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ARTICLE

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 (that is, proximate to the weekly communal prayer) were significantly more likely to express sectarian and antisecular 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

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. As 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 toward 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 (that is, those who are most likely to have been "treated"). This finding is replicated using additional survey data that expand both the temporal and the 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 article 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 sociocultural institutions. An original survey experiment from Lebanon further supports the argument that political messaging embedded within religious sermons primes exclusionary attitudes. Lastly, our conclusion underscores the study's empirical and theoretical takeaways, as well as implications for survey research in the Islamic world.

Literature and Theory

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 was in previous decades (see, for example, *The Economist* 2015). In the US 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 lesbian, gay, bisexual, trans, and queer (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) path-breaking work on Americans' readiness to limit communists' rights during the height of McCarthyism. Today, "radical" Muslims are frequently the main targets of intolerance (see, for example, 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 it 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. By and large, the available works 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 (see,

for example, Moaddel 2006) or a wider geographic scope (see, for example, 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 Spierings (2014), who models intolerance across five Arab countries using measures of prejudice. Notably for our purposes, Spierings (2014, 21) concludes that "any widespread Islamic influence [on intolerance] is found absent." In general, however, the insights linking religiosity and this particular subtype of exclusionary attitudes are drawn from the broader literature and select country-specific analyses.

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" has remained overwhelmingly stable (McClosky and Brill-Scheuer 1983; Nunn, Crockett, and Williams 1978; Sullivan, Piereson, and Marcus 1982).

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 (for example, structural equation modeling [see Eisenstein 2006] or propensity score matching [see Burge 2013]).

This pattern of inconclusive results also holds for the few studies of Muslim attitudes that contain dedicated political tolerance batteries. At one end of the spectrum, Djupe and Calfano (2012) find that among US 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 (that is, the typical measures of religious behavior) are predictive of intolerance among an online sample of US 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, for example, 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 to alter their congregants' willingness to express tolerance toward disliked groups.

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[1]For a recent example of research where *religious* tolerance is the dependent variable, see Hoffman (2020).

These latter insights help guide our expectations around the "Friday effect" among survey respondents in the Middle East.

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 (2013, 9) call to examine how "religious contexts shape … how people interact with and think about out-groups." We contend that the *salat al-jumʿa* ("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 of 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 multilayered 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 front of the mind at any given moment (Zaller 1992). This establishes two additional implications, which we evaluate later: first, that respondents' level of intolerance will exhibit a decay effect following exposure to the Friday Prayer; and, 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.

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 UK, and the United States, happiness, stress, and job satisfaction systematically correlate to days of the week, in particular, to whether individuals are interviewed as the weekend approaches or ends (Akay and Martinsson 2009; Helliwell and Wang 2015; Stone, Schneider, and Harter 2012; Taylor 2006; Tumen and Zeydanli 2014). Closer to our specific research question, the Islamic holy month of Ramadan induces changes in individuals, including heightening prosocial and cooperative beliefs and behaviors (Akay, Karabulut, and Martinsson 2013, Akay, Karabulut, and Martinsson 2015; Seyyed, Abraham, and Al-Hajji 2005). As the authors of another study note: "the collective enthusiasm derived from Ramadan leads to a heightened 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 Qur'an and later collections of the sayings and doings of the 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" (Gleave 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" (Antoun 1989, 141). Marrying these ethnographic insights with the logic of experimentation discussed earlier, however, offers a chance to systematically identify Antoun's suspected "efficient causal chains."

Our primary data come from the third wave of the Arab Barometer (2012–14).[2] The third wave consists of over 14,000 respondents in twelve countries: Algeria, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Palestine, Sudan, Tunisia, and Yemen.[3] 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 (during 2012–14). In particular, as citizens in some of these countries were fully immersed in 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 2012–14 moment, even as we note that fewer relevant dependent variables are available. This wave, the most recent (2018–19), 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 the "treatment" group (that is, 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, 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 noncompliance. In the presence of a "true" effect, this type of noncompliance will generally produce conservative effect estimates by biasing toward zero (Newell 1992).[4]

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

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[2]See: http://www.arabbarometer.org

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

[4]While convention is to interview following the prayer, the same reasoning applies here. Regrettably, neither the Arab Barometer nor the Lebanon survey described later 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-Friday Prayer interviews, it biases our results toward no effect.

less likely to attend the Friday Prayer (most likely noncompliers) and, thus, less susceptible to attitudinal shifts.

