.5	0	1	23365
Prayer01	0.81	0.28	0	1	23435
Female	1.5	0.5	1	2	23623
Education	3.89	1.73	1	7	23622
Employed	0.32	0.47	0	1	23655
IncomeDifficulties	2.66	0.94	1	4	22872
Friday	0.1	0.3	0	1	23655

Table A3: Correlations, Outcome Measures (Arab Barometer Wave Three)

(1)

	ConEqual01	SameRights01	MinorityRight01	PracticesPrivate01	MosquesShouldnt01	ShouldntInfluence01
ConEqual01	1					
SameRights01	0.248	1				
MinorityRight01	0.398	0.250	1			
PracticesPrivate01	0.150	0.100	0.189	1		
MosquesShouldnt01	0.0713	0.122	0.137	0.294	1	
ShouldntInfluence01	0.114	0.114	0.158	0.418	0.518	1

Table A4: Correlations, Outcome Measures (Arab Barometer Wave Five)

	(1)			
	RelPrivateMatter01	ShouldntInfluence01	SameRights01	PreferSecularParty01
RelPrivateMatter01	1			
ShouldntInfluence01	0.211	1		
SameRights01	0.0639	0.190	1	
PreferSecularParty01	0.304	0.296	0.104	1

Table A5: Full Regression Results, Arab Barometer Wave Three

	(1)	(2)	(3)	(4)	(5)	(6)
	ConEqual01	SameRights01	MinorityRight01	PracticesPrivate01	MosquesShouldnt01	ShouldntInfluence01
Friday=1	0.01 (0.02)	-0.03 (0.02)	0.01 (0.02)	0.00 (0.02)	0.01 (0.02)	0.01 (0.02)
AlwaysMost	0.00 (0.01)	0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Friday=1 × AlwaysMost	-0.06** (0.02)	0.00 (0.02)	-0.06*** (0.02)	-0.05* (0.03)	-0.06** (0.02)	-0.04* (0.02)
Prayer01	0.02 (0.02)	-0.03 (0.02)	0.02 (0.02)	-0.11*** (0.02)	0.01 (0.02)	-0.02 (0.02)
Age	0.00*** (0.00)	0.00 (0.00)	0.00*** (0.00)	0.00** (0.00)	0.00 (0.00)	0.00* (0.00)
Female	0.01 (0.01)	0.02** (0.01)	-0.00 (0.01)	-0.00 (0.01)	-0.01 (0.01)	-0.00 (0.01)
Education	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.00 (0.00)	0.01*** (0.00)	0.00 (0.00)
Unemployed	0.01 (0.01)	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)	0.00 (0.01)
2. Egypt	0.40*** (0.03)	0.38*** (0.03)	0.47*** (0.03)	0.24*** (0.03)	0.07*** (0.03)	0.11*** (0.03)
3. Iraq	0.37*** (0.03)	0.32*** (0.03)	0.38*** (0.03)	0.12*** (0.03)	0.05 (0.03)	0.04 (0.03)
4. Jordan	0.36*** (0.03)	0.17*** (0.03)	0.31*** (0.03)	0.04 (0.03)	0.04 (0.03)	0.01 (0.03)
5. Kuwait	0.38*** (0.03)	0.12*** (0.04)	0.37*** (0.04)	0.16*** (0.04)	-0.07** (0.03)	-0.07** (0.03)
6. Lebanon	0.50*** (0.03)	0.37*** (0.03)	0.47*** (0.03)	0.34*** (0.03)	0.09*** (0.03)	0.15*** (0.03)
7. Libya	0.20*** (0.03)	0.10*** (0.03)	0.13*** (0.03)	0.17*** (0.03)	0.04 (0.03)	0.00 (0.03)
8. Morocco	0.19*** (0.03)	0.26*** (0.03)	0.24*** (0.03)	0.02 (0.03)	-0.03 (0.03)	-0.04 (0.03)
9. Palestine	0.34*** (0.03)	0.20*** (0.03)	0.36*** (0.03)	-0.01 (0.03)	-0.08*** (0.03)	-0.06* (0.03)
10. Sudan	0.25*** (0.03)	0.14*** (0.03)	0.23*** (0.03)	-0.06** (0.03)	-0.07*** (0.03)	-0.07** (0.03)
Income	0.00 (0.00)	0.00*** (0.00)	-0.00*** (0.00)	-0.00* (0.00)	-0.00 (0.00)	0.00 (0.00)
2. Egypt × Income	0.00 (0.00)	-0.00* (0.00)	-0.00* (0.00)	-0.00 (0.00)	-0.00** (0.00)	-0.00 (0.00)
3. Iraq × Income	-0.00 (0.00)	-0.00*** (0.00)	0.00*** (0.00)	0.00* (0.00)	0.00 (0.00)	-0.00 (0.00)
4. Jordan × Income	-0.00 (0.00)	-0.00* (0.00)	0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
5. Kuwait × Income	0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
6. Lebanon × Income	-0.00 (0.00)	0.00* (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
7. Libya × Income	0.00 (0.00)	0.00 (0.00)	0.00** (0.00)	-0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
8. Morocco × Income	0.00*** (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)
9. Palestine × Income	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
10. Sudan × Income	-0.00* (0.00)	-0.00*** (0.00)	0.00*** (0.00)	0.00* (0.00)	0.00 (0.00)	-0.00 (0.00)
Constant	0.32*** (0.04)	0.38*** (0.04)	0.31*** (0.04)	0.59*** (0.04)	0.71*** (0.04)	0.66*** (0.04)
Observations	7026	6780	6945	6813	6915	6782
R ²	0.135	0.133	0.183	0.144	0.047	0.056

