



# Crossing religious boundaries: Individual and contextual determinants of who can violate religious norms

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## ARTICLE INFO

### Keywords:

Religion  
Social cognition  
Intergroup relations  
Social development

## ABSTRACT

In pluralistic societies, encounters with individuals, contexts, and norms of other religions can prompt conflict. We test a novel framework for explaining how individuals apply religious norms across individuals and contexts. In Studies 1 and 2, adolescents and adults in India and the United States judged events in which religious norms were violated by protagonists of different religions in different religious contexts. Participants often judged that norm violations were wrong even when the norm religion matched only the protagonist or context religion. Study 3 presented dilemmas that pitted religious norms against non-religious concerns. Participants favored following the religious norm yet accepted the protagonist's right to violate it. In each adult sample, more religious participants more often judged that protagonists were obligated to follow the protagonist's own religious norms. These findings reveal individual and contextual determinants of judgments about religious violations with implications for peaceful coexistence in pluralistic societies.

## 1. Introduction

People from differing religious and secular backgrounds, who follow different norms, coexist within pluralistic societies. But members of one group sometimes violate the norms of another group, risking societal conflict. When the secular Danish newspaper *Jyllands-Posten* published cartoons of the Prophet Muhammad, it violated the Muslim norm against depictions of religious entities (Bilefsky, 2006). The publication was criticized by Muslims and non-Muslims, and motivated the bombing of the Danish embassy in Pakistan (Blake, 2015; Mekhennet & Cowell, 2008). In India, mobs have attacked Muslims for violating the Hindu prohibition against killing cows (Safi, 2016). These religious conflicts stem from a theological and moral conundrum faced by religious as well as secular individuals: When, if ever, are they obligated to follow the norms of a faith to which they do not adhere?

The application of religious norms has an *individual* and a *contextual* dimension, insofar as religious norms serve ends that are both individual (regulating one's relationship to God) and contextual (promoting behavioral uniformity within a community): First, should people abide by the norms prescribed by their *individual* religion? If so, breaking the fast during Ramadan would be wrong for Muslims in all contexts, even if

they are visiting a Hindu home. Second, should people abide by the norms prescribed by the religious *context* (locations or entities associated with a religion)? If so, Hindus who visit a Muslim home might be obligated to fast during Ramadan, even though Hinduism does not prescribe fasting during Ramadan. In today's pluralistic societies, people often encounter such situations that cross religious boundaries (Tripathi, Ghosh, & Kumar, 2014; Verkuyten & Yogeeswaran, 2017). Variations in people's judgments along the contextual and individual dimensions can push inter-faith encounters toward tension. Violent conflicts often ensue when followers of one religion apply their own religious norms to others (Armstrong, 2014; Atran & Ginges, 2012; Safi, 2016).

The present research develops and tests a novel framework for explaining how people apply religious norms. The framework builds on the proposal that people develop and apply religious norms in ways that differ from how they develop and apply other norms (Gieling, Thijs, & Verkuyten, 2010; Killen, Rutland, Abrams, Mulvey, & Hitti, 2013; Nucci & Turiel, 1993; Shweder, Much, Mahapatra, & Park, 1997; Srinivasan, Kaplan, & Dahl, 2019; Turiel, 2015). In four studies, we tested key predictions of our framework—which we describe below—about how people's judgments about religious norm violations incorporate both individual and contextual characteristics. Our studies were conducted

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with youth and adults of varying religious affiliations from two pluralistic countries: India and the United States.<sup>1</sup>

### 1.1. What are religious norms and how are they different from other norms?

From a psychological vantage point, we are concerned with what individuals view as religious norms. Within our framework, a person views a norm as religious when they see the norm as stemming primarily from gods or sources that speak on behalf of gods, such as priests or holy texts—*religious authorities*, for short (Srinivasan et al., 2019). Viewing a norm as primarily stemming from religious authorities implies that the norm would not exist in the absence of those religious authorities and their perceived commands or will.<sup>2</sup> Thus defined, concerns with the will of religious authorities differ from other concerns that support norms (Atran & Ginges, 2012; Cohen, 2009; Dahl & Killen, 2018; Nucci & Turiel, 1993; Shweder et al., 1997; Van Leeuwen, 2014; for alternative views, see Machery, 2018; Fiske & Rai, 2014, and our General Discussion). Here, we will consider how religious concerns differ from what we call *moral*, *prudential*, and *conventional* concerns (Dahl & Kim, 2014; Turiel, 1983, 2015).

We define *moral concerns* to be about others' welfare, rights, fairness, and justice (Dahl & Killen, 2018; Turiel, 2015). Prior work from India and the United States—in addition to many other contexts—shows that religious individuals distinguish religious from moral concerns by adolescence. For example, this body of work shows that religious people do not generally apply the norms of one religion to the followers of another religion (Nucci & Turiel, 1993; Srinivasan et al., 2019). In one study, for instance, 9- to 15-year-old Hindu and Muslim children in India typically judged that eating beef in a restaurant (a Hindu norm violation) was wrong for a Hindu but not for a Muslim (Srinivasan et al., 2019). In contrast, these participants—like those in numerous other studies—thought it was wrong for both Hindus and Muslims to violate the moral norm against unprovoked hitting of another person (for reviews, see Dahl & Killen, 2018; Turiel, 2015).