Measuring Exclusionary Attitudes

Our key objective in this article 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)[5]:

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 fewer 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.
- 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 fewer 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 nonreligious political party*; Statement 2: I prefer a nonreligious political party over a religious political party.

Each of these items in some way gauges respondents' preference for exclusion in a manner that is contextually relevant to the Middle East. The first three variables from Wave Three and the first variable from Wave Five reflect political intolerance, in that each invokes the limiting of a group's civil liberties solely on the basis of their group affiliation. In prior studies, these questions may simply be coded as "antisectarian," 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 (for example, anticommunism in the United States) or ethnicity (for example, 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

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[5]All dependent variables in our Arab Barometer analyses have been rescaled to range from 0 to 1 for ease of interpretation and comparison.

attitudes. To be sure, the structure of these particular questions is less than optimal, as we would ideally 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.[6] 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 antisecular opinions in this context are integrally linked to the higher-order exclusionary attitudes at the heart of our study, even if the particular subtypes of these attitudes are less discernible.

Each of these questions is scaled such that a higher score represents a tolerant or nonsectarian 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.[7] 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 article. 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 in each country.[8]

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 Online 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.[9] 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 sizable 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 seven-point education scale. On the other hand, among nonattenders, 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 nonattenders, being interviewed on Friday is likely to be

[6]Notably, the General Social Survey in the United States still gauges political tolerance through the so-called "fixed-group" method (that is, 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), so the approach is still considered sufficiently valid.

[7]The 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 (details available upon request).

[8]It should be noted 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.

[9]We 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.
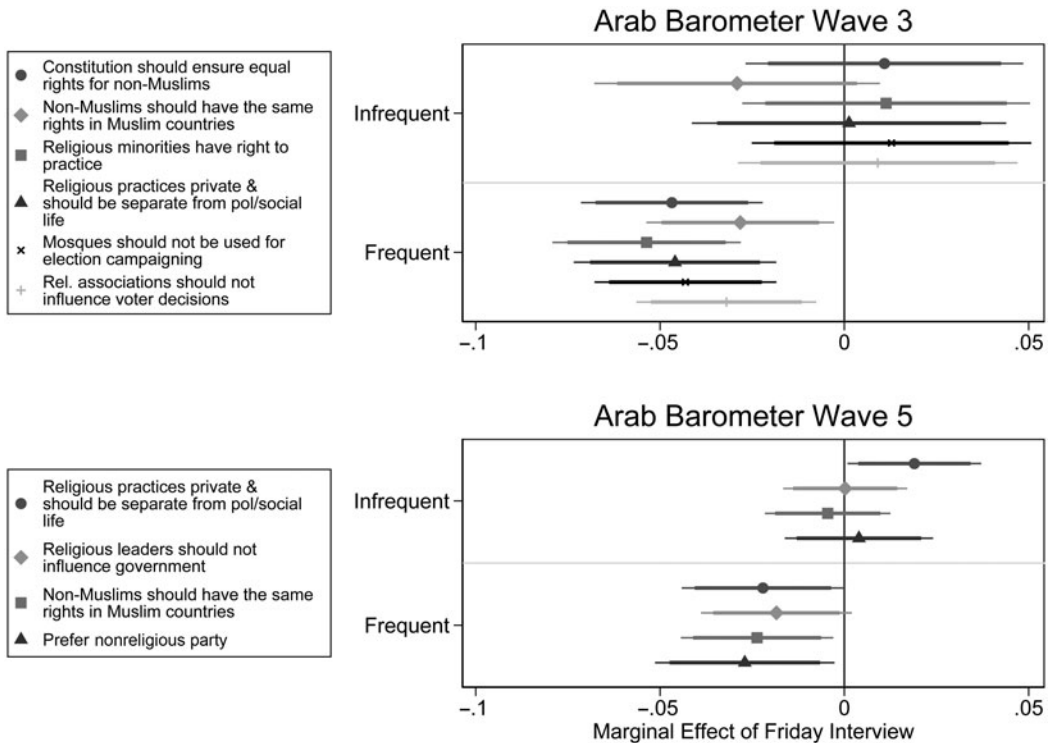
Arab Barometer Wave 3

Arab Barometer Wave 5

Figure 1. "Friday effect," by religious attendance.
Note: Bars indicate 90 per cent and 95 per cent confidence intervals.
Source: Arab Barometer.

generally indistinguishable from being interviewed on other days of the week (that is, these respondents most likely did not receive the theorized treatment of mosque attendance).

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.[10] 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 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.[11]

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[10]Internal 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, $\alpha = 0.66$, which are below the conventional standards for determining internal consistency.