Standard errors in parentheses

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

Table A6: Full Regression Results, Arab Barometer Wave Five

	(1)	(2)	(3)	(4)
	RelPrivateMatter01	ShouldntInfluence01	SameRights01	PreferSecularParty01
Friday=1	0.02** (0.01)	0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)
AlwaysMost	-0.03*** (0.01)	-0.03*** (0.01)	-0.03*** (0.01)	-0.06*** (0.01)
Friday=1 × AlwaysMost	-0.04*** (0.01)	-0.02 (0.01)	-0.02 (0.01)	-0.03* (0.02)
Prayer01	-0.12*** (0.01)	-0.07*** (0.01)	0.06*** (0.01)	-0.11*** (0.01)
Age	0.00** (0.00)	0.00 (0.00)		0.00*** (0.00)
Female	-0.03*** (0.01)	-0.02*** (0.00)	-0.00 (0.01)	-0.09*** (0.01)
Education	0.01*** (0.00)	0.01*** (0.00)	0.02*** (0.00)	0.02*** (0.00)
Employed	0.00 (0.00)	-0.00 (0.00)	0.01 (0.00)	0.00 (0.01)
5. Egypt	0.26*** (0.03)	0.22*** (0.03)	0.18*** (0.03)	0.36*** (0.03)
7. Iraq	0.30*** (0.03)	-0.05* (0.03)	0.15*** (0.03)	0.01 (0.03)
8. Jordan	0.03 (0.03)	0.12*** (0.03)	0.13*** (0.03)	-0.03 (0.04)
10. Lebanon	0.19*** (0.04)	0.12*** (0.03)	0.03 (0.03)	-0.06 (0.04)
11. Libya	0.06* (0.03)	0.10*** (0.03)	-0.02 (0.03)	0.01 (0.03)
13. Morocco	0.01 (0.03)	0.19*** (0.03)	0.19*** (0.03)	0.05 (0.03)
15. Palestine	0.04 (0.03)	0.08*** (0.03)	0.08*** (0.03)	-0.03 (0.03)
19. Sudan	0.02 (0.03)	-0.08*** (0.03)	-0.15*** (0.03)	-0.13*** (0.03)
21. Tunisia	0.23*** (0.03)	0.12*** (0.03)	0.10*** (0.03)	0.11*** (0.03)
22. Yemen	-0.08** (0.03)	-0.00 (0.03)	-0.15*** (0.03)	-0.06 (0.04)
IncomeDifficulties	0.01 (0.01)	0.02* (0.01)	0.00 (0.01)	0.01 (0.01)
5. Egypt × IncomeDifficulties	-0.04*** (0.01)	-0.03*** (0.01)	-0.04*** (0.01)	-0.06*** (0.01)
7. Iraq × IncomeDifficulties	-0.02* (0.01)	0.01 (0.01)	0.01 (0.01)	-0.01 (0.01)
8. Jordan × IncomeDifficulties	-0.01 (0.01)	-0.02* (0.01)	-0.00 (0.01)	-0.02* (0.01)
10. Lebanon × IncomeDifficulties	0.01 (0.01)	-0.00 (0.01)	0.03** (0.01)	0.07*** (0.01)
11. Libya × IncomeDifficulties	0.02* (0.01)	-0.02 (0.01)	0.00 (0.01)	-0.00 (0.01)
13. Morocco × IncomeDifficulties	0.00 (0.01)	-0.02** (0.01)	-0.04*** (0.01)	0.01 (0.01)
15. Palestine × IncomeDifficulties	-0.03** (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
19. Sudan × IncomeDifficulties	-0.01 (0.01)	0.02 (0.01)	0.03*** (0.01)	-0.00 (0.01)
21. Tunisia × IncomeDifficulties	-0.02** (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.03** (0.01)
22. Yemen × IncomeDifficulties	0.03*** (0.01)	0.00 (0.01)	-0.02* (0.01)	0.03** (0.01)
PrayDaily			-0.04*** (0.01)	
Constant	0.54*** (0.03)	0.55*** (0.03)	0.48*** (0.03)	0.49*** (0.03)
Observations	21462	21023	21220	18254
R ²	0.116	0.061	0.135	0.118