*Prudential concerns* relate to the agent's own welfare and thus constitute another type of concern that is separate from religious

concerns (Dahl & Waltzer, 2020; Nucci & Turiel, 1993). Prudential concerns support norms that regulate the agent's own safety and health behaviors, for instance prescriptions to exercise regularly or proscriptions against mixing medications.

We also propose that religious norms differ from *secular conventions*, which are rooted in concerns with consensus or non-religious authorities (Dahl & Waltzer, 2020; Lewis, 1969; Turiel, 1983; Weston & Turiel, 1980). Most importantly for the present research, secular conventions tend to be context-specific, such that individuals do not carry them from one context to another. A child who wears a school uniform at school is normally free to wear something else at home; a French person used to greeting others by a kiss on the cheek is advised against doing so when visiting the United States (Lesnes, 2011).<sup>3</sup> By contrast, individuals often carry their religious norms with them into new contexts. A Muslim who moves to a new country, or starts a new job, can still be obliged to fast during Ramadan. The fact that individuals can carry their religious obligations with them across contexts—yet can also acquire new religious obligations when they enter new religious contexts—contributes to the unique conundrums of religious norm violations, as we will discuss next.

### 1.2. The conundrum of how to judge religious norm violations: individual and contextual dimensions

The norms of a religion could be thought of as applying only, and always, to adherents of that religion. For example, most Muslims fast during Ramadan, and seem to accept that Catholics, Hindus, and others do not, and even judge that others *should* follow their respective religious norms (Srinivasan et al., 2019). The holy text of Islam articulates this religious pluralism: "To you your religion, and to me my religion!" (The Qur'an, 109:6).

But people's actual reasoning about religious norms is likely more complicated. Religious people often face pressures to violate their own religious norms, especially when they cross into other religious or secular contexts. Religious norms sometimes put religious individuals at odds with the rest of society, as when religious dress codes conflict with school or sports uniforms (Ahmed, 2018; Ramadan, 2017). In a survey of religious individuals in the United States, only around half of Catholics and Muslims said that they would "take unpopular stands to defend their religious faith," and more than half of Muslims reported experiencing religious discrimination (Institute for Social Policy and Understanding, 2019). Due to such pressures, religious individuals sometimes opt to violate their own religious norms. In the United States, for instance, some Muslim women refrain from wearing head coverings out of fear of discrimination (American Civil Rights Union, 2008; Graham, 2016).

Moreover, people are sometimes expected to follow the norms of other religions. We began this article with examples of Muslim outrage against a secular newspaper that violated the Muslim prohibition against depicting Muhammad, and Hindu outrage against Muslims accused of killing cows (Bilefsky, 2006; Safi, 2016). Upon entering St. Peter's Basilica in Rome—one of the holiest Catholic sites—Catholics and non-Catholics alike are prohibited from wearing shorts. Religious contexts seem especially prone to elicit intergroup conflict when the definition of a religious context is contested or when a majority religious group has the power to define a previously pluralistic context as belonging to one religion, points to which we return in the General Discussion. Religious

<sup>1</sup> In this initial investigation, we did not seek to recruit religious fundamentalists or extremists likely to embrace religious violence. Rather, we chose to survey broader samples of religious and non-religious individuals about everyday events that participants might encounter. As we suggest in the General Discussion, the present framework and findings will provide a foundation for future research on how application of religious norms across religious boundaries shapes violent conflict.

<sup>2</sup> In some cases, people see norms as having both religious and non-religious support: Most religions prohibit killing, but this prohibition also derives support from moral concerns with others' rights and welfare. Hence, the prohibition against killing would not qualify as a religious norm by our definition, insofar as even religious individuals judge that it would be wrong to harm others even if gods had given permission (Nucci & Turiel, 1993; Srinivasan et al., 2019). Though such multifaceted events are important, they will not be the focus on this paper and they do not undermine the basic distinction between religious and non-religious concerns. Indeed, multifaceted norms and moral dilemmas only arise because people have distinct (e.g., moral and religious) concerns to begin with (for further discussion, see e.g., Dahl & Waltzer, 2020; Turiel, 1989). Moreover, as we review here, prior research finds that children and adults across the world apply norms seen to stem primarily from religious concerns very differently from norms seen to stem primarily from moral evaluative concerns, rendering the proposed definition of religious norms useful (Srinivasan et al., 2019). A second implication of our definition is that two people can disagree about how or whether a norm is religious. For a Muslim, Muslim norms about fasting or praying stem from Allah. For an atheist, those norms stem not from Allah—whose existence the atheist denies—but from Muslim authorities on earth, such as the Qur'an or imams. Still, both individuals agree the norms are religious ones. We thank an anonymous reviewer for prompting us to clarify our definition of religious norms.

<sup>3</sup> A second proposed difference between religious norms and secular conventions is that religious individuals will tend to see religious norms as alterable by gods or other religious authorities and secular conventions as alterable by teachers, politicians, or other secular authorities (see e.g., Laupa, 1991; Nucci & Turiel, 1993; Srinivasan et al., 2019; Van Leeuwen, 2014). These differences in alterability, and authorship, of norms have practical consequences: Whereas secular authorities can be queried, challenged, or even overthrown, religious individuals have limited opportunities for engaging in the same ways with gods.

fundamentalism offers more extreme cases of extending the norms of one religion to members of other religions. Fundamentalist teachings often portray people of other religious orientations as wrong, sinful, and evil, and suggest that they should be punished (Altemeyer & Hunsberger, 2004; Armstrong, 2014; Emerson & Hartman, 2006).

