

Trust in Religious Leaders and Voluntary Compliance: Lessons from Social Distancing during COVID-19 in Central Asia

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What is the relationship between trust in religious leaders and compliance with policies costly to the individual? Religious leaders often have the moral authority to affect individuals' willingness to adopt pro-social behaviors. Yet, that influence can be either positive or negative because religious leaders face mixed incentives to encourage compliance and their leadership is often decentralized. We argue that greater trust in religious leaders will increase compliance in countries with a dominant religion and centralized religious authority because religious leaders will offer a coherent message that aligns with state directives. We test our hypotheses using data from surveys fielded in Kazakhstan and Kyrgyzstan during the COVID-19 pandemic. We find a positive and significant

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relationship between trust and voluntary compliance only in Kazakhstan, where religious leaders reduced the costs of compliance by enabling adherents to practice their faith while social distancing. We thus identify an alternative mechanism whereby trust promotes compliance.

**Keywords:** *COVID-19, religious leaders, trust, voluntary compliance, social distancing.*

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## INTRODUCTION

How does trust in religious leaders affect voluntary compliance with government policies that are costly to the individual? While the existing literature has contributed to our knowledge by highlighting the influence of trust in political leaders on compliance, we know little about the role of trust in religious leaders. Yet, across many societies, religious leaders have the moral authority to affect individuals' willingness to adopt pro-social behaviors. We contribute to the literature on trust and pro-social behavior by exploring the relationship between trust in religious leaders and compliance with costly mitigation behaviors during the COVID-19 pandemic. Specifically, we examine individuals' willingness to adopt social distancing guidelines.

There are many reasons to expect religious leaders to exert influence on individuals' willingness to adopt social distancing behaviors. First, they play a prominent role in many societies. As past research suggests, religious leaders can influence both individual attitudes about salient social and political issues and a range of important social and political behaviors. Theories on the role of trust, moreover, suggest that the ability of religious leaders to wield such influence is a function of whether their adherents trust them – that is, whether adherents hold a rational belief that religious leaders are acting in their interest (Hardin 1991). Second, given the communal nature of most religious services and holiday celebrations, trust in religious leaders is likely to play a pivotal role when it comes to whether individuals who normally participate in these services and celebrations choose to alter their behavior in compliance with social distancing policies (Singh 2020). Finally, religious leaders should play an even greater role in times of crisis when people are more likely to turn to religion because they face elevated levels of threat and uncertainty (Pargament 1997:131-162).

Less clear is whether trust in religious leaders will have a positive or negative influence on voluntary compliance with social distancing guidelines. There are two main reasons for such ambiguity. First, religious leaders have conflicting incentives when it comes to advising their congregations whether to adopt social distancing guidelines. They might be reluctant, for example, to discourage their congregants from participating in religious services and events, especially on religious holidays, either because this would limit their direct access to congregants or deprive congregants of the benefits from communal prayer. We cannot predict, therefore, whether their advice will align with state directives concerning health mitigation behaviors. Second, because they are often decentralized, we have little reason to expect that religious leaders will provide a unified message that either conforms with or contradicts state directives.

Our aim is to move beyond these issues so that we can develop theory regarding the relationship between trust in religious leaders and voluntary compliance. We begin by specifying boundary conditions because they are essential components not merely for building theory but for building strong theory (Dubin 1978, Sutton and Staw 1995:396). We argue that the existence of two conditions enable us to theorize about the direction of religious leaders' influence in a given context or country: 1) a dominant religion; and 2) centralized religious authority. Together, these conditions increase the likelihood that religious leaders will articulate a coherent message that conforms with state directives because they facilitate coordination among religious leaders and cooperation between religious leaders and the state. We can then hypothesize that higher levels of trust in religious leaders will be positively associated with greater compliance with social distancing guidelines where there is a dominant religion with centralized authority (H1). However, for reasons described below, we expect this association to be limited to religious leaders' domain of expertise – i.e., religious holidays and rituals (H2).

We test these hypotheses using original survey data fielded during the COVID-19 pandemic in two countries that meet these boundary conditions – Kazakhstan and Kyrgyzstan. Specifically, taking into account several other drivers of compliance identified in the literature, we examine whether trust in religious leaders affected individual compliance with two types of social distancing: 1) the degree to which they changed their celebration of specific religious holidays and life-cycle events and 2) whether they adopted more quotidian behaviors such as avoiding social gatherings and enclosed spaces.

We find that higher trust in religious leaders is positively associated with the adoption of social distancing behaviors for religious holidays and rituals, but only in Kazakhstan. This is puzzling because, in addition to the two boundary conditions, they share several other traits that would lead us to expect similar outcomes. To investigate this empirical puzzle, we systematically compared religious leaders' official statements concerning social distancing policies from the onset of the COVID-19 pandemic through the end date of our survey in both countries. Our analysis reveals that only in Kazakhstan did religious leaders consistently offer adherents clear substitutes for celebrations (i.e., practical solutions) and absolution for adopting these alternatives (i.e., spiritual solutions) so that individuals were able to follow social distancing guidelines while also meeting the requirements of their faith. We argue that offering these solutions facilitated compliance by reducing the individual costs of adopting pro-social behavior. At the same time, we do not find evidence to support plausible alternative explanations, including differences in state capacity and press freedom.

Our findings build on and expand the rich literature on trust and pro-social behavior, particularly the insight, based on Russel Hardin's (1991) conceptualization of trust as "encapsulated

interest,” that the affect of trust is insufficient to resolve the collective action problem (Hardin 2002, Cook, Hardin, and Levi 2005). For trust to generate widespread societal cooperation, individuals must believe that an institution or agent is not only motivated to act in their interest but also committed to doing so. In other words, the institution or agent must demonstrate its trustworthiness. Although religious leaders in both Kazakhstan and Kyrgyzstan had a high level of popular trust, only in Kazakhstan did religious leaders adequately demonstrate their trustworthiness. These findings also have broader implications for our understanding of the relationship between trust and the costs of compliance. Much of the literature has focused on norms as the mechanism driving the relationship between trust and compliance because it increases the willingness of individuals to endure the costs associated with pro-social or cooperative behavior (Ostrom 2000). Here, we identify an alternative mechanism whereby trust promotes compliance: the actual reduction of these costs. This suggests that, absent the mediating effect of norms, policies designed to reduce individual costs can have a positive influence on pro-social or cooperative behavior beyond small groups (Olson 1965).

#### TRUST IN RELIGIOUS LEADERS

Religious leaders have been found to influence individual attitudes about salient social and political issues (Wald 1987), such as immigration (Nteta and Wallsten 2012), as well as a range of important social and political behaviors. These include the use of contraceptives (Adedini et al. 2018), voting (Campbell and Monson 2003), participation in protests (Butt 2016) and violent conflict (Basedau, Pfeiffer, and Vüllers 2016). Moreover, while much attention has been paid to the role of religious institutions, which can have an indirect effect on the attitudes and behaviors of congregants, religious leaders across faiths can have a direct effect (Jamal 2005).

Religious leaders exert direct influence in a variety of ways. Their sermons, for example, can affect both forms and levels of political participation among adherents (Secret, Johnson and Forrest 1990). Religious leaders can also utilize institutions under their purview to actively recruit followers into politics by hosting meetings to discuss ballot initiatives or encourage voting (Djupe and Grant 2001). These institutions can also be informal. In Senegal, for example, religious leaders from different Muslim brotherhoods have used their unofficial status to play a salient role in driving voter mobilization and brokering votes among competing parties (Koter 2021).

The key mechanism underlying all these relationships is the ability of religious leaders to convey a credible message to their adherents, which depends on trust. As theories of trust suggest (Levi 1998), the content of their message would be inconsequential unless the recipients of that message believe that the source (i.e., the messenger) is acting in their interest. In other words, without trust, religious leaders would not be able to command sufficient influence among adherents to alter their behavior except under duress or physical threat. These theories also emphasize that trust in political leaders plays a particularly important role in shaping behavior when individuals are required to make personal sacrifices for the greater good (Hetherington 2018:4). Considering the moral authority that religious leaders possess, it seems logical that they would have an equal if not greater impact on influencing such behaviors.

Despite the central role of trust, research on voluntary compliance has paid little attention to the influence of religious leaders, who enjoy substantial trust across many societies. Moreover, the existing literature does not provide clear expectations regarding how trust in religious leaders affects individuals' willingness to adopt mitigation behaviors, including social distancing. Some studies have found that where trust in government is low, mitigation behaviors can be nudged in a



positive direction when more trusted individuals, such as religious leaders, are enlisted to advocate for these behaviors (Greyling et al. 2016).<sup>1</sup> However, absent this kind of specific engagement with religious leaders, most have noted a negative relationship between religiosity in general and the willingness to adopt mitigation behaviors (DeFranza et al. 2020). Furthermore, the scope of the existing literature is limited due to its focus on either Christian-majority countries (ibid) or settings in which there are well established faith-based networks and healthcare providers at the community level (Greyling et al. 2016). Studies with a broader cross-national scope have found that a high degree of trust in religious leaders is negatively associated with the adoption of recommended mitigation behaviors (Rozek et al. 2021), suggesting that religious leaders do not generally endorse these behaviors.

That trust in religious leaders should influence voluntary compliance thus seems clear. Much less clear is whether this influence will have a positive or negative effect on compliance. We argue that there are two main reasons for this ambiguity. First, religious leaders have conflicting incentives when it comes to advising their congregations whether to adopt social distancing guidelines even in the context of a pandemic. On the one hand, because individuals often turn to religion during times of crisis, the pandemic provides an opportunity both to reassure their existing congregants and to expand their congregation to include those newly seeking comfort in religion. Advising congregants not to attend services would run counter to these incentives. On the other hand, religious leaders may also want to minimize the spread of the virus among existing members of their congregation, and thus have strong incentives to emphasize the community's public health obligations to one

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<sup>1</sup> There is also some evidence to suggest that having close relationships with religious leaders increases trust among congregants (Seymour et al. 2014), which may promote pro-social behaviour.



another. Second, in part because of their conflicting incentives, we have little reason to expect either that religious leaders are providing a unified message regarding mitigation behaviors or that they are providing one that is consistent with state directives. This is particularly the case in multi-denominational societies with decentralized religious structures, where the sheer number and diversity of religious leaders makes coordinating their message difficult if not impossible.

Both these conditions can be addressed by specifying the boundary conditions under which we expect the relationship between trust in religious leaders and voluntary compliance to be positive or negative. This enables us to develop a contextual theory about the direction of this relationship from which we can derive hypotheses to test in the appropriate country settings. It also provides the opportunity for identifying the mechanisms that underlie this relationship. We argue that for trust in religious leaders to be positively associated with voluntary compliance there are two boundary conditions: 1) a dominant religion; and 2) centralized religious authority. These two conditions increase the likelihood that religious leaders will articulate a coherent message that conforms with state directives because they facilitate coordination among religious leaders and cooperation between religious leaders and the state. In other words, where religious authority is vested in a single leader or institution that is widely recognized across the population, religious leaders are more likely to articulate a coherent message that is repeated across pulpits and to be incentivized to align this message with government policies.