Standard errors in parentheses

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

Table A7: Summary Statistics, Lebanon Survey

Variable	Mean	Std. Dev.	Min.	Max.
Age	41.18	12.07	21	70
Female	0.45	0.5	0	1
Education (1-6)	3.2	1.09	1	6
Monthly Income (USD)	1066.37	520	99	4500
N		1000		

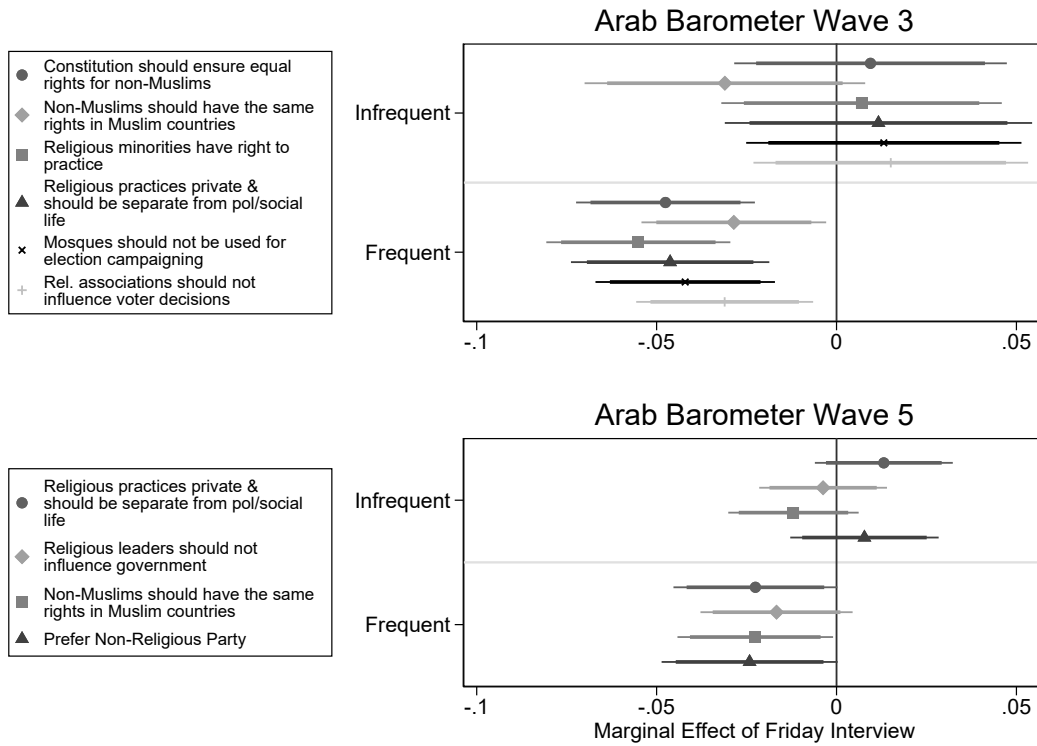
Table A8: Effect of Experience Treatment on Political Messaging