Despite the societal importance of religious tolerance, there has been little research on how people apply religious norms across different contexts and individuals. Many studies have examined discrimination, but tolerance of the norms and practices of other groups has received little attention. As noted by Verkuyten and Yogeeswaran (2017), it is “around concrete issues that cultural diversity is put to the test, ways of life collide, and the need for toleration is discussed” (p. 73; see also Yogeeswaran & Dasgupta, 2014). People who hold favorable views of Muslims may still think that a Muslim girl should not use head coverings in non-Muslim spaces. A secular liberal who carries no bias toward Catholics may nevertheless want to eat meat on a Lenten Friday, even when visiting a Catholic friend. The line between harmony and conflict is drawn during these everyday encounters.

### 1.3. A framework for explaining judgments about religious violations: individual and contextual considerations

The root of the conundrums around how to apply religious norms across religious boundaries, we propose, is that religious norms can serve the two separable functions (Armstrong, 2014; Donahue, 1985). One function pertains to the individual’s relationship to God or other religious entities: for a Muslim, abiding the norm of fasting during Ramadan can signal devotion to Allah. Based on this concern, religious individuals would be required to follow their own religious norms across different contexts, e.g., since a Muslim maintains a relationship to Allah when visiting a Hindu home. The second function served by religious norms is to promote uniformity of behaviors within a religious context (Crawford & Pilanski, 2014; Dahl & Waltzer, 2020; Verkuyten & Yogeeswaran, 2017). Uniformity of behavior, for instance when everyone fasts during daytime in Ramadan, may convey respect for the religion associated with that context (e.g., respect for Islam when in a Muslim home or place of worship). Uniformity of behavior may also benefit adherents of a religion; for instance, if everyone is fasting during Ramadan, fasters may be better able to avoid the temptation to eat.

The present research centers on how *individuals apply norms*, not merely on whether they comply with or are familiar with norms (Legros & Cislighi, 2020). People’s application of norms, for instance their judgments about whether some action is wrong or should be punished, shape emotions and actions (Dahl & Killen, 2018; Gray & Wegner, 2011). People can only show moral outrage or moral protest once they have judged that another person’s action was morally wrong. Thus, to understand the psychology underlying conflicts about religious violations, a first key step is to examine how individuals apply religious norms across individuals and contexts.

Table 1 lists our main hypotheses. We tested these hypotheses by presenting participants with hypothetical vignettes in which a protagonist violates, or considers violating, a religious norm. Each hypothesis is phrased in terms of disapproval of the protagonist’s action, which we operationalize as evaluative judgments, for instance about whether the norm violation is okay, is severe, or should be punished (Srinivasan et al., 2019; Turiel, 2015).

We hypothesized that when the religion of the norm matched both the religion of the protagonist and the religion of the context, most people will judge the violation as wrong (e.g., a Muslim protagonist eating during daytime in Ramadan in a Muslim home; H1). Even more interesting, however, was how people would judge actions by protagonists who crossed religious contexts. We hypothesized that many people would judge actions as wrong when the protagonist’s religion matched only the norm religion but not the context religion (e.g., a Muslim protagonist eating during daytime in Ramadan in a Hindu home; H2), or when the norm religion matched only the context religion but

**Table 1**

Hypotheses and examples for each norm-context-protagonist relation.

Norm-Protagonist	Norm-context	
	Match	Mismatch
Match		
Example	Muslim protagonist eating during daytime in Ramadan in Muslim home	Muslim protagonist eating during daytime in Ramadan in Hindu home
Main hypothesis	H1: High disapproval rates	H2: Intermediate disapproval rates
Predictor	H5: Religiosity predicts more disapproval	H5: Religiosity predicts more disapproval
Mismatch		
Example	Hindu protagonist eating during daytime in Ramadan in Muslim home	Hindu protagonist eating during daytime in Ramadan in Hindu home
Main hypothesis	H3: Intermediate disapproval rates	H4: Low disapproval rates

not the protagonist’s religion (e.g., a Hindu protagonist eating during daytime in Ramadan in a Muslim home; H3). To provide a baseline, we also compared disapproval in these three conditions (H1–H3) to disapproval of the protagonist’s action when the norm religion matched neither the context religion nor the protagonist religion (e.g., A Hindu protagonist eating during daytime in Ramadan in a Hindu home), where we expected that almost nobody would deem the protagonist’s action as wrong (H4; Nucci & Turiel, 1993; Srinivasan et al., 2019).

We also expected that more religious individuals would be especially concerned with the protagonist’s adherence to the protagonist’s own religious norms (H5, Dunham, Srinivasan, Dotsch, & Barner, 2014; Srinivasan et al., 2019). For example, we expected that individuals who identify as more religious would be more likely to deem that a Hindu protagonist was obligated to follow Hindu religious norms, regardless of whether the protagonist was in a Hindu or a Muslim context. In contrast, we did not expect religiosity to predict judgments about whether protagonists should follow the norms of *other* religions, for instance whether it was wrong for a Hindu to eat during Ramadan in a Muslim home, since such judgments concern social uniformity rather than the protagonist’s relationship with God.

### 1.4. The present research

Across four studies, we enrolled participants from two large, pluralistic societies (India and the United States) and examined norms and participants with different religious affiliations (Catholic, Hindu, Muslim, and secular). In Study 1, we examined how Hindu and Muslim adolescents (1A) and adults (1B) in India applied Hindu and Muslim norms across individuals and contexts. Questions of religious tolerance are pressing on the Indian subcontinent, which has long been mired in religious conflict (Khan, 2008; for a discussion, see Tripathi et al., 2014). In recent years, Hindus have been targeted for violating Muslim norms, and Muslims have been targeted for violating Hindu norms (Safi, 2016).