#### **DRIVERS OF COMPLIANCE**

Research to date points to three main factors that affect an individual's willingness and ability to adopt various mitigation behaviors. First, inequalities arising from differences in socio-economic status (SES) reduce compliance because they make adopting recommended behaviors

more difficult for those individuals who do not have sufficient resources to do so (Papageorge et al. 2021). For example, low wage workers are more likely to lack benefits that would enable them to take sick leave or to work from home (Kristal et al. 2018) and to be dependent on public transportation to travel to work. People of low SES are also more likely to live in places where they lack access to open space where they can practice social distancing (Patel et al. 2020). Indeed, research during the COVID-19 pandemic has found that compliance is much higher in high income neighborhoods compared to low-income neighborhoods (Jay et al. 2020).

Second, risk perception – that is, the fear of being exposed personally to the virus or of one’s family contracting the virus (Leppin and Aro 2009, Poletti et al. 2011) – can affect compliance. The more an individual perceives that they or their family are at risk of becoming infected with the disease, the more likely they are to comply with government policies and recommendations (Slovic 1987). Research on COVID-19 has consistently found that those who feel at risk personally are more likely to follow recommended health behaviors, such as hand washing and social distancing (Harper et al. 2021, Wise et al. 2020).

Finally, studies investigating the influence of public trust on adherence to public health guidelines have focused primarily on political trust (i.e., trust in government or political leaders) and medical trust (i.e., trust in medical practitioners or domestic healthcare systems). Regarding both types of trust, the general consensus is that higher levels are positively associated with individual compliance (Taylor-Clark et al. 2005). In the context of the Ebola epidemic, for example, trust-building efforts in health officials successfully promoted the adoption of mitigation behaviors (Christensen et al. 2020) while high levels of political trust fostered decisions to comply with government health directives, including social distancing (Blair et al. 2017).

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**EMPIRICAL STRATEGY**

Given the presence of two boundary conditions – 1) the existence of a dominant religion; and 2) the centralization of religious authority – we hypothesize that trust in religious leaders will be positively associated with voluntary compliance (H1). However, we expect this association will be limited to religious leaders' domain of expertise – i.e., religious holidays and rituals (H2). While H1 is clearly derived from our contextualized theory, H2 is a genuflection to the existing literature that emphasizes trust in political leaders and medical practitioners as primary drivers of compliance with quotidian health mitigation behaviors. Our intuition is that in the case of such behaviors, the influence of religious leaders will be secondary and supplemental to that of medical practitioners and politicians. We test our hypotheses using novel data from surveys fielded in Kazakhstan and Kyrgyzstan at the peak of their COVID-19 pandemic. Below we explain our rationale for case selection, describe the survey design, and report our results.

**Case Selection**

Kazakhstan and Kyrgyzstan are two of the five Central Asian republics that became independent states after the break-up of the Soviet Union in 1991. Like their counterparts, they are predominately Muslim with a significant religious minority.<sup>2</sup> The World Religion Database estimates that Muslims compose 71 percent of the population in Kazakhstan and 87 percent of the population

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<sup>2</sup> Here we only explore the relationship between trust and compliance for the religious majority. However, we would expect a similar relationship where the religious minority is managed via a similarly centralized religious structure and religious leaders are aligned with the state.

in Kyrgyzstan (Johnson and Grim 2020).<sup>3</sup> These two countries offer an ideal setting for testing our hypotheses. In addition to the two boundary conditions we identify, they share several key similarities that would lead us to expect similar outcomes in terms of the relationship between trust in religious leaders and voluntary compliance with social distancing during the COVID-19 pandemic.

### ***Centralized Religious Structures***

In present-day Kazakhstan and Kyrgyzstan, religion is tightly managed by the state via a centralized and dualistic structure similar to the one they inherited from the Soviet Union. It would be erroneous, however, to argue that they simply continued the policies of their predecessors in the religious field. As in the other Central Asian republics, with the relaxation of restrictions under Mikhail Gorbachev in the late 1980s, Kazakhstan and Kyrgyzstan experienced an Islamic revival akin to what many countries in the Middle East experienced in the 1970s. Unlike their counterparts, following independence the political leaders of Kazakhstan and Kyrgyzstan initially adopted a more laissez-faire approach to the regulation of religion (McGlinchey 2005; see also Trofimov 2001). Thus, although they created a national muftiyat in the early 1990s to serve as the official representative of the country's Muslims in place of the Soviet Muftiyat, it was nominally independent from the state and not yet charged with enforcing a singular version of Islam. By the end of the 2010s, however, both countries had adopted policies that closely resembled those they had experienced as part of the Soviet Union.

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<sup>3</sup> In both countries, Eastern Orthodox make up less than twenty percent of the population, though this percentage is slightly higher in Kazakhstan (Johnson and Grim 2020).

Beginning in the 1940s, the Soviet system of managing religion was based on a statist approach. Thus, alongside the Muftiyat – widely known by its Russian acronym SADUM (Sredneaziatskoe Dukhovnoe Upravlenie Musul'man) – it created a parallel political institution inside the government to closely monitor religious activities and institutions – the Council for the Affairs of Religious Cults (CARC). For Central Asia specifically, this meant that SADUM was required not merely to coordinate with and gain approval from CARC but also to become its “reliable partner” in circumscribing the religious beliefs and practices of Muslims (Tasar 2017:27; see also Arapov 2011:152-153).<sup>4</sup> Their collective goal was to inculcate “Soviet Islam” – that is, a set of beliefs and practices compatible with Communist rule (Babadjanov 2018). When Moscow loosened its grip on religion in the periphery under Gorbachev, it was not only SADUM that quickly disintegrated as an institution but also the relationship between CARC and SADUM (Tasar 2017:365-366).<sup>5</sup> This relationship, moreover, was not automatically restored with the creation of national muftiyats to replace SADUM but had to be rebuilt from scratch.

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<sup>4</sup> One of their primary joint functions, for example, was to ensure that all mosques and religious leaders (e.g., imams, mullahs) were officially registered (Tasar 2017).

<sup>5</sup> That CARC had lost its ability to control the actions of SADUM was apparent under the last mufti, Muhammad-Sodiq Muhammad-Yusuf (Babadjanov 2018).

In both Kazakhstan and Kyrgyzstan, the state initially vested authority in the new national muftiyat<sup>6</sup> to serve as the official representative of Muslims in their respective countries. Similar to the Soviet system, from the outset these institutions were organized hierarchically with one central leader (Grand Mufti)<sup>7</sup> at the national level who appointed several subnational leaders (kazyats) at the regional (oblast) level to oversee various Islamic institutions (madrasahs, mosques, etc.) and religious leaders (kazy, imams, etc.) within their jurisdictions. The muftiyats were also assigned several key functions including supervising religious education, disseminating religious knowledge, administering the annual pilgrimage to Mecca (hajj), and appointing imams to mosques (Wolters 2014:11). In the context of the Islamic revival, moreover, the muftiyats were at least de facto given the task of adjudicating among the multiple views of Islam and competing discourses that were emerging (Tucker 2013).

By the late 2000s, however, both countries had established a parallel political institution to operate alongside the muftiyat somewhat analogous to CARC. The process of building and fortifying a dualistic structure to manage religion began much earlier in Kyrgyzstan. Already in the mid 1990s, the government recognized the need for a regulatory body within the state apparatus and created the State Commission for Religious Affairs (SCRA) by presidential decree on March 4, 1996.<sup>8</sup> Over the

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<sup>6</sup> More formally, they are referred to as: The Spiritual Administration of Muslims of Kazakhstan and The Spiritual Administration of Muslims of Kyrgyzstan.

<sup>7</sup> The headquarters is also centralized; located in Almaty in Kazakhstan and in Bishkek in Kyrgyzstan.

<sup>8</sup> Decree No. 45, 4 March 1996. *О структуре и составе Правительства Кыргызской Республики*. (On the Structure and Composition of the Government of the Kyrgyz Republic.)

next several years, a series of presidential decrees and parliamentary resolutions affirmed and expanded the SCRA's regulatory role to include, for example, registering imams, prohibiting private religious education, and regulating the hajj (Gamza and Jones 2020:9). Yet, as the government itself acknowledged, the SCRA had limited capacity to fulfill its role in the early 2000s.<sup>9</sup> Kazakhstan began to build and fortify its religious bureaucracy roughly a decade later. On December 30, 2005, the government issued a resolution (Resolution No. 1319) creating the Committee on Religious Affairs (CRA), but without clarifying whether its role was to protect citizens' religious freedom or monitor their religious activities on behalf of the state (Podoprigora 2010:462). One indication of this lack of clarity is that the CRA was first assigned to the Ministry of Justice and then later transferred to the Ministry of Culture (Moldakhmet 2012:958).

The sequencing of the religious bureaucracy's institutionalization had two main consequences for religious regulation in Kazakhstan and Kyrgyzstan. First, the muftiyat had the opportunity to develop somewhat independently from the state and, partly for this reason, to gain

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<sup>9</sup> For details, see the April 5, 2001 Resolution No. 155, 5 April 2001. *О работе Государственной комиссии при Правительстве Кыргызской Республики по делам религий по исполнению Указа Президента Кыргызской Республики "О мерах по реализации прав граждан Кыргызской Республики о свободе совести и вероисповедания"*. [On the work of the State Commission under the Government of the Kyrgyz Republic on Religious Affairs on the Implementation of the Decree of the President of the Kyrgyz Republic "On Measures to Implement the Rights of Citizens of the Kyrgyz Republic on Freedom of Conscience and Religion"].



some popular legitimacy. Its de facto role as the primary interpreter of the dominant faith in the context of an Islamic revival also helped to elevate the muftiyat's status (Malik 2019:360, Borbieva 2017:161). Second, tensions developed between the muftiyat and the state administrative agencies – often triggered by a dispute over jurisdiction. In Kyrgyzstan, for example, they escalated into an “open confrontation” between the respective leaders of the muftiyat and the SCRA in 2011 over which institution was better suited to organize the annual hajj (Štimac and Aslanova 2021:130). While the credibility of both institutions suffered, the struggle for control manifested itself in the high turnover rate of Grand Mufti. Between 2010 and 2014, six different religious leaders were elected to the position by the Council of Ulema and then replaced (Engvall 2020:35).

As their governments faced increasing incentives to approach regulating Islam as a matter of state security in the 2010s, both Kazakhstan and Kyrgyzstan developed similar two-fold strategies to confront these issues. The first was to officially endorse not only a singular interpretation of Islam in their respective countries but also the muftiyat as the sole interpreter of Islam (Nogoibaeva, Almira, and Tolipov 2017:28). On the one hand, their efforts were directed at creating a homogenous Islam that was deemed consistent with each country's national heritage – that is, a “national Islam” similar to the official Islam that they experienced under Soviet rule (Kassenova 2018:120). On the other hand, their aim was to employ their respective muftiyats “to define and promote a standardized, theologically defensible, non-political Islamic discourse” (Borbieva 2017:162). The second was to foster greater collaboration between the muftiyat and the parallel state agency in monitoring religious activities and institutions by providing them with more clarity as well as capacity. Kazakhstan, for example, established the Agency for Religious Affairs (ARA) in 2011 to replace the CRA as a separate state body with broader powers and the explicit task of combatting extremist ideologies (Moldakhmet 2012:958) and then elevated its status to a ministry in 2016. These changes

enabled the religious bureaucracy in both countries to coordinate active campaigns to bring mosques and imams fully under the muftiyat's control (Nogoibaeva, Almira and Tolipov 2017:25,44; see also Esengeldiev 2016:83). In Kyrgyzstan specifically, it meant much greater continuity in the muftiyat's leadership; only one person (Maksatbek Toktomushev) occupied the position of Grand Mufti from 2014-2021 (Engvall 2020:35).