Subgroup	Treatment Effect
Non-Attendees, Not Friday	0.05 (0.04)
Non-Attendees, Friday	0.01 (0.14)
Weekly Attendees, Not Friday	0.06 (0.04)
Weekly Attendees, Friday	0.29** (0.13)

Standard errors in parentheses

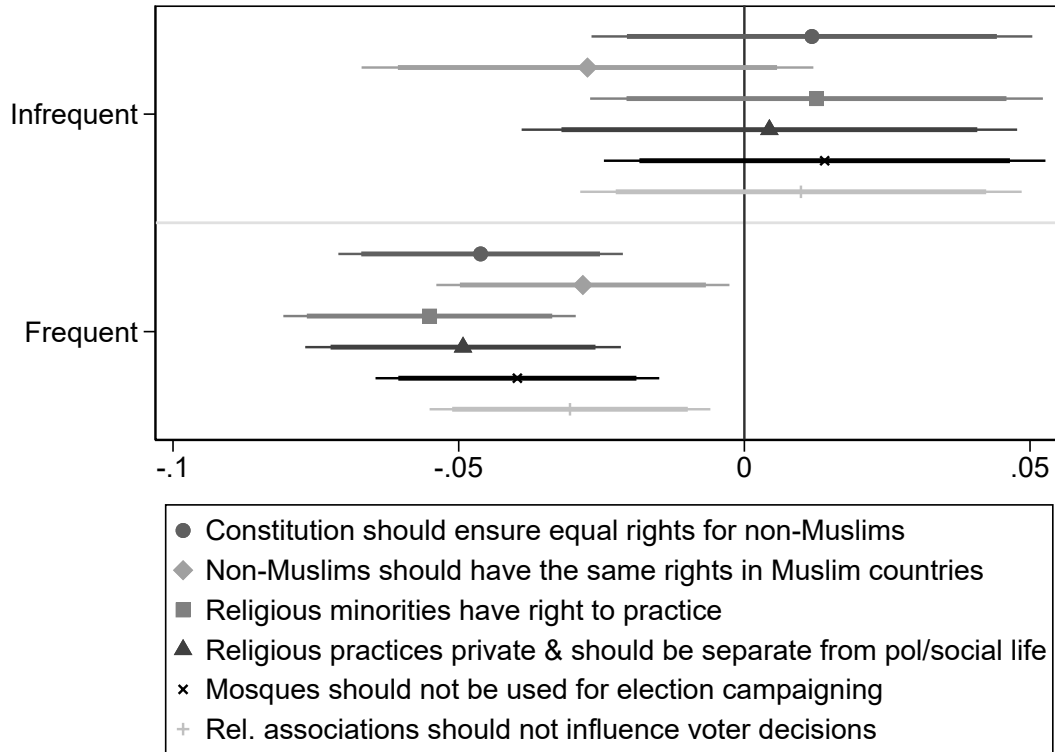
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Figure A1: Controlling for Party Support



These models include dummy variables indicating support for each of the parties available in the survey.

Figure A2: Controlling for Trust in Islamist Parties



These models control for a question asking respondents whether they trust Islamist parties.