Our focus on adolescents in Study 1A was guided by prior research suggesting that the transition from adolescence to adulthood may be a key period in the development of reasoning about religious norms. During this time, youth take on new religious responsibilities (King & Boyatzis, 2015) and develop the socio-cognitive tools needed to coordinate competing considerations about norms and group identities (Dahl & Killen, 2018; Somerville, 2013). Some authors have even suggested that adolescence is a sensitive period in sociocultural processing (Blakemore & Mills, 2014). We interviewed adolescents at a school in Gujarat, a province with a history of Hindu-Muslim tension (Varadarajan, 2002). The challenges of recruiting and interviewing Hindu and Muslim adolescents in person meant that we could only collect enough data to test within-subjects effects with satisfactory power (H1–H4).

To attain sufficient power to test hypotheses about individual differences in religiosity (H5), we recruited larger samples of adults in Studies 1B, 2, and 3 ( $N$ s: 122–309). We also wanted to study adults because adults hold more societal power than adolescents and therefore play a decisive role in shaping conflicts around religious tolerance. Although we did not predict major differences between adolescents in Study 1A and adults in Study 1B, we include comparisons of these two samples at the end of the Study 1B Discussion. As we note in the General Discussion, further research on the development of judgments about religious norm violations from childhood to adulthood is needed.

To examine the generality of the Study 1 findings, Study 2 interviewed religious and non-religious adults in the United States about Catholic and Muslim norms. Although the United States purports to be a place of religious freedom, tolerance and pluralistic coexistence have posed challenges since the country's founding (Corrigan & Hudson, 2018). The country has been majority Christian but also includes many other religions, including Hinduism, Judaism, Islam, and indigenous religions. Members of religious minorities, including Catholics, have been discriminated against throughout the country's history. The rate of both government restrictions on religious practices and social hostilities have increased in recent decades (Pew Research Center, 2014). Following the September 11, 2001 terrorist attacks, Muslims have been especially likely to experience discrimination (Pew Research Center, 2017; Pfaff, Crabtree, Kern, & Holbein, 2021).

Finally, Study 3 extended the present framework by examining dilemmas that pitted religious norms against non-religious concerns with the protagonist's welfare, others' welfare, and institutional rules in a non-religious context. This examined a possible boundary condition for our hypothesis that participants (particularly more religious participants; H5) would commonly disapprove when a protagonist violated a norm from their own religion even in a context that was not associated with the protagonist's religion (H2). Study 3 thus examined the kind of dilemmas that cause both intrapersonal and interpersonal conflicts as religious individuals strive to navigate secular spaces in pluralistic societies (Armstrong, 2014; Forst, 2017; Gieling et al., 2010).

## 2. Study 1A: Hindu and Muslim adolescents in India

### 2.1. Method

#### 2.1.1. Participants

Our adolescent sample consisted of 40 participants (21 female, 19 male;  $M_{\text{age}} = 14.1$  years,  $SD_{\text{age}} = 0.5$  years, range: 13.2–15.6 years), students at an English language, K-12 school for children in Vadodara, in Gujarat Province, India. Half were Hindu and half were Muslim. We based methods and effect size estimates on prior research (Srinivasan et al., 2019) and used simulations to determine power (see Abraham & Russell, 2008). Simulations indicated that a sample size of 20 per religious group yielded a power above 0.90 for detecting the hypothesized differences between the experimental conditions (see Supplementary Online Materials [SOM]). Questionnaire data (see below) indicated that adolescents in both groups tended to report being "Somewhat religious" (3) and "Very religious" (4, Muslims:  $M = 3.50$ , Hindus:  $M = 2.95$ ). On average, both groups of adolescents expressed generally positive attitudes toward both Hindus and Muslims (see SOM).

#### 2.1.2. Materials

We asked participants about norms associated with Hinduism and Islam: two Hindu norms (not eating meat during the Hindu holiday of Shivaratri, cremating the deceased) and two Muslim norms (not drawing a picture of the Prophet Muhammad, fasting during the daytime in the month of Ramadan). We chose these norms based on prior research with similar populations (Srinivasan et al., 2019) and conversations with teachers and research assistants who were familiar with local religious practices. For each norm, we created four situations (Table 1) in which a protagonist violated the norm by crossing the norm-context relation

(match, mismatch) and norm-protagonist relation (match, mismatch). Norm-context match refers to events in which the religion of the norm matches the religion of the context (e.g., Hindu norm violated in a Hindu home). Norm-protagonist match refers to events in which the religion of the norm matches the religion of the protagonist (e.g., Hindu norm violated by Hindu protagonist). For a full list of the stories used, see SOM.

#### 2.1.3. Procedures

All participants were interviewed in person about all four norms. Half were interviewed about Hindu norms first and the other half were interviewed about Muslim norms first. Interviews were conducted in English by two of the authors and a trained research assistant. Participants were presented with all four variants of each norm (Table 1): norm-protagonist match and norm-context match, norm-protagonist match and norm-context mismatch, norm-protagonist mismatch and norm-context mismatch, and norm-protagonist mismatch and norm-context match. For each variant, participants were asked the following: "Do you think what [protagonist] did was okay?" (*evaluative judgment*), "Why was it (not) okay?" (*justification*), "How bad is what [protagonist] did? Was it not bad, a little bad, very bad, or extremely bad?" (*severity rating*), and "Do you think [protagonist] should be punished or not?" (*punishment decision*). These questions were derived from prior research on judgments about violations of religious and other norms (Nucci & Turiel, 1993; Srinivasan et al., 2019; Turiel, 2015).