By the start of the COVID pandemic, therefore, Kazakhstan and Kyrgyzstan both had a centralized and hierarchical religious structure in which the Muftiyat was anointed as the sole representative and the Grand Mufti served as the chief spokesperson for Muslims in their respective countries. This made it possible for religious leaders in both countries to articulate and disseminate a unified message to their adherents regarding health mitigation behaviors.

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**COVID-19 Policies**

The governments of both Kazakhstan and Kyrgyzstan responded swiftly and decisively to the COVID-19 pandemic – particularly in comparison to their counterparts in Tajikistan and Turkmenistan. More specifically, both adopted strict social distancing policies to mitigate the negative impact of the COVID-19 pandemic (for details, see Jones and King 2021). By mid-March, they had closed their land borders, cancelled flights, and imposed strict social distancing measures, including canceling all public events and gatherings to celebrate the national Nowruz holiday on March 21. Quarantines were enacted in major cities and non-essential businesses were forced to close as the number of confirmed cases began to rise in late March and April. These policies pertained to the observance of another important holiday for Muslims: the beginning of the holy month of Ramadan (April 23-May 23). In both countries, places of worship remained closed for public prayer and in the case of Ramadan, gatherings for *iftar* – the nightly meal served to break the fast – were banned. From early May and through mid-June, however, the leaders of both countries gradually relaxed these measures, including allowing churches and mosques to re-open but not at full capacity. Quarantines nonetheless remained in effect, as did requirements for citizens to observe social distancing regulations. Public holiday celebrations also continued to be cancelled, which included the widely observed Kurban Ait (or Eid al-Adha) to mark the end of Ramadan. Following a resurgence in confirmed cases in mid-to-late June, both governments tightened restrictions again; lockdowns in major cities were renewed through the end of July.

**Regime Type**

Political regimes in Kyrgyzstan and Kazakhstan were also remarkably similar at the time of the COVID-19 pandemic. Once distinct – from other countries in the region and then

from one another – they have converged over time. In the early 1990s, both countries were widely viewed as having made the greatest progress toward democratization in the region. This perception changed more quickly for Kazakhstan, which some characterize as taking an anti-democratic (more correctly, anti-pluralist) turn already in the first few years of independence (Cummings 2002: 9) while others claim its retreat from democracy began with the president’s dissolution of parliament in 1995 (Olcott 2002: 87). Kyrgyzstan held on to its accolade as being the only democratic regime in Central Asia (Anderson 1999) for almost two decades. This is reflected in Freedom House’s annual *Nations in Transit* report, which has consistently classified Kazakhstan as having a “consolidated authoritarian regime” since 2005, whereas Kyrgyzstan was assigned this classification from 2009-2012 and then again from 2017-2021.<sup>10</sup>

### ***Trust in Political Leaders & Religiosity***

Finally, prior to the pandemic, these countries displayed similar levels of public trust in political and religious leaders as well as similar degrees of religiosity. According to the most recent World Values Survey (WVS) conducted between 2017 and 2020, the level of trust in political leaders in both countries is high. When asked how much confidence they had in their national government, for example, over 50 percent of respondents in each country answered either “a great deal” or “quite a lot”. This survey also found the degree of religiosity to be high in both countries. When asked “How important is religion in your life?” 64 percent of respondents in Kazakhstan and 85 percent in Kyrgyzstan answered “rather

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<sup>10</sup> <https://freedomhouse.org/countries/nations-transit/scores>

important” or “very important” (Inglehart et al 2020). Beyond survey evidence, numerous studies have documented the growing interest in Islam in both countries since the 1990s and the increasing observance of religious practices such as daily prayer (namaz) and fasting during Ramadan (Malik 2019: 357-358; see also Borbieva 2017).

### ***State Capacity***

Admittedly, these countries differ in one key respect: state capacity. Kazakhstan is characterized as having a high degree of state capacity given its centralized structure of decision-making and access to oil revenue, whereas Kyrgyzstan is characterized as having a low degree of state capacity because it is both administratively decentralized and lacks fiscal resources. It might be tempting, therefore, to conclude that we should expect different outcomes in terms of compliance (i.e., higher levels of compliance in Kazakhstan than in Kyrgyzstan) based on the state’s ability to enforce these directives. Yet, there are many reasons to be skeptical that higher levels of state capacity are linked to greater degrees of individual compliance with government health directives – particularly those related to social distancing. First, because such directives are both generally unpopular and likely to have negative economic consequences at both the individual and country level, the state faces serious disincentives when it comes to enforcement (Worsnop 2019). Second, as a result, the state is often ambivalent about enforcement regardless of its capacity level. Third, strict enforcement deprives the government of the ability to shift blame to the population if health directives prove unsuccessful at mitigating the spread of the virus. Finally, the experience of the current pandemic demonstrates that higher levels of state capacity are not correlated with higher degrees of compliance (Kavanagh and Singh 2020).

## Survey Design

We surveyed 1,000 respondents in each country in July 2020 with response rates over 50 percent.<sup>11</sup> These surveys were conducted in compliance with the University of Michigan's Health Sciences and Behavioral Sciences Institutional Review Board (IRB-HBHS)<sup>12</sup> and in collaboration with local survey firms.<sup>13</sup> In Kazakhstan, we used the Computer-Assisted Telephone Interviewing (CATI) system which relies on random digit dialing and in Kyrgyzstan a random sample of the adult population (drawn from a public phone directory) was sent a link to the online survey. In both countries, network coverage is 100 percent and the number of connections is well over 100 percent, suggesting that phones are widely used.<sup>14</sup> To capture regional diversity, respondents in each country were selected from two major cities (Almaty and Nur-Sultan in Kazakhstan; Bishkek and Osh in Kyrgyzstan) and across multiple administrative subdivisions. The administrative subdivisions within

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<sup>11</sup> Response rates were calculated using a simple formula: # of respondents who completed surveys / # of respondents contacted who were eligible to take the survey.

<sup>12</sup> The study was categorized as exempt (HUM00168677). All participants in the study were required to give informed consent, in accordance with IRB-HBHS policies, before they could access the survey and all who completed the survey received compensation.

<sup>13</sup> In Kazakhstan, we worked with BISSAM Central Asia LTD. In Kyrgyzstan, we worked with PIL Research & Consulting Company.

<sup>14</sup> For details, see:

<https://dlca.logcluster.org/display/public/DLCA/3.4+Kazakhstan+Telecommunications> and

<https://dlca.logcluster.org/display/public/DLCA/3.4+Kyrgyzstan+Telecommunications>.

each region were chosen because they had the highest rate of COVID infections, meaning both that social distancing policies were more relevant, and that compliance was more likely to have an impact. In Kazakhstan, these included Shymkent (south), Karaganda (central), Ust-Kamenogorsk (east), Atyrau (west) and Pavlodar (north) and in Kyrgyzstan, Chui (north) and Osh (south). Surveys were translated into four local languages (Kazakh, Kyrgyz, Russian, and Uzbek).<sup>15</sup>

In both countries, respondents were asked to report their level of compliance based on two measures of social distancing. The first concerns the observance of national holidays that occurred during a period of government restrictions on public gatherings from March to June 2020. Specifically, respondents were asked to what extent (not at all, somewhat, a lot) they modified their celebration of the following: 1) Nowruz (*Nooruz*), which has its origins in Zoroastrianism and is celebrated across religious faiths, occurred just after the initial lockdown on March 20, 2020; and 2) the holy month of Ramadan, which is observed only by Muslims, began on April 23, 2020 and ended on May 23, 2020. We focus on these holidays for several reasons. First, because they are either explicitly religious or have religious connotations,<sup>16</sup> we can expect religious leaders to influence how they are celebrated. Second, in addition to their religious requirements, these holidays have special meaning for both the individual and the community, which makes altering one's behavior costly.

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<sup>15</sup> In both countries, our sampling frame includes just over 50 percent of the population (Kazakhstan: 50.34 percent and Kyrgyzstan: 56.18 percent). Our sample largely mirrors the demographic profile of each country. See Table A1.

<sup>16</sup> During the Soviet era, celebrating Nawruz (*Nooruz*) became an important way for Muslims to express pride in Islam being part of their identity (Borbieva 2017, 159).

Third, because celebrating these holidays involves large public gatherings, individual compliance can avoid a potential super spreader event. Finally, focusing on specific holidays should improve an individual's ability to more accurately recall the extent to which they altered their behavior.

Respondents were also asked about their observance of funerals and weddings because, like these other holidays, they play a salient role across communities in Central Asia. Funerals and weddings are widely celebrated and often infused with religious meaning – in part, a legacy from the Soviet period when other forms of religious rituals were heavily restricted (Ro'i 2000, 509-49). Yet, they do not coincide with a specific date. This enables us to capture how individuals observed significant events that are more fluid in their daily lives.

The second measure of the dependent variable seeks to capture compliance with quotidian social distancing behaviors that are costly to the individual. Specifically, we constructed a social distancing index using information regarding respondent adoption of the following socially costly mitigation behaviors: 1) avoiding social gatherings; 2) avoiding physical contact with friends and family members; and 3) avoiding enclosed spaces outside their home. Those who adopted all three behaviors were given a score of 3, while those adopted two, one, or none of these behaviors were given scores of 2, 1, and 0, respectively.

Respondents indicated their degree of trust in religious leaders, politicians, and medical practitioners by choosing among the following options: “do not trust at all,” “do not trust very much,” “trust somewhat,” and “trust completely” (Figures A1-A3). Our survey also collected information on demographics and several alternative drivers of mitigation behavior adoption identified in the existing literature – perceived risk of self and loved ones contracting COVID-19 and socioeconomic status – as well as beliefs about whether specific mitigation policies were being



implemented by their government at the time of the survey. See Appendix Table A2 for details regarding the questions and response options used to measure each of these variables.

# Author Manuscript

## Results

We use logistic regressions to estimate the association between trust in religious leaders and voluntary compliance with social distancing guidelines.<sup>17</sup> These multivariate models included all the aforementioned variables as well as age, ethnicity, gender, and region fixed effects. In summary, we find support for both hypotheses but only in Kazakhstan.