[11]At 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, yet a general effect nonetheless abides in the more restrictive political environment of the fifth wave.

The precise estimates are available in the Online 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 per cent of men reported frequently attending mosque, compared to just 18 per cent 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 sparser and less consistently deployed, these figures indicate that the "Friday effect" is present in Muslim countries across the world, not only in Arab countries.[12] 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 preceding analysis is silent as to *why* this is occurring. In the following, 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.

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, that is, of being surrounded by members of a religious community, that solidifies group boundaries. The 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 are consistent with both mechanisms. In this section, we leverage cross-national variation in state capacity to regulate religion in an 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 (2001, 13–14) elaborates: "a well crafted [Friday] sermon is understood

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[12]Whereas the third wave of the World Values Survey, 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.

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." Wiktorowicz (2001, 56) also highlights the importance of the communal nature of the event, 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*."

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 a powerful tool of political mobilization (Brass 1997; Fearon and Laitin 2000; Wilkinson 2006). Through leveraging propaganda and making emotional and symbolic appeals, these entrepreneurs inflame or dampen preexisting cleavages and transform distributional conflicts into potentially more profitable identity-based ones (Bozic-Roberson 2004; Horowitz 2001; Kapferer 2011; Petersen 2002; Prunier 1995; Snyder 2000; Thompson 2007). 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 (1989, 141) 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."

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 earlier, 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, in particular, the degree to which states included in the Arab Barometer exercise control over religious practice. The third wave of the Arab 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 nondemocratic 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. As 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 review-ing 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 toward Islamist movements—would have both a higher motivation and a higher capacity to control the use of the Friday sermon for explicit political mobilization. Indeed, as Mecham (2014, 204–6) 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. In the 1990s and into the 2000s, this tightening continued through a variety of measures dealing with the construction of mosques, training and employment of imams, regulation of funding, and oversight of sermons.[13] As the US 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 cohe-sion, as determined by a judge."[14]

Of course, the effectiveness of these controls at preventing the politicization of religion should not be overstated.[15] However, our expectation is that, *in general*, during the time of the Arab Barometer's third wave, the Algerian state possessed 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, but the onset of a series of high-stakes "founding elections" also dramatically upped the spoils of political victory. All parties—though especially Islamists—seized the opportunity to organize campaigns around houses of worship (see Spencer 2012; Tadros 2012). In fact, during the 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 were completely unregulated during this period—not only was this activity illegal, but it was also 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 and the lack of state capacity (and perhaps will) to enforce laws on the books makes Friday Prayer-based politicization relatively more likely in this case.

Figure 2 presents our six variables for Egypt and Algeria, again dividing the sample between frequent and infrequent attenders. To explicitly state our expectations, Egypt and Algeria were

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[13]For 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/prod-uct/pdf/IF/IF11116

[14]See: https://www.state.gov/reports/2019-report-on-international-religious-freedom/algeria/

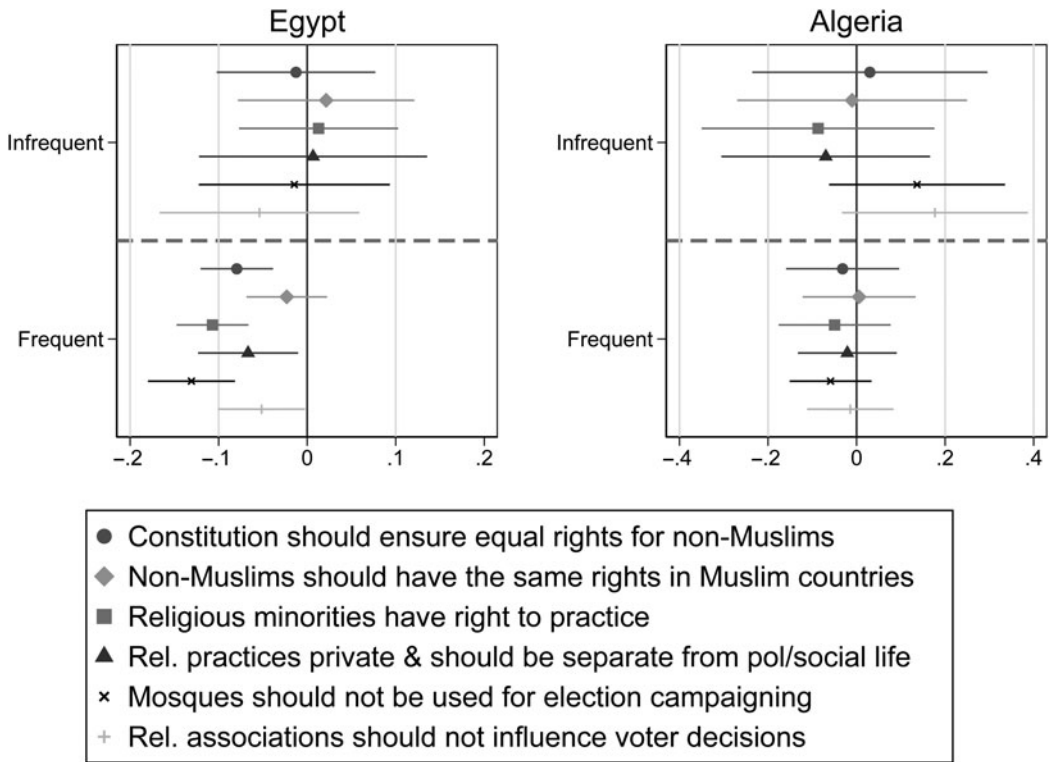[15]See: https://carnegie-mec.org/2018/03/13/state-owned-islam-in-algeria-faces-stiff-competition-pub-75770