After the interview, participants responded to a survey about group relations and identity (see SOM). They were asked how they felt about different groups of people, including men, women, rich people, poor people, Hindus, and Muslims on a 5-point scale ranging from "Dislike very much" to "Like very much." They were then asked how important their school, religion, gender, and language were to them on a 5-point scale ranging from "Very important" to "Not at all important." Next, participants indicated how many of their five closest friends were Hindu, Muslim, or other, and how much time they spent with Hindu and Muslim friends on a 4-point scale. Participants were also asked to indicate their own religious affiliation and to state how religious they were (4-point scale from "Very religious" to "Not at all religious").

#### 2.1.4. Coding and data reduction

Participants' responses (permissibility, severity, punishments) were coded by two trained coders. Coders double-coded 45% of the data to assess inter-rater agreement (Cohen's  $\kappa = 0.98$ ). A survey of justifications indicated that participants predominantly (>70%) referenced religious affiliation (of the protagonist, context, or norm) given by the scenario description. Table S6 in the SOM contains representative examples of justifications.

#### 2.1.5. Data analysis

The main dependent variables were dichotomous. Data were analyzed using Generalized Linear Mixed Models (GLMMs) with logistic link function and binomial error distribution (Hox, 2010). Models included fixed effects of norm-context relation (match vs. mismatch), norm-protagonist relation (match vs. mismatch), and participant religion. Unsurprisingly, given the limited sample size, preliminary analyses revealed no main or interaction effects of participant religiosity,  $p$ s > 0.05. Hypotheses were tested using likelihood ratio tests (D) and Wald tests ( $\chi^2$ ). Due to space constraints, we report only the main analyses below. The SOM contains additional statistical details and additional results.

## 2.2. Results

### 2.2.1. Evaluative judgments

Participants' evaluative judgments were highly sensitive to relations among norms, contexts, and protagonists, as evidenced by a significant interaction between norm-context relation and norm-protagonist



relation,  $D(1) = 60.01, p < .001$ .

As shown in Fig. 1, participants almost never (3%) said the protagonist's action was wrong when the norm religion matched neither the protagonist religion nor the context religion (H4, e.g., a Hindu eating during the daytime in Ramadan in a Hindu home). By comparison, participants were far more likely to say the action was wrong when the norm religion matched only the protagonist religion (46%, H2; a Muslim eating during the daytime in Ramadan in a Hindu home), only the context religion (65%, H3; a Hindu eating during the daytime in Ramadan in a Muslim home), or both the protagonist and context religions (64%, H1; a Muslim eating during the daytime in Ramadan in a Muslim home), Wald tests:  $\chi^2s(1) \geq 52.0, ps < 0.001$ . In addition, participants were more likely to say that the protagonist's action was wrong when the norm religion matched the context religion (regardless of protagonist's religion; e.g., a Hindu or Muslim eating during the daytime in Ramadan in a Muslim home) than when the norm religion only matched the protagonist religion but not the context religion (e.g., a Muslim eating during the daytime in Ramadan in a Hindu home),  $\chi^2s(1) \geq 11.0, ps < 0.001$ .

The same interaction between norm-context relation and norm-protagonist relation was significant when we analyzed the data separately for participants' own religion,  $D(1) = 60.01, p < .001$ , and for the other religion,  $D(1) = 23.27, p < .001$ . Thus, as hypothesized, participants almost never extended the norms of one religion to a member of a different religion who was acting in their own context. However, when the religion of the norm matched the religion of the protagonist or the context, participants became much more likely to deem the act wrong.

There was also a main effect of participant religion: Muslim adolescents were overall more likely to say that the protagonist's action was wrong (52%) than were Hindu adolescents (38%),  $D(1) = 8.61, p = .003$ . While Muslim participants were more likely to say the act was wrong for both Hindu and Muslim norms, the effect was stronger for Muslim norms (21% difference, vs. 8% difference for Hindu norms), interaction effect:  $D(1) = 4.60, p = .03$ . Still, Muslim adolescents almost never said the protagonist's action was wrong (5%) when the protagonist's religion matched neither the context nor the norm religion.

## 2.2.2. Punishment decisions

Punishment decisions again showed a similar pattern to judgments, except that decisions to punish were not as frequent overall. Participants' decisions about whether the protagonist should be punished depended significantly on the interaction between norm-context relation and protagonist-norm relation,  $D(1) = 31.05, p < .001$ . Participants almost never (1% of judgments) said the protagonist should be punished when the protagonist's religion matched neither the norm religion nor the context religion (H4, e.g., a Hindu eating during the daytime in Ramadan in a Hindu home), which was significantly different from the other three conditions,  $\chi^2s(1) \geq 23.00, ps < 0.001$ . That is, participants were significantly more likely to recommend punishment when the norm religion matched only the protagonist religion (27%, H2; e.g., a Muslim eating during Ramadan in a Hindu home), when the norm religion matched only the context religion (30%, H3; e.g., a Hindu eating during Ramadan in a Muslim home), and when the norm religion matched both the context and protagonist religion (35%, H1; a Muslim