In Kazakhstan, higher trust in religious leaders is both positively and consistently associated with the adoption of social distancing behaviors across all religious holidays and rituals (Figure 1, Table A3). The odds that individuals who indicate high levels of trust in religious leaders report altering their celebration of Nowruz, for example, are 79% higher compared to individuals who indicate no trust in religious leaders. Among Muslim respondents, the odds that individuals who indicate high levels of trust in religious leaders report altering their celebration of Ramadan are 93% higher compared to individuals reporting no trust in religious leaders. The odds that individuals who indicate high levels of trust in religious leaders report altering their celebration of wedding and funerals are 60% higher compared to individuals reporting no trust in religious leaders. At the same

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<sup>17</sup> In all our analyses, the reference category for trust in religious leaders and medical practitioners is “do not trust at all”. The trust in politicians variable was reverse coded (reference category: “trust completely”) to allow for a more intuitive interpretation of the coefficient. Specifically, it is easier to think about decreasing trust being associated with greater adoption of mitigation behaviors than increasing trust being associated with less adoption of mitigation behaviors. Importantly, this reverse coding does not impact the coefficient direction or magnitudes for the other variables in our models.

time, higher trust in religious leaders is not generally associated with any of our quotidian social distancing measures (Table A4). It is noteworthy, however, that the association between trust in religious leaders and one component of our social distancing index – reported avoidance of enclosed spaces – approached conventional levels of statistical significance ( $p = .08$ ). This behavior is the only one linked explicitly, though not exclusively, to attending services at places of worship.

[Figure 1 About Here]

By contrast, in Kyrgyzstan higher trust in religious leaders is positively associated with the adoption of social distancing behaviors only for Nowruz. While the relationship is not significant among respondents who indicated high levels of trust in religious leaders, it is significant among those who indicate medium levels of trust. The odds that individuals who indicate medium trust in religious leaders report altering their celebration of this holiday, are 121% higher compared to individuals who indicate no trust in religious leaders (Figure 2 and Table A5). Trust in religious leaders is also not associated with any of the quotidian social distancing measures (Table A6).

[Figure 2 About Here]

To address concerns of multicollinearity among our three measures of trust, we conducted several robustness tests. First, we examined the correlation between the trust variables in both countries. None of the trust variables in either country have a correlation above .5. To further address multicollinearity, we report results from estimating the specifications reported in Figures 1 and 2, but after sequentially introducing one measure of trust at a time: a) only including religious trust, b) including only religious trust and political trust, and c) including only religious trust and medical trust. While there is some marginal change in

our coefficients, our findings remain qualitatively unchanged. Third, to address the concern that a negative relationship between trust in politicians and social distancing conformance might be the product of multicollinearity (that is, the potential that the direction of an expected relationship is reversed due to the presence of other highly correlated variables in our model), we estimate these models with only political trust (excluding the other trust measures). The direction of the relationship between trust in politicians and compliance does not change in these specifications.

#### **THE PUZZLE: WHY KAZAKHSTAN AND NOT KYRGYZSTAN?**

Contrary to our expectations, we find that only in Kazakhstan is higher trust in religious leaders positively associated with the adoption of social distancing behaviors across all religious holidays and rituals. This is puzzling because, in addition to the two boundary conditions, they share several other traits that would lead us to expect similar outcomes. What might explain these puzzling findings? Our intuition is that even if religious leaders in both countries conveyed a unified message to their adherents, the content of their message may have differed in ways that could have reasonably affected compliance. We therefore conducted a systematic review of the muftiyat's statements concerning the government's social distancing policies covered in each country's national news media. We describe our methods and findings below, and then consider three potential alternative explanations.

#### **Comparing Messaging in Kazakhstan & Kyrgyzstan**

Both countries have multiple news sources that are aggregated or duplicated by larger media outlets and are widely available online.<sup>18</sup> To identify the muftiyat's statements concerning government health directives during the COVID-19 pandemic, we did an extensive search of the daily news for the time frame February 1-July 31, 2020 using several key terms: COVID-19, Coronavirus, Mufti, Muftiate, Spiritual Administration of Kazakhstan/Kyrgyzstan (SAMK), Islam, Muslim, imam, mosque, prayer, Nawruz, Ramadan, wedding, and funeral. We chose to analyze news media coverage of muftiyat statements rather than relying on statements posted on the muftiyat's official website for two main reasons. First, we cannot be reasonably confident that all or even a majority of adherents routinely access these websites for information, whereas there is evidence to suggest that they regularly use the Internet to access national news sources.<sup>19</sup> Second, coverage in the national media is a good indication that the muftiyat's messages were visible to the broader public.

For each country, we used the news articles uncovered in our search to evaluate the content of the muftiyat's messages across several dimensions. We assigned a positive score (+) if the messages met our criteria and a negative score (--) if they did not. Our evaluation of messaging regarding religious holidays (Ramadan) and life-cycle rituals (weddings and funerals) includes five key dimensions: 1) timing; 2) sequencing; 3) consistency; 4) alternatives; and 5) absolution. Timing refers to when the initial statement related to government health directives that specifically affected religious holidays and rituals was made; more specifically, a positive score indicates that the

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<sup>18</sup> See Appendix Tables A7, A8 and Online Appendix – Corresponding Sources for details.

<sup>19</sup> According to the most recent WVS (Wave 7, 2017-2020), more than 50 percent of the population in both countries uses the Internet to access news on a daily basis.

messaging began prior to or concurrently with the announcement of government policy and a negative score indicates that the messaging came after a government policy was already put in place. Sequencing refers to whether there was at least one week between the muftiyat's statement and the beginning of Ramadan.<sup>20</sup> Consistency refers to whether the muftiyat's statements conform to government policy as well as to whether their content is uniform over time; a positive score is assigned only if both attributes are fulfilled. Both alternatives and absolution are related to whether the statements provide some expectation that individual compliance with government health directives will not affect one's standing as a good Muslim. Statements are assigned a positive score if the alternatives provided are clear or specific and if they are explicitly deemed appropriate within Islam. Finally, if statements indicate that Muslims will receive blessings even if they do not observe religious holidays and rituals as usually prescribed by Islam, they are assigned a positive score for absolution.

The relevant dimensions for evaluating the muftiyat's messaging regarding quotidian forms of social distancing are: 1) timing; 2) consistency; and 3) alternatives. Like messaging regarding religious holidays and rituals, timing here refers to when the initial statement related to compliance with social distancing was made; a positive score is assigned when this statement was made prior to or concurrently with the announcement of government policy and a negative score is assigned when the statement was made subsequently. Consistency refers to whether the muftiyat's statements conform to the actual government policy in the short-term and the long-term. Consistency in the

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<sup>20</sup> Because life-cycle events do not follow a regular or predetermined schedule, this indicator does not apply to weddings and funerals.

short-term is designed to capture how quickly the muftiyat echoed the state's directive to adopt social distancing to mitigate the crisis; a positive score indicates that the statements are consistent for the outset and a negative score indicates that they were not. Consistency in the long-term captures whether the statements conformed over time; a positive score indicates that they did and a negative score that they did not. Like messaging regarding religious holidays and rituals, alternatives refers to whether the muftiyat's statements provided an alternative that is clear or specific and is explicitly deemed appropriate within Islam; they are assigned a positive score for having either of these attributes.

#### **Key Difference: Offering Alternatives (& Absolution)**

Comparing the muftiyat's statements concerning religious holidays and rituals across the five dimensions described above in Kazakhstan and Kyrgyzstan reveals that there are several similarities when it comes to messaging and only one key difference (see Table 1). The similarities include timing and sequencing for both Ramadan and funerals. In both countries, for example, the muftiyat not only advised their adherents to refrain from any mass gatherings during the Holy Month, including *iftars*, but also issued their initial statement more than a week in advance of its beginning on April 24, 2020. The muftiyat's statements regarding Ramadan and funerals were also consistent both with respect to government policy and their content over time. In both countries, for example, the muftiyat announced in March 2020 that the closing of mosques meant that funeral rites and memorials would have to be performed at home and without extended relatives in attendance and reiterated this policy in the later months (May through July 2020) of the pandemic.

[Table 1 About Here]

The only significant difference between the content of the muftiyat's statements in Kazakhstan and Kyrgyzstan concerns alternatives and absolution. In Kazakhstan, the muftiyat consistently offered clear alternatives to their adherents that were deemed appropriate and included explicit absolution for engaging in these alternatives. Concerning Ramadan, for example, Kazakhstan's Grand Mufti, Nauryzbay kazhy Taganuly, urged Muslims to hold meals to break the fast (*iftars*<sup>21</sup>) only at home with family members, excused frontline workers from fasting, created an online payment system for Muslims to make donations (*zakat al-fitr*<sup>22</sup>) that are usually received in the mosque, and gave permission for Muslims to read alternative prayers at home in lieu of attending mosque to hear sermons and participating in communal prayer, as is customary, on *Oraza Ait (Eid al-Fitr)* to celebrate the end of Ramadan. He also reassured Muslims that they were meeting their obligations under quarantine and would receive Allah's "mercy and reward." In contrast, Kyrgyzstan's muftiyat does not appear to have offered clear alternatives for celebrating religious holidays. Rather, the chief mufti himself, Maksatbek azhi Toktomushev, performed live animal sacrifices against the coronavirus and prayed that COVID-19 would stop spreading in Kyrgyzstan (Tokoev 2020).

Concerning messaging about social distancing requirements that are not specifically related to religious holidays and rituals, there are analogous similarities and differences (see Table 2). In both countries, the timing of the muftiyat's initial statements regarding compliance with general

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<sup>21</sup> The iftar is the meal served to break the fast and is usually observed in public places and large groups.

<sup>22</sup> Zakat al-fitr is an offering required by every adult Muslim to help the poor or anyone in need. It must be received before the Eid al-Fitr prayer at the end of Ramadan.



forms of social distancing coincided with the implementation of government policies. However, their short-term consistency differed. Whereas the muftiyat's statements about social distancing in Kazakhstan conformed to government policy from the outset, they did not in Kyrgyzstan. At the beginning of the pandemic, for example, the muftiyat of Kyrgyzstan announced that although it encouraged all Muslims to "take care of [themselves]," it could not recommend that they not come to the mosque for Friday prayers and would not turn anyone away (Masalieva 2020a). Less than two weeks later, however, the muftiyat reversed course and urged Muslims "to observe safety precautions" and "decline visits to crowded places" (Masalieva 2020b). The muftiyat's statements then continued to be consistent with government policy over the long-term, as they did in Kazakhstan.

[Table 2 About Here]

Like messaging related to religious ceremonies and rituals, the key difference is that only in Kazakhstan did the muftiyat consistently offer clear alternatives to their adherents that were explicitly deemed to be compatible with Islam. In what appears to be his first public statement on regarding the COVID-19 pandemic, for example, the Grand Mufti emphasized that, according to the Sharia, quarantine was not only appropriate "to stop the spread of the disease" but also required because "[o]ur prophet strictly ordered us not to bring harm to ourselves or to the people around us" (Abubakarova 2020). Subsequently, the muftiyat of Kazakhstan issued a formal ruling based on Islamic law (*fatwa*) suspending Friday prayers (*juma namaz*) in mosques and encouraging Muslims to pray at home instead. When mosques were briefly allowed to re-open in late May, the Grand Mufti made a special appeal to Muslims to continue to follow government health directives regarding social distancing as part of their duty to protect themselves and others. While the muftiyat in

Kyrgyzstan also continued to encourage adherents to follow similar guidelines, even as mosques began to reopen in early June, and so were consistent with government guidelines over the long-term, the statements did not make specific references to Islamic law or custom, and thus did not offer clear and appropriate alternatives.