Figure A3: Controlling for Life Satisfaction

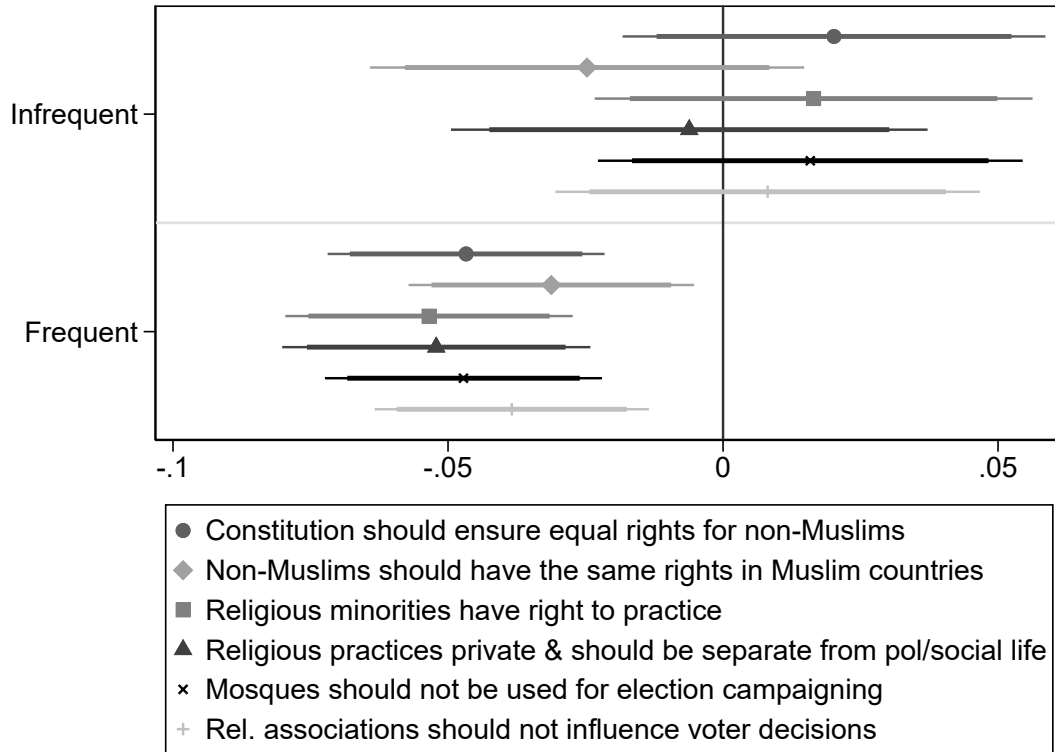


Figure A4: Controlling for Economic Satisfaction