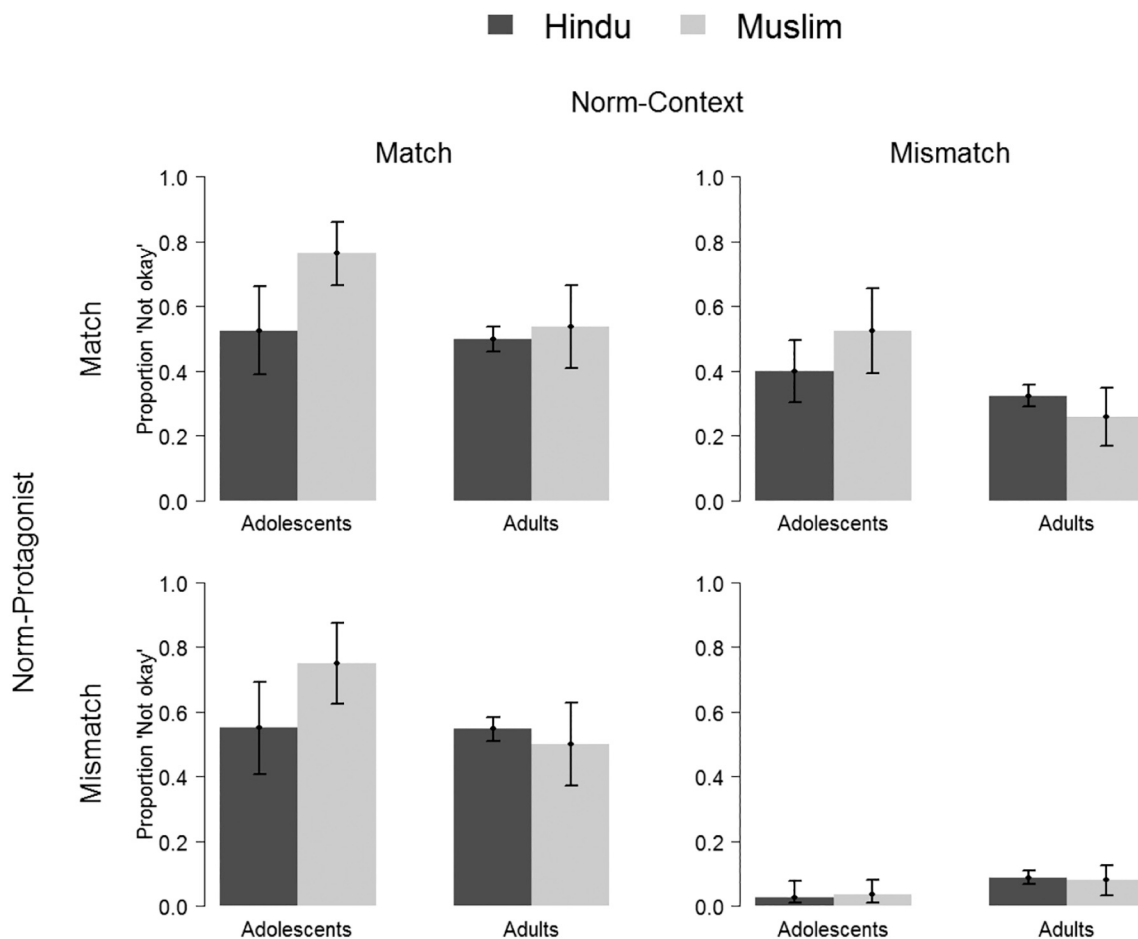


Fig. 1. Participant judgments about protagonist actions for Studies 1A and 1B.

Note. Bars show the proportion of “not okay” judgments for each combination of norm-context-protagonist relations, separately for Hindu and Muslim adolescents (Study 1A) and adults (Study 1B). Error bars show mean  $\pm$  1 standard error.

eating during Ramadan in a Muslim home). There were no other significant differences,  $\chi^2(1) \leq 3.30$ ,  $ps \geq 0.07$ . Further, there was no significant effect of participant religion,  $D(1) = 1.33$ ,  $p = .25$ , on judgments about punishment.

### 3. Study 1B: Hindu and Muslim adults in India

Before discussing Study 1A, we report Study 1B, which presented the same vignettes and questions to a larger sample of adult Hindus and Muslims in India through an online survey. The larger sample allowed us to test hypotheses about individual differences in religiosity (H5).

#### 3.1. Method

##### 3.1.1. Participants

There were 309 participants (86 female, 223 male,  $M_{\text{age}} = 30.9$  years,  $SD_{\text{age}} = 6.7$ , range: 22.0–69.0 years). On average, participants reported being between “somewhat religious” (rating of 3) and “very religious” (rating of 4), Hindus:  $M = 3.13$ , Muslims:  $M = 3.36$ . Both groups expressed positive attitudes toward both Hindus and Muslims (see SOM).

The sample was recruited via Amazon Mechanical Turk (mTurk), restricted to IP addresses in India, and included 281 Hindu participants and 28 Muslim participants. The adult sample was larger than the adolescent sample because we sought to recruit at least 20 Muslim adult participants, as in Study 1B (see above for discussion of power analyses). Only about 14% of India’s population is Muslim, meaning that we had to recruit many more Hindu mTurk participants to get 20 Muslim participants. In addition, the larger sample size enabled us to test hypotheses about individual differences in religiosity. Our recruitment of more male than female participants is consistent with prior research using mTurk in India (Difallah, Filatova, & Ipeirotis, 2018), possibly because males are more likely to have internet access (Singh, 2016).