### **Alternative Explanations**

We now consider the three most plausible alternative explanations for why we find an association between trust in religious leaders and voluntary compliance in Kazakhstan but not Kyrgyzstan. First, perhaps Kazakhstan's greater state capacity accounts for this difference. However, as noted above, there is good reason to be skeptical that state capacity increases compliance – skepticism that is corroborated by existing research on the relationship between state capacity and compliance with COVID-19 mitigation directives (Kavanagh and Singh 2020). Moreover, our empirical analyses attempt to account for state capacity differences by including measures for whether individuals believe specific government-mandated mitigation policies are in effect. Specifically, we asked respondents if they believed the government was enforcing two mitigation policies at the time of the survey: 1) restricting gatherings to a small number of people; and 2) closing places of worship. Both individual awareness and likelihood of conforming with perceived mitigation policies will be greater in settings with higher state capacity, where individuals would expect more efficient enforcement of policies, better detection of nonconformance, and stricter punishment. Thus, controlling for perceived government policies also helps in part to account for state capacity.

A second possibility is that the religious structure is more centralized in Kazakhstan than Kyrgyzstan, allowing religious leaders greater control over messaging. Our examination of the religious institutional structures in Kazakhstan and Kyrgyzstan (pages 12-16) provides little support

for this explanation, with both countries exhibiting a comparably high degree of centralization.

Moreover, if this were the case, then we would expect to find greater uniformity in the muftiyat's messaging in Kazakhstan compared to Kyrgyzstan. Yet instead, we observe that the messaging in both countries is quite similar regarding its timing, sequencing, and consistency – with both government policy and content over time.

Finally, differences in media coverage of religious leaders between the two countries also cannot explain why we see the association in Kazakhstan and not Kyrgyzstan. During the pandemic, restrictions on press freedom and crackdowns on media outlets were reported in both countries,<sup>23</sup> and the relatively greater freedoms enjoyed by media in Kyrgyzstan should have resulted in more, not less, thorough coverage of religious leaders' statements.

#### **AN ALTERNATIVE MECHANISM: REDUCING THE COSTS OF COMPLIANCE**

These findings improve our understanding of the relationship between trust and pro-social behavior in three significant ways. First, we shift attention to the influence of trust in religious leaders – an understudied but potentially influential group of leaders – on voluntary compliance. We accomplish this by specifying two boundary conditions that enable us to theorize about the direction of religious leaders' influence within a given country: 1) the existence of a dominant religion; and 2) the centralization of religious authority. We argue that greater trust in religious leaders will increase compliance in countries with a dominant religion and centralized religious authority because religious leaders will offer a message that is both coherent and aligns with state directives. We then

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<sup>23</sup> See, for example: Human Rights Watch, "Central Asia: Respect Rights in Covid-19 Responses," April 23, 2020. <https://www.hrw.org/news/2020/04/23/central-asia-respect-rights-covid-19-responses>

test our core hypothesis using data from original surveys fielded during the COVID-19 pandemic in two countries that meet these conditions – Kazakhstan and Kyrgyzstan. Controlling for several other potential drivers of compliance, we examine whether trust in religious leaders affected individual compliance with social distancing guidelines. Our results suggest an empirical puzzle: Despite their many similarities, only in Kazakhstan do we find a positive and significant association for all religious holidays and rituals.

Second, in seeking to explain this puzzle, we provide some empirical evidence to support Hardin's (2002) critical insight that for trust to resolve the collective action problem, it must go beyond mere affect. Although the evidence from our media analysis is not conclusive, it suggests that the combination of offering clear substitutes that are deemed compatible with Islam (i.e., practical solutions) and providing absolution (i.e., spiritual solutions) is driving the relationship we find between trust in religious leaders and voluntary compliance. We argue that this facilitated compliance by lowering the costs that individuals incurred for engaging in social distancing. Given religiously grounded justifications for engaging in mitigation behaviors, individuals were able to reconcile their religious obligations with their civic responsibilities. In sum, by offering both practical and spiritual solutions to mitigate the individual costs of abstaining from proscribed practices, religious leaders in Kazakhstan demonstrated that they were committed to acting in the interests of their adherents.

Finally, our research identifies a novel mechanism whereby trust can facilitate pro-social behavior beyond our cases: reducing the costs of compliance. As the case of Kazakhstan suggests, for trust to resolve the collective action problem, the trusted official must offer solutions that mitigate the costs of compliance. Religious leaders in Kazakhstan did not transfer the costs of compliance to

individual adherents but rather offered solutions to reduce those costs, thereby demonstrating their trustworthiness and increasing voluntary compliance. This finding has much broader implications for our understanding of the relationship between trust, norms, and voluntary compliance. Much of the literature has focused on norms as the key mechanism whereby trust promotes pro-social behavior because it increases an individual's willingness to bear the costs of compliance (Ostrom 2000; Putnam 2000). Our research suggests that – particularly where costs are high – it is not sufficient for leaders, whether religious or political, to rely on trust alone. They must demonstrate their trustworthiness by designing policies that reduce these costs. It also suggests, moreover, that such policies can have a positive influence on pro-social behavior absent the mediating effect of norms and beyond small groups (Olson 1965).

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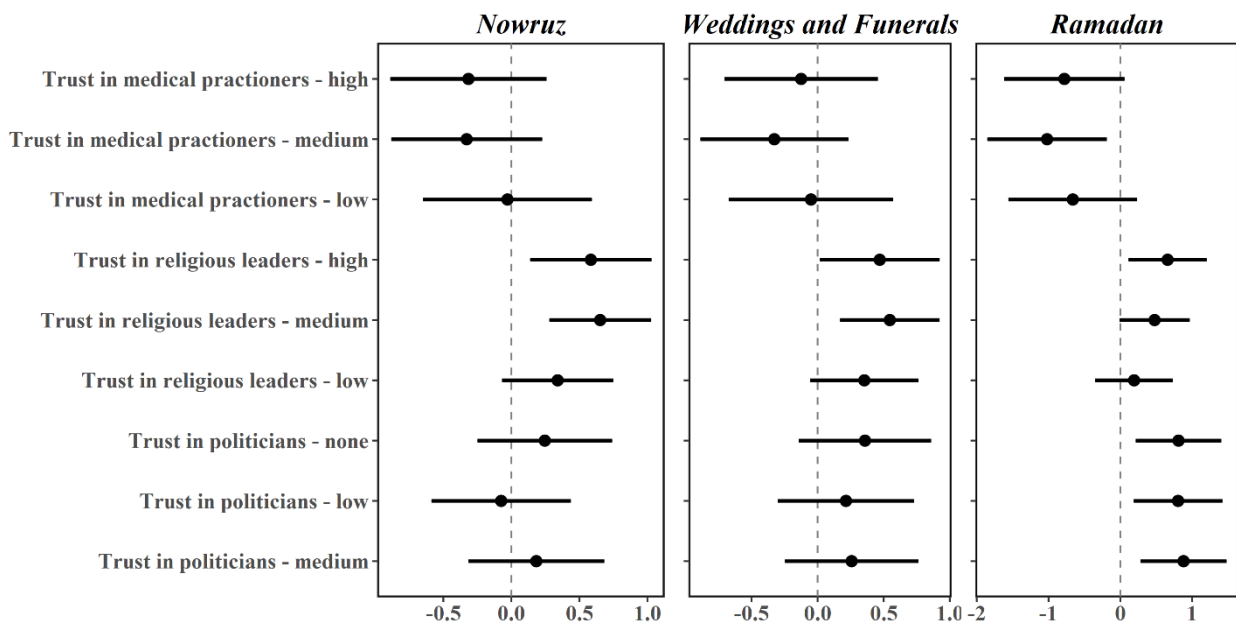
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**SUPPORTING INFORMATION**

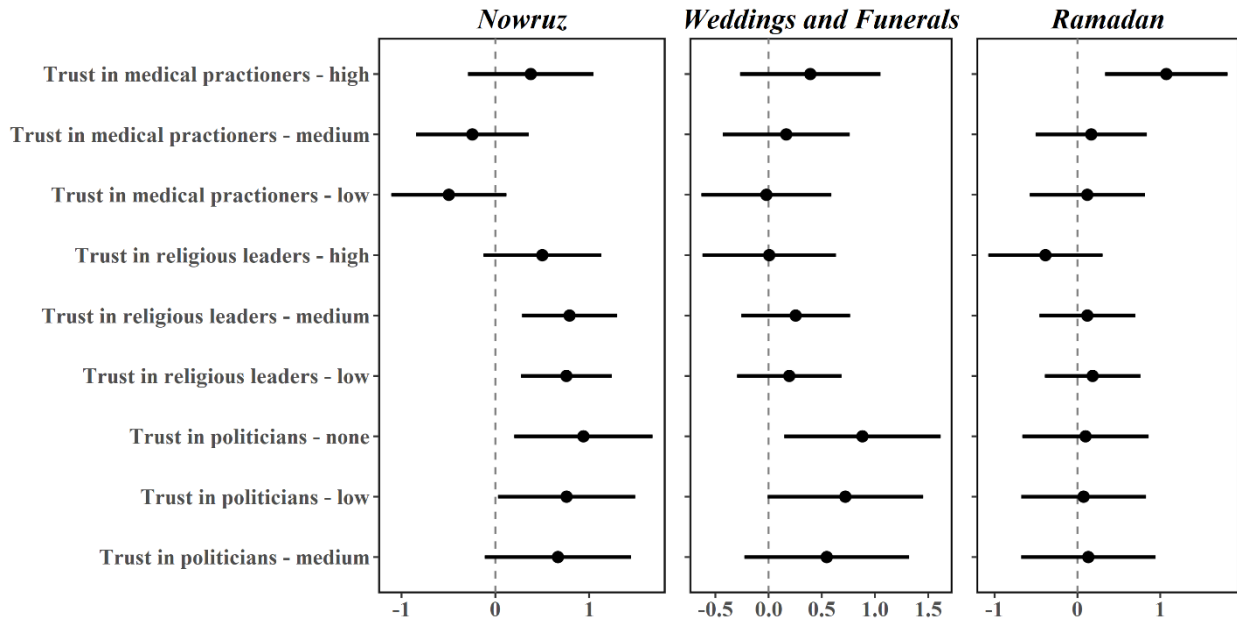
Appendix S1. Supplemental Materials

**Figure 1**  
**Types of trust and changes to celebrations of national holidays in Kazakhstan**



Note: The reference group for medical practitioners and religious leaders is no trust. The reference group for politicians is high trust. 95% confidence intervals.