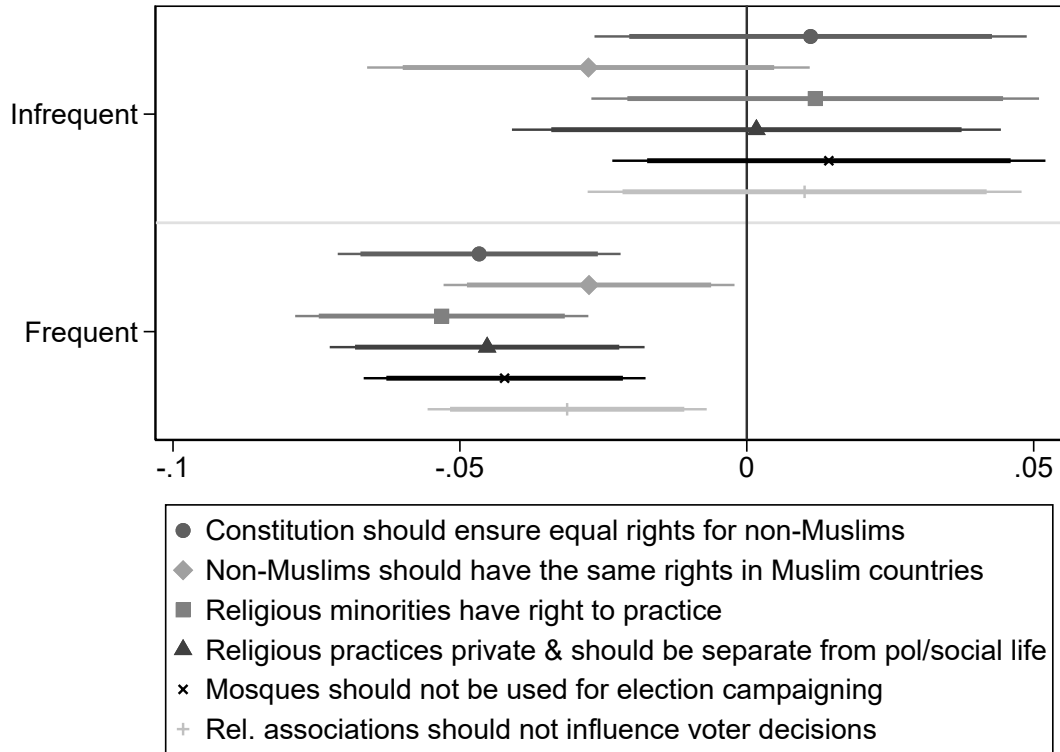


Figure A5: Disaggregating by Gender, Arab Barometer Wave Three



Figure A6: Disaggregating by Gender, Arab Barometer Wave Five