An additional 124 participants completed the survey, but their data were not included because they affiliated with religions other than Hinduism or Islam ( $N = 47$ ), responded that they were not fluent in English ( $N = 54$ , see below), took less than 400 s or more than 5000 s to complete the survey ( $N = 13$ ), or missed more than 10% of the 88 comprehension questions ( $N = 10$ ).

##### 3.1.2. Materials and procedures

Before completing the survey (administered via Qualtrics), adults were asked to indicate their English proficiency in reading, writing, and speaking from 1 (poor) to 5 (fluent). Participants who responded less than 4 for any measure were excluded. The scenario descriptions, questions, and design presented were the same as those presented in Study 1A. As in Study 1A, participants were also surveyed about their religiosity and intergroup relationships (see SOM).

##### 3.1.3. Data coding, reduction, and analysis

Coding of responses was as in Study 1A and data were again analyzed using GLMMs, which can accommodate the different numbers of Hindu and Muslim participants (Hox, 2010). In order to test our hypothesis about individual differences in religiosity, we calculated a composite measure of religiosity. The two indices of religiosity (importance of religion, religiosity) were standardized and combined into a composite measure using the first component from a principal component analysis (variance accounted for by first component: 72%). To check whether judgments about norm violations were simply reflective of general attitudes toward the religious group to which the norm belonged, we also combined responses about liking, number of friends, and time spent with the group into composite indices for attitudes toward Hindus (first component: 45% of variance) and Muslims (52%). However, preliminary analyses revealed no significant effects of attitudes toward Hindus and Muslims in predicting evaluations about violations of Hindu and Muslim norms respectively, hence this predictor was not included in

the analyses reported below.

#### 3.2. Results

##### 3.2.1. Evaluative judgments

Adults’ evaluative judgments were remarkably similar to adolescents’ judgments from Study 1A. Again, there was a significant interaction between norm-context relation and norm-protagonist relation,  $D(1) = 188.37$ ,  $p < .001$ . As shown in Fig. 1, participants rarely (9% of cases) said the protagonist’s action was wrong when the norm religion matched neither the protagonist religion nor the context religion (H4, e.g., a Hindu eating during the daytime in Ramadan in a Hindu home). Participants were far more likely to say the action was wrong when the norm religion matched only the protagonist religion (32%, H2; e.g., a Muslim eating during Ramadan in a Hindu home), only the context religion (54%, H3; e.g., a Hindu eating during Ramadan in a Muslim home), or both (50%, H1; e.g., a Muslim eating during Ramadan in a Muslim home). All cells differed significantly,  $\chi^2(1) > 5.50$ ,  $ps < 0.019$ .

The same interaction between norm-context relation and norm-protagonist relation was significant when we analyzed the data separately for participants’ own religion,  $D(1) = 52.76$ ,  $p < .001$ , and for the other religion,  $D(1) = 41.82$ ,  $p < .001$ . There was no significant effect of participant religion,  $D(1) = 0.19$ ,  $p = .66$ . In short, like adolescents, adults commonly applied religious norms when the norm religion matched either the protagonist religion, the context religion, or both.