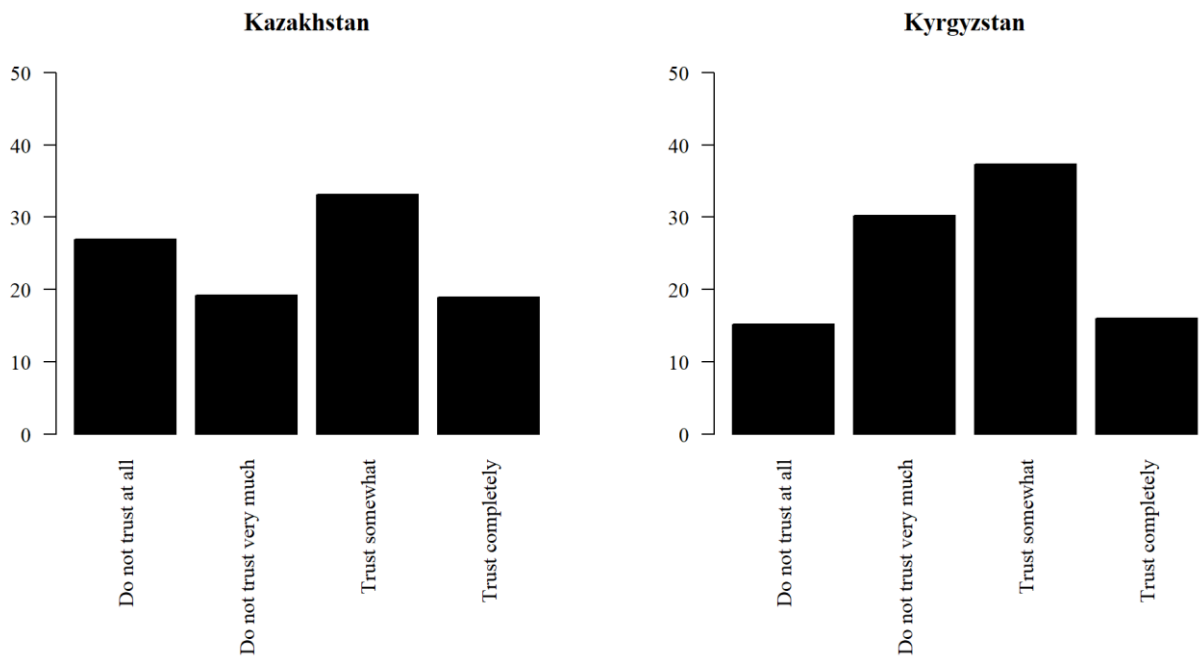
**Figure 2**  
**Types of trust and changes to celebrations of national holidays in Kyrgyzstan**



Note: The reference group for medical practitioners and religious leaders is no trust. The reference group for politicians is high trust. 95% confidence intervals.

Figure A1

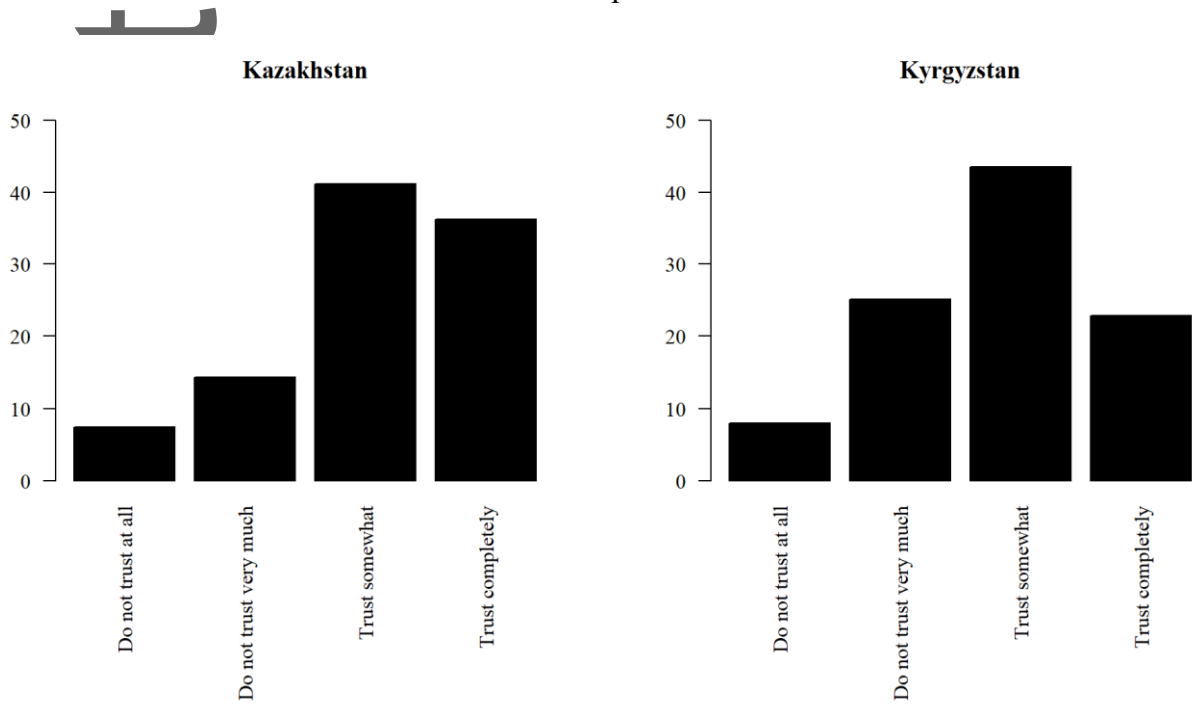
Trust in religious leaders





**Figure A2**

Trust in medical practitioners



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**Figure A3**

Trust in politicians

TRUST IN RELIGIOUS LEADERS & COMPLIANCE

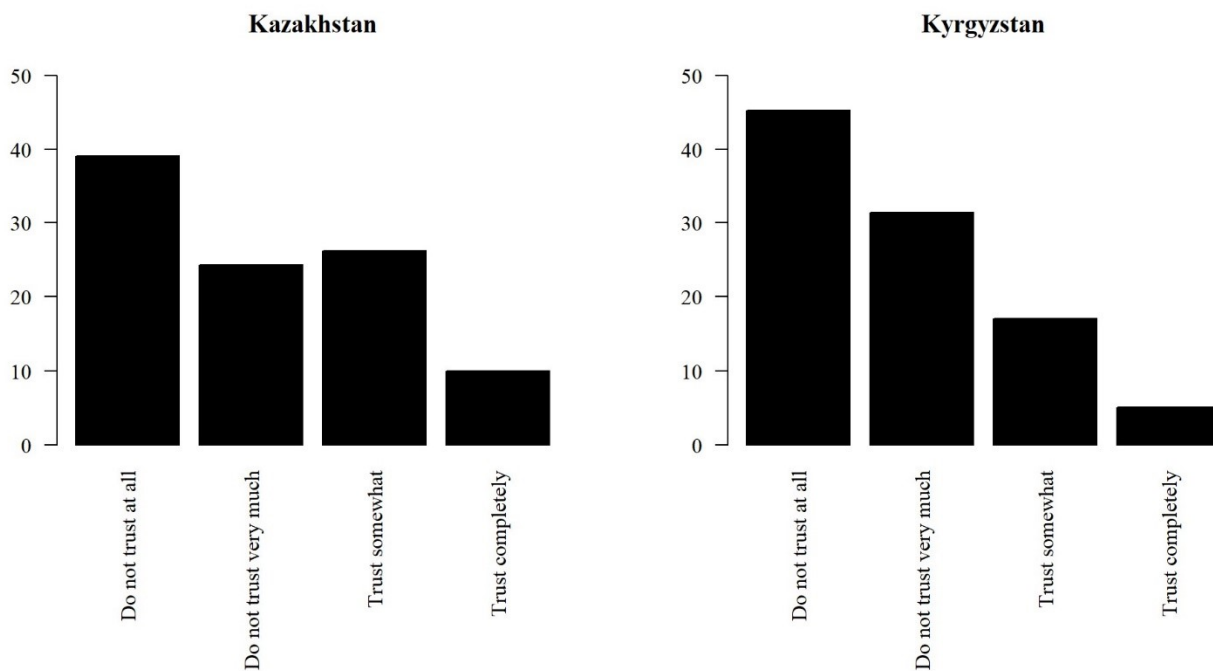


Table 1. Comparing Muftiyat Messaging: Religious Holidays and Life-Cycle Rituals

	Kazakhstan	Kyrgyzstan
Timing		
Ramadan	+	+
Weddings/Funerals	+	+
Sequencing (Ramadan)	+	+
Consistency (Ramadan)		
Government policy	+	+
Content	+	+

TRUST IN RELIGIOUS LEADERS & COMPLIANCE

Consistency (weddings/funerals)		
Government policy	+	+
Content	+	+
Alternatives (Ramadan)		
Clear/Specific	+	--
Deemed appropriate	+	--
Alternatives (weddings/funerals)		
Clear/Specific	+	--
Deemed appropriate	+	--
Absolution		
Ramadan	+	--
Weddings/Funerals	+	--
<p>Note: The sources used to assign positive or negative scores are indicated in the line below the + or – sign and can be found in Appendix Table A7.</p>		

Table 2. Comparing Muftiyat Messaging: Social Distancing		
	<b>Kazakhstan</b>	<b>Kyrgyzstan</b>
Timing	+	+

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Consistency		
Short-term	+	--
Long-term	+	+
Alternatives		
Clear/Specific	+	--
Deemed appropriate	+	--
<p>Note: The sources used to assign positive or negative scores are indicated in the line below the + or – sign and can be found in Appendix Table A8.</p>		

Table A1: Comparing population and sample demographics

Variable	Kazakhstan <sup>a</sup>	Kazakhstan – sample	Kyrgyzstan <sup>a</sup>	Kyrgyzstan – sample
<b>Gender</b>	<b>Female:</b> 54.5% <b>Male:</b> 45.5%	<b>Female:</b> 54.8% <b>Male:</b> 45.2%	<b>Female:</b> 52% <b>Male:</b> 48%	<b>Female:</b> 62.3% <b>Male:</b> 36.5%
<b>Ethnicity</b>	<b>Kazakh:</b> 68% <b>Russian:</b> 19.3% <b>Other:</b> 12.7%	<b>Kazakh:</b> 68.1% <b>Russian:</b> 20.4% <b>Other:</b> 11.5%	<b>Kyrgyz:</b> 71.4% <b>Russian:</b> 9% <b>Uzbek:</b> 14.4% <b>Other:</b> 5.2%	<b>Kyrgyz:</b> 79.6% <b>Russian:</b> 4.8% <b>Uzbek:</b> 6.6% <b>Other:</b> 8%
<b>Age *</b> <i>(Share of 15+ vs 18+ population)</i>	<b>15-24 years:</b> 17.6% <b>25-54 years:</b> 57.2% <b>55-64 years:</b> 13.9% <b>65+:</b> 11.4%	<b>18-24 years:</b> 14.4% <b>25-54 years:</b> 67.5% <b>55-64 years:</b> 16.1% <b>65+:</b> 2%	<b>15-24 years:</b> 22.55% <b>25-54 years:</b> 57.49% <b>55-64 years:</b> 11.62% <b>65+:</b> 8.33%	<b>18-24 years:</b> 25% <b>25-54 years:</b> 65% <b>55-64 years:</b> 7.2% <b>65+:</b> 2.5%
<b>Religion</b>	<b>Muslim:</b> 70.2% <b>Christian:</b> 26.2% <b>Other:</b> 3.6%	<b>Muslim:</b> 65.7% <b>Christian:</b> 18.3% <b>Other:</b> 16%	<b>Muslim:</b> 90% <b>Christian:</b> 7% <b>Other:</b> 3%	<b>Muslim:</b> 87.2% <b>Christian:</b> 4.2% <b>Other:</b> 8.6%
a - Latest estimates procured from World Factbook ( <a href="https://www.cia.gov/the-world-factbook/countries/kazakhstan/#people-and-society">https://www.cia.gov/the-world-factbook/countries/kazakhstan/#people-and-society</a> )				