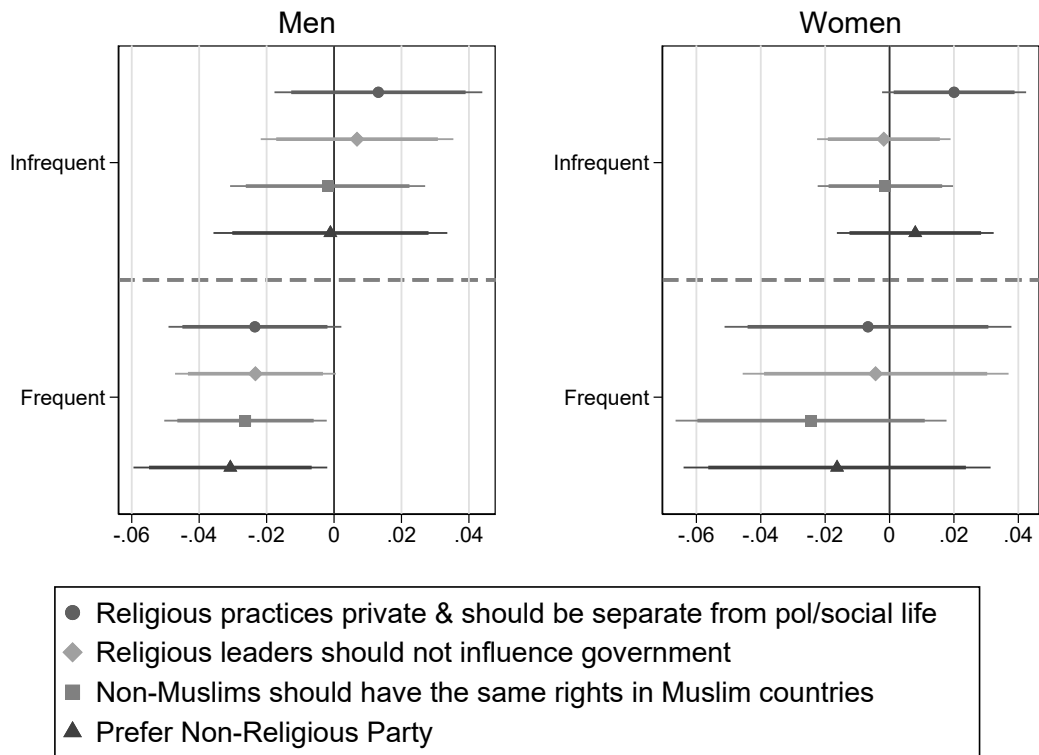
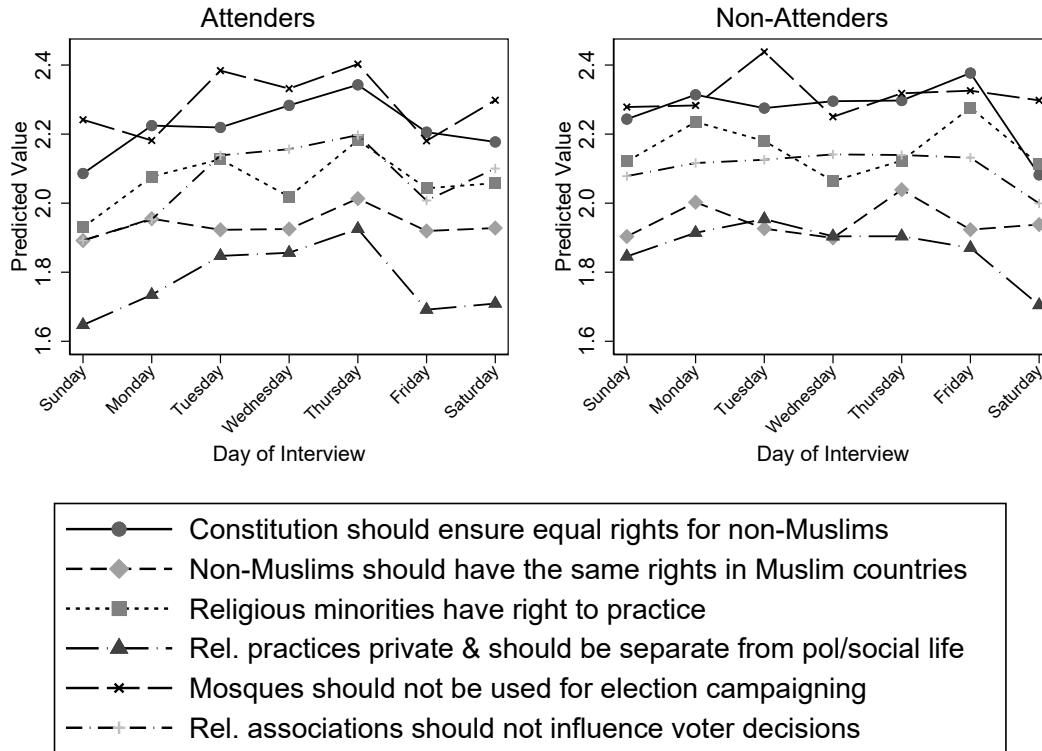
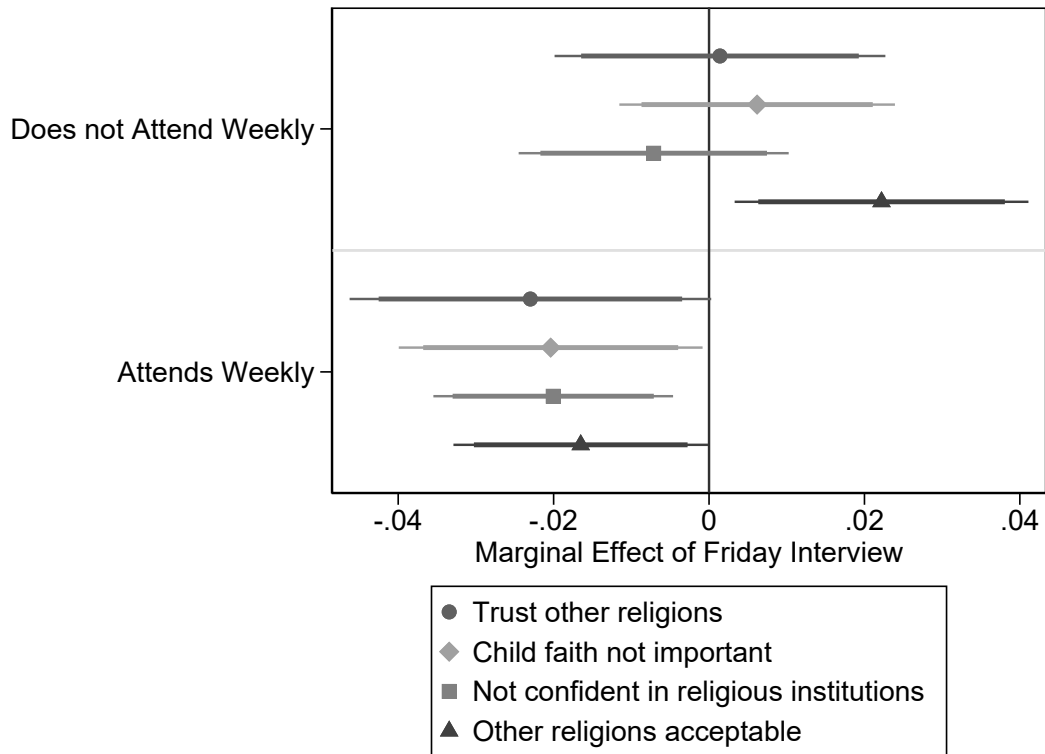