Figure 2. "Friday effect" in Egypt versus Algeria.
Source: Arab Barometer Wave Three.

relatively similar across a variety of factors but 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.

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

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 of "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 2013 Egypt: not only is state control of religion fairly weak, but 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 come 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 multistage area probability sample covering all 26 of Lebanon's districts 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 per cent). For the original survey in Lebanon,[16] 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 (for the introductory script, see the Online Appendix). 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 have been 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 groups[17]:

- *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."

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

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[16]Notre Dame IRB Protocol Number 18-06-4715.

[17]For reasons described in the following (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.

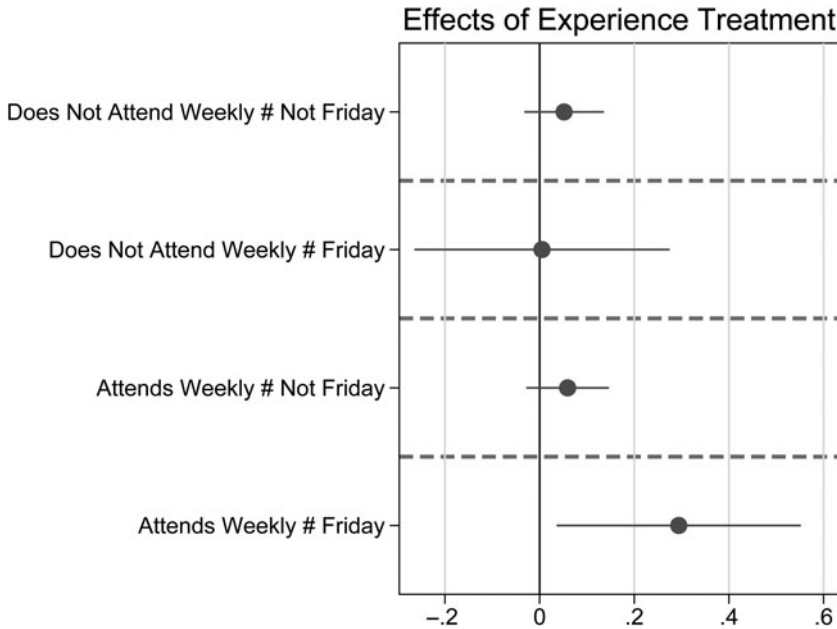[18]Some of these quotes have been lightly edited for grammatical purposes.

Figure 3. Treatment effects on "political messaging."

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?
- 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 rescaled to range from 0 to 1 for the purposes of interpretation. Again, it should be noted that respondents in this group are compared against the null control.

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 0.29 on a scale from 0 to 1) and statistically significant ($p < 0.05$). 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.

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 article, we have 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 days 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 (that is, social and political intolerance), we identify a consistent effect: individuals who identify as frequent attenders and 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 amid obvious confounders and selection effects, but it is silent regarding 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 religion was quite weak at the time of the survey, and 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, but a bland prime about a recent mosque experience also 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 US 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, 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 case described here 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 as 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 2014; Corstange 2016) and the gender and dress of enumerators (Benstead 2014a; Benstead 2014b; Blaydes and Gillum 2013) 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 have the potential to add not only 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 instead context dependent, we encourage other scholars to reexamine presumably inherent deficiencies or innate dispositions ascribed to the region and its people.

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