Table A2: Main independent variables used in analyses

Measure	Survey prompt	Levels
Trust in key experts and leaders	<p>“In general, how much do you trust the following groups of people?”</p> <ol style="list-style-type: none"> <li>1) Medical practitioners</li> <li>2) Political leaders</li> <li>3) Religious leaders</li> </ol>	<ol style="list-style-type: none"> <li>1. do not trust at all</li> <li>2. do not trust very much</li> <li>3. trust somewhat</li> <li>4. trust completely</li> </ol>
Socioeconomic status	<p>“Which of the following statements most accurately reflects the financial situation of your family before COVID-related policies took effect?”</p>	<ol style="list-style-type: none"> <li>1. We do not have enough money for food</li> <li>2. We have enough money for food, but not enough money for clothes</li> <li>3. We have enough money to buy food and clothes, but not enough to buy expensive items, such as a TV or refrigerator</li> <li>4. We have expensive items, such as a new TV or refrigerator, but no car</li> <li>5. We can buy almost anything we want.</li> </ol>
Perceived risk of contracting COVID-19 – self	<p>“To what extent are you concerned about your personal risk of being infected with COVID-19?”</p>	<ol style="list-style-type: none"> <li>1. Not at all</li> <li>2. Somewhat</li> <li>3. Very much</li> <li>4. Extremely</li> </ol>
Perceived risk of contracting COVID-19 – loved ones	<p>“To what extent are you concerned about your loved ones being infected with COVID-19?”</p>	<ol style="list-style-type: none"> <li>1. Not at all</li> <li>2. Somewhat</li> <li>3. Very much</li> <li>4. Extremely</li> </ol>
Perception of mitigation policies	<p>“What actions has your government enacted to restrict the spread of COVID-19?”</p>	<ol style="list-style-type: none"> <li>1. Never in force</li> <li>2. Previously in force but not now</li> <li>3. Currently in force</li> <li>4. Not sure</li> </ol>

	1) Restricted gatherings only to people within your immediate household 2) Closed places of worship	<i>Coded 1 if respondents chose either response options 2 or 3, and 0 otherwise.</i>
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Table A3: Types of trust and changes in celebration – Kazakhstan

	Modifying behaviors due to COVID-19		
	Nowruz	Weddings - Funerals	Ramadan
Trust in politicians – medium (ref: high)	.183 (.255)	.257 (.258)	.881* (.305)
Trust in politicians – low (r: high)	-.075 (.261)	.214 (.263)	.804* (.316)
Trust in politicians – none (r: high)	.246 (.252)	.358 (.256)	.810* (.304)
Trust in religious leaders – low (r: lowest)	.340 (.209)	.353 (.209)	.192 (.277)
Trust in religious leaders – medium (r: lowest)	.653* (.191)	.546* (.192)	.477 (.250)
Trust in religious leaders – high (r: lowest)	.584*	.470*	.659*

TRUST IN RELIGIOUS LEADERS & COMPLIANCE

	(.228)	(.231)	(.278)
Trust in medical practitioners – low (r: lowest)	-.029 (.317)	-.050 (.317)	-.662 (.457)
Trust in medical practitioners – medium (r: lowest)	-.329 (.283)	-.327 (.286)	-1.021* (.425)
Trust in medical practitioners – high (r: lowest)	-.316 (.293)	-.125 (.296)	-.780 (.428)
Belief that policies limit gatherings	.044 (.089)	.046 (.090)	-.096 (.116)
Belief that policies require closure of places of worship	.112 (.139)	.068 (.139)	-.203 (.187)
Socioeconomic status – low (r: lowest)	-.461 (.298)	-.454 (.307)	-.026 (.374)
Socioeconomic status – medium (r: lowest)	-.589* (.276)	-.769* (.285)	-.408 (.352)
Socioeconomic status – high (r: lowest)	-.546 (.286)	-.775* (.295)	-.362 (.365)



TRUST IN RELIGIOUS LEADERS & COMPLIANCE

Socioeconomic status – highest (r: lowest)	-.634 (.460)	-.854 (.467)	-.873 (.564)
Age	.023* (.005)	.019* (.005)	.032* (.006)
Perceived risk of contracting C-19 – low (r: lowest)	.318 (.202)	.395 (.202)	.291 (.251)
Perceived risk of contracting C-19 – medium (r: lowest)	.503* (.231)	.654* (.233)	.507 (.286)
Perceived risk of contracting C-19 – high (r: lowest)	.707* (.284)	.720* (.285)	.527 (.348)
Perceived risk of loved ones contracting C-19 – low (r: lowest)	.082 (.298)	-.381 (.304)	-.227 (.348)
Perceived risk of loved ones contracting C-19 – med (r: lowest)	.076 (.303)	-.205 (.310)	-.202 (.347)
Perceived risk of loved ones contracting C-19 – high (r: lowest)	-.014 (.329)	-.320 (.333)	-.112 (.384)
Ethnicity – Russian (r: Kazakhs)	-.319 (.171)	-.345* (.172)	.742 (.967)
Ethnicity – Other (r: Kazakhs)	-.312 (.204)	-.373 (.208)	.073 (.257)

TRUST IN RELIGIOUS LEADERS & COMPLIANCE

Gender (r: women)	.324* (.132)	.225 (.134)	.539* (.170)
Religiosity – low (r: lowest)	.445 (.265)	.615* (.265)	.541 (.546)
Religiosity – medium (r: lowest)	.387 (.254)	.675* (.255)	.414 (.515)
Religiosity – high (r: lowest)	.751* (.276)	1.167* (.278)	.779 (.528)
Observations	937	936	621
<p><b>Notes:</b> Estimation method is logistic regression. Unit of analysis is individual. Specifications include region fixed effects. Standard errors are in parentheses. * Indicates statistical significance at 5% level.</p>			

Table A4: Types of trust and quotidian social distancing – Kazakhstan

	Modifying behaviors due to COVID-19			
	Social Distancing Index	Avoid contact	Avoid enclosed spaces	Avoid social gatherings
Trust in politicians – medium (ref: high)	-.260 (.292)	-.211 (.340)	-.472 (.369)	.159 (.501)

TRUST IN RELIGIOUS LEADERS & COMPLIANCE

Trust in politicians – low (r: high)	-.212 (.295)	-.186 (.344)	-.218 (.376)	.187 (.508)
Trust in politicians – none (r: high)	-.485 (.284)	-.478 (.330)	-.556 (.362)	.453 (.495)
Trust in religious leaders – low (r: lowest)	-.023 (.213)	-.098 (.248)	-.137 (.247)	.614 (.419)
Trust in religious leaders – medium (r: lowest)	.279 (.192)	.215 (.224)	.277 (.225)	.360 (.353)
Trust in religious leaders – high (r: lowest)	.321 (.241)	.093 (.277)	.506 (.293)	.597 (.451)
Trust in medical practitioners – low (r: lowest)	.315 (.325)	.438 (.372)	.128 (.378)	.273 (.607)
Trust in medical practitioners – medium (r: lowest)	-.194 (.284)	-.152 (.321)	-.244 (.329)	-.072 (.505)
Trust in medical practitioners – high (r: lowest)	.114 (.297)	.204 (.337)	.058 (.346)	.179 (.534)
Belief that policies limit gatherings	.020 (.094)	.034 (.108)	-.034 (.110)	.106 (.176)

TRUST IN RELIGIOUS LEADERS & COMPLIANCE

Belief that policies require closure of places of worship	.021 (.140)	-.003 (.161)	-.010 (.163)	.380 (.263)
Socioeconomic status – low (r: lowest)	-.161 (.319)	-.078 (.367)	-.048 (.363)	.401 (.549)
Socioeconomic status – medium (r: lowest)	-.212 (.297)	-.193 (.341)	-.021 (.337)	.160 (.496)
Socioeconomic status – high (r: lowest)	-.465 (.306)	-.517 (.351)	-.267 (.347)	.243 (.520)
Socioeconomic status – highest (r: lowest)	.427 (.492)	.987 (.649)	.126 (.560)	1.210 (1.134)
Age	.021* (.005)	.021* (.006)	.019* (.006)	.023* (.010)
Perceived risk of contracting C-19 – low (r: lowest)	.431* (.205)	.399 (.236)	.308 (.242)	.213 (.365)
Perceived risk of contracting C-19 – medium (r: lowest)	.731* (.238)	.753* (.278)	.621* (.283)	.526 (.434)
Perceived risk of contracting C-19 – high (r: lowest)	.760* (.297)	.755* (.351)	.688 (.360)	.746 (.577)
Perceived risk of loved ones contracting C-19 – low (r: lowest)	-.318 (.304)	-.244 (.345)	-.404 (.366)	.297 (.512)
Perceived risk of loved ones contracting	-.203	-.032	-.409	.298

TRUST IN RELIGIOUS LEADERS & COMPLIANCE

C-19 – med (r: lowest)	(.311)	(.353)	(.374)	(.519)
Perceived risk of loved ones contracting C-19 – high (r: lowest)	-.200 (.338)	-.057 (.387)	-.321 (.409)	.119 (.570)
Ethnicity – Russian (r: Kazakhs)	-.432* (.174)	-.311 (.203)	-.265 (.206)	-.378 (.318)
Ethnicity – Other (r: Kazakhs)	-.607* (.214)	-.540* (.248)	-.701* (.244)	-.156 (.409)
Gender (r: women)	-.363* (.138)	-.378* (.159)	-.208 (.162)	-.194 (.258)
Religiosity – low (r: lowest)	.086 (.267)	.056 (.301)	.083 (.299)	.322 (.462)
Religiosity – medium (r: lowest)	-.043 (.256)	-.039 (.289)	-.023 (.286)	.120 (.429)
Religiosity – high (r: lowest)	.233 (.283)	.284 (.324)	.388 (.326)	-.092 (.479)
Observations	943	943	943	943
<p><b>Notes:</b> Estimation method is logistic regression. Unit of analysis is individual. Specifications include region fixed effects. Standard errors are in parentheses. * Indicates statistical significance at 5% level.</p>				

	Modifying behaviors due to COVID-19		
	Nowruz	Weddings - Funerals	Ramadan
Trust in politicians – medium (ref: high)	.668 (.398)	.546 (.395)	.132 (.414)
Trust in politicians – low (r: high)	.759* (.374)	.721 (.373)	.075 (.384)
Trust in politicians – none (r: high)	.939* (.376)	.881* (.375)	.098 (.389)
Trust in religious leaders – low (r: lowest)	.758* (.247)	.194 (.250)	.184 (.294)
Trust in religious leaders – medium (r: lowest)	.791* (.258)	.254 (.261)	.120 (.296)
Trust in religious leaders – high (r: lowest)	.501 (.320)	.006 (.320)	-.386 (.352)
Trust in medical practitioners – low (r: lowest)	-.496 (.313)	-.021 (.312)	-.214 (.355)
Trust in medical practitioners – medium (r: lowest)	-.245	.166	-.178