Figure A7: Estimates for Each Day of the Week



These models estimate predicted values for each day of the week individually rather than comparing Friday to all other days. While a sharp dropoff is evident on Fridays, we urge caution in interpreting these results, as analyzing the data in this way results in estimating effects based on relatively few observations.

Figure A8: Results from World Values Survey



As an out-of-sample test, we examined whether similar patterns hold among Muslims in the World Values Survey. We used the combined World Values Survey dataset to estimate the “Friday Effect” for Muslims across the world. As dependent variables, we use the four relevant questions with sufficient numbers of nonmissing responses:

Q62 Trust: People of another religion.

Q15 Important child qualities: religious faith.

Q64 Confidence: religious institutions.

Q170 Extent of agreement/disagreement: The only acceptable religion is my religion.

The results in Figures A8 and A9 are based on models specified as similarly as possible to the Arab Barometer models used in the main text.

Figure A9: Muslim-Majority vs. Non-Muslim Majority Countries (WVS)

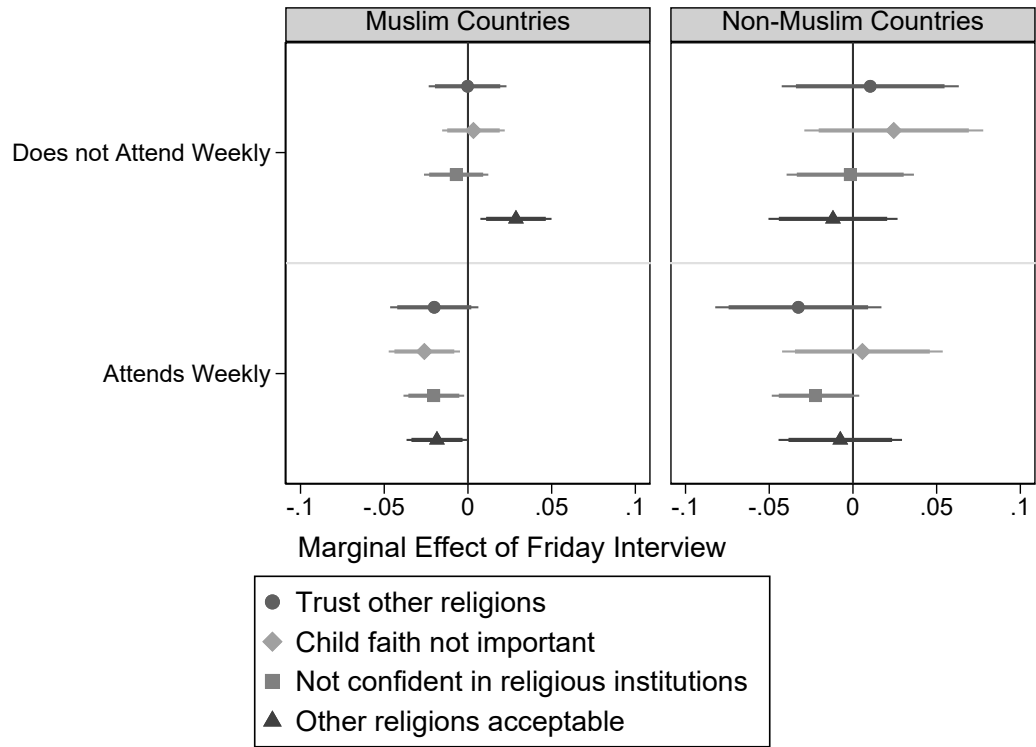


Figure A10: Controlling for Age and Gender, "Political Messaging" (Lebanon)