TRUST IN RELIGIOUS LEADERS & COMPLIANCE

	(.307)	(.305)	(.342)
Trust in medical practitioners – high (r: lowest)	.378 (.342)	.392 (.337)	.120 (.377)
Belief that policies limit gatherings	.317* (.149)	.393* (.146)	.167 (.156)
Belief that policies require closure of places of worship	.709* (.242)	1.005* (.236)	1.074* (.271)
Socioeconomic status – low (r: lowest)	-.354 (.232)	-.187 (.230)	-.050 (.247)
Socioeconomic status – medium (r: lowest)	-.052 (.219)	.009 (.215)	.162 (.231)
Socioeconomic status – high (r: lowest)	.083 (.249)	-.013 (.240)	-.086 (.260)
Socioeconomic status – highest (r: lowest)	-.379 (.280)	-.358 (.280)	-.557 (.288)
Age	.002 (.006)	.003 (.006)	-.003 (.006)

TRUST IN RELIGIOUS LEADERS & COMPLIANCE

Perceived risk of contracting C-19 – low (r: lowest)	.136 (.335)	-.070 (.334)	.157 (.375)
Perceived risk of contracting C-19 – medium (r: lowest)	.106 (.356)	.081 (.353)	.610 (.398)
Perceived risk of contracting C-19 – high (r: lowest)	-.042 (.423)	.357 (.416)	.498 (.454)
Perceived risk of loved ones contracting C-19 – low (r: lowest)	.576 (.384)	.474 (.378)	-.041 (.416)
Perceived risk of loved ones contracting C-19 – med (r: lowest)	.569 (.394)	.320 (.383)	-.164 (.427)
Perceived risk of loved ones contracting C-19 – high (r: lowest)	.606 (.428)	.148 (.413)	-.187 (.459)
Ethnicity – Russian (r: Kyrgyz)	-1.417* (.327)	-.498 (.313)	.632 (1.059)
Ethnicity – Uzbek (r: Kyrgyz)	-.594* (.290)	.744* (.345)	.386 (.306)
Ethnicity – Other (r: Kyrgyz)	-.452 (.254)	-.210 (.252)	.292 (.303)



TRUST IN RELIGIOUS LEADERS & COMPLIANCE

Gender (r: women)	.051 (.147)	.089 (.145)	-.024 (.152)
Religiosity – low (r: lowest)	.440 (.304)	-.100 (.303)	.905* (.396)
Religiosity – medium (r: lowest)	.426 (.284)	.047 (.286)	.797* (.369)
Religiosity – high (r: lowest)	.505 (.309)	.125 (.309)	.941* (.384)
Observations	902	899	786
<p><b>Notes:</b> Estimation method is logistic regression. Unit of analysis is individual. Specifications include region fixed effects. Standard errors are in parentheses. * Indicates statistical significance at 5% level.</p>			

Table A6: Types of trust and quotidian social distancing – Kyrgyzstan

	Modifying behaviors due to COVID-19			
	Social Distancing Index	Avoid contact	Avoid enclosed spaces	Avoid social gatherings
Trust in politicians – medium (ref: high)	1.190* (.395)	1.364* (.573)	1.806* (.671)	.959* (.469)
Trust in politicians – low (r: high)	1.546*	1.808*	1.866*	1.386*

TRUST IN RELIGIOUS LEADERS & COMPLIANCE

	(.377)	(.551)	(.656)	(.452)
Trust in politicians – none (r: high)	1.639* (.379)	1.748* (.554)	2.198* (.657)	1.469* (.452)
Trust in religious leaders – low (r: lowest)	-.287 (.231)	-.276 (.273)	.034 (.280)	-.300 (.273)
Trust in religious leaders – medium (r: lowest)	-.128 (.238)	-.349 (.284)	.317 (.287)	-.058 (.281)
Trust in religious leaders – high (r: lowest)	-.440 (.293)	-.449 (.354)	.217 (.353)	-.571 (.341)
Trust in medical practitioners – low (r: lowest)	.470 (.310)	.149 (.369)	.265 (.372)	.595 (.336)
Trust in medical practitioners – medium (r: lowest)	.389 (.305)	-.009 (.361)	.337 (.362)	.418 (.326)
Trust in medical practitioners – high (r: lowest)	.533 (.326)	.238 (.386)	.301 (.390)	.538 (.356)
Belief that policies limit gatherings	-.409* (.135)	-.444* (.162)	-.234 (.162)	-.513* (.156)
Belief that policies require closure of	.420	.792* (.162)	.201	.412

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places of worship	.(233)	.(311)	.(291)	.(268)
Socioeconomic status – low (r: lowest)	.299 .(216)	.403 .(274)	.032 .(262)	.572* .(244)
Socioeconomic status – medium (r: lowest)	.541* .(199)	.804* .(254)	.095 .(244)	.772* .(230)
Socioeconomic status – high (r: lowest)	.602* .(222)	.934* .(279)	.149 .(274)	.771* .(259)
Socioeconomic status – highest (r: lowest)	.275 .(269)	.454 .(338)	.147 .(317)	.335 .(299)
Age	.009 .(005)	.014* .(006)	.003 .(006)	.006 .(006)
Perceived risk of contracting C-19 – low (r: lowest)	.381 .(322)	.017 .(393)	.240 .(404)	.623 .(354)
Perceived risk of contracting C-19 – medium (r: lowest)	.412 .(339)	-.207 .(411)	.597 .(418)	.530 .(374)
Perceived risk of contracting C-19 – high (r: lowest)	.717 .(400)	.463 .(472)	.907 .(481)	.493 .(446)
Perceived risk of loved ones contracting	.283	.761	-.193	.248

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C-19 – low (r: lowest)	.381 (.381)	.532 (.532)	.475 (.475)	.415 (.415)
Perceived risk of loved ones contracting C-19 – med (r: lowest)	.824* (.386)	1.526* (.535)	.264 (.474)	.655 (.421)
Perceived risk of loved ones contracting C-19 – high (r: lowest)	.981* (.415)	1.684* (.560)	.333 (.503)	.852 (.456)
Ethnicity – Russian (r: Kyrgyz)	-.187 (.298)	-.593 (.392)	.080 (.367)	-.140 (.352)
Ethnicity – Uzbek (r: Kyrgyz)	.605* (.261)	.700* (.318)	-.095 (.352)	1.053* (.345)
Ethnicity – Other (r: Kyrgyz)	-.204 (.241)	-.070 (.285)	.275 (.280)	-.628* (.270)
Gender (r: women)	-.154 (.133)	-.265 (.167)	-.029 (.165)	-.149 (.156)
Religiosity – low (r: lowest)	.086 (.292)	-.323 (.366)	.257 (.373)	.082 (.337)
Religiosity – medium (r: lowest)	.182 (.276)	-.041 (.340)	.188 (.353)	.142 (.315)

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Religiosity – high (r: lowest)	.348 (.295)	.048 (.365)	.415 (.374)	.242 (.339)
Observations	898	898	898	898
<p><b>Notes:</b> Estimation method is logistic regression. Unit of analysis is individual. Specifications include region fixed effects. Standard errors are in parentheses. * Indicates statistical significance at 5% level.</p>				

Table A7: Comparing Muftiyat Messaging – Religious Holidays and Life-Cycle Rituals		
	Kazakhstan	Kyrgyzstan
Timing		
Ramadan	+ (KazA2,A7)	+ (KyrA1-A3)
Weddings/Funerals	+ (KazA1,B3)	+ (KyrB5)
Sequencing (Ramadan)	+ (KazA2)	+ (KyrA1)
Consistency (Ramadan)		
Government policy	+ (KazA2-A8,A10)	+ (KyrA1-A3)
Content	+ (KazA2-A8,A10)	+ (KyrA1-A3)
Consistency (weddings/funerals)		
Government policy	+ (KazA1,B3)	+ (KyrB5)

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Content	(KazA8,A11-12 KazB3-B4) +	(KyrA4,B5, B10) +
	(KazA8,A11-12, KazB3-B4)	(KyrA4,B5, B10)
Alternatives (Ramadan)		
Clear/Specific	+	--
	(KazA4-A6,A9-A10)	(KyrA1-A3)
Deemed appropriate	+	--
	(KazA6,A9-A10)	(KyrA1-A3)
Alternatives (weddings/funerals)		
Clear/Specific	+	--
	(KazA12-13)	(KyrA4,B10)
Deemed appropriate	+	--
	(KazA12-13)	(KyrA4,B10)
Absolution		
Ramadan	+	--
	(KazA6,A10-11)	(KyrA1-A3)
Weddings/Funerals	+	--
	(KazA12)	(KyrA4,B10)
<p>Notes: The sources used to assign positive or negative scores are indicated in the line below the + or – sign and are in the list of corresponding documents (by country) below. Kaz refers to Kazakhstan and Kyr refers to Kyrgyzstan. For Kyrgyzstan, we used FOR.KG News (<a href="https://for.kg/main-ru.html">https://for.kg/main-ru.html</a>), which includes 24 (<a href="https://24.kg">https://24.kg</a>), akipress (<a href="https://akipress.kg">https://akipress.kg</a>), and kabar news (<a href="https://kabar.kg">https://kabar.kg</a>), as well as the popular independent news outlet <i>Kloop</i> (<a href="https://kloop.kg">https://kloop.kg</a>). For Kazakhstan, we used informburo (<a href="https://informburo.kz">https://informburo.kz</a>), which contains the same articles published in Kazakhstan Today, Kazinform, Tengrinews, Astana Times, and Qazaqtv.com.</p>		

Table A8: Comparing Muftiyat Messaging – Social Distancing		
	Kazakhstan	Kyrgyzstan
Timing	+ (KazB1)	+ (KyrB5)
Consistency		
Short-term	+ (KazB1-B3)	-- (KyrB1-4)
Long-term	+ (KazB4)	+ (KyrB6-11)
Alternatives		
Clear & Specific	+ (KazB1-4)	-- (KyrB6-11)
Deemed appropriate	+ (KazB1-4)	-- (KyrB6-11)
<p>Notes: The sources used to assign positive or negative scores are indicated in the line below the + or – sign and can be found below. Kaz refers to Kazakhstan and Kyr refers to Kyrgyzstan. For Kyrgyzstan, we used FOR.KG News (<a href="https://for.kg/main-ru.html">https://for.kg/main-ru.html</a>), which includes 24 (<a href="https://24.kg">https://24.kg</a>), akipress (<a href="https://akipress.kg">https://akipress.kg</a>), and kabar news (<a href="https://kabar.kg">https://kabar.kg</a>), as well as the popular independent news outlet <i>Kloop</i> (<a href="https://kloop.kg">https://kloop.kg</a>). For Kazakhstan, we used informburo (<a href="https://informburo.kz">https://informburo.kz</a>), which contains the same articles published in Kazakhstan Today, Kazinform, Tengrinews, Astana Times, as well as Qazaqtv.com. Articles that duplicated information were not included.</p>		