##### 3.2.2. Punishment decisions

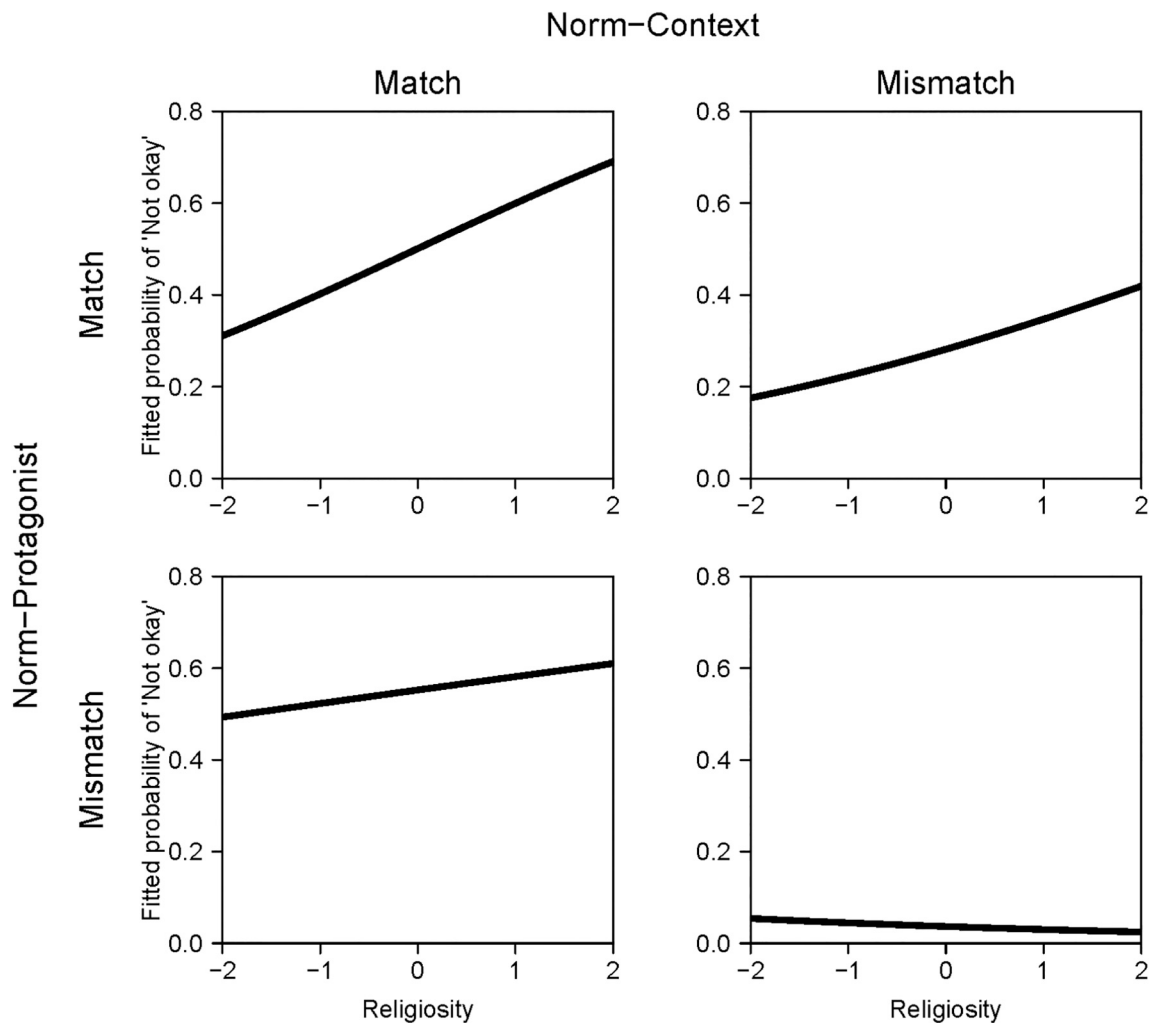
Punishment decisions showed the same pattern, except that decisions to punish were less frequent. For decisions that the protagonist should be punished, there was a significant interaction between norm-context relation and norm-protagonist relation,  $D(1) = 91.12$ ,  $p < .001$ . Only 7% of the time did participants say the protagonist should be punished when the norm religion matched neither the context religion nor the protagonist religion (H4). Participants were significantly more likely to say that protagonists should be punished when the norm religion matched only the protagonist religion (21%, H2),  $\chi^2(1) = 131.9$ ,  $p < .001$ , and recommendations to punish were even higher when the norm religion matched only the context religion (27%, H3) or both protagonist and context religions (28%, H1),  $\chi^2(1) \geq 24.4$ ,  $p < .001$ . The latter two conditions did not differ significantly,  $\chi^2(1) = 0.41$ ,  $p = .52$ . There was no significant effect of participant religion,  $D(1) = 0.05$ ,  $p = .82$ .

##### 3.2.3. Religiosity as a predictor of judgments

We hypothesized that composite religiosity would predict negative judgments in norm-protagonist match situations (H5, e.g., when a Muslim eats during the daytime in Ramadan in a Hindu or Muslim home; Table 1), but not in norm-protagonist mismatch situations (e.g., when a Hindu eats during daytime in Ramadan in a Hindu or Muslim house). To test this hypothesis, we fitted models predicting adult participants’ okay/not okay judgments from the interaction between composite religiosity score and norm-protagonist relation, controlling for participant religion, the interaction between context-norm relation and protagonist-norm relation, and composite attitude toward the group whose norm was being violated.

As predicted, when norm and protagonist religion matched (e.g., a Muslim eating during the daytime in Ramadan), more religious participants were more likely to say that the protagonist’s action was wrong (H5, Fig. 2). This pattern was reflected in a significant interaction between norm-protagonist relation and religiosity,  $D(1) = 18.68$ ,  $p < .001$ . The interaction between norm-context relation and norm-protagonist relation remained significant,  $D(1) = 182.05$ ,  $p < .001$ , and there was no significant effect of group attitude,  $D(1) = 0.99$ ,  $p = .32$ , or participant religion,  $D(1) = 0.70$ ,  $p = .40$ .

Critically, the interaction between religiosity and norm-protagonist relation was significant when we ran separate analyses for



**Fig. 2.** Study 1B: Judgments varied as a function of religiosity.

*Note.* Lines show predicted probabilities of saying action was wrong as a function of religiosity. The horizontal axis indicates standardized composite scores. Predictions were derived from models fitted separately for each cell. The effect of religiosity was significant for both norm-protagonist match situations,  $p < 0.001$ , but neither of the norm-protagonist mismatch situations,  $p > 0.16$ .

participants' own religious norms (e.g., Hindu norms for Hindu participants) and the other religion's norms,  $Ds(1) > 15.75$ ,  $p < 0.001$ . That is, more religious participants were more likely to say the protagonist was obligated to follow the norms of the protagonist's own religion, even when the protagonist's religion differed from the participant's religion. Thus, the composite measure of religiosity captured variance in general properties of how people reason about religious norms, even when they themselves do not abide by those norms.

### 3.2.4. Comparing evaluative judgments in Study 1A and Study 1B

We also wanted to compare the rates of "not okay" judgments between the adolescent sample of Study 1A and the adult sample of Study 1B. GLMMs included participant religion, study (1A vs. 1B), norm-context relation, norm-protagonist relation, and a three-way interaction among the latter three variables. These analyses detected a significant interaction involving study (1A vs. 1B), norm-context relation, norm-protagonist relation,  $D(1) = 9.29$ ,  $p = .002$ . The effect of participant religion was not significant,  $D(1) = 0.70$ ,  $p = .40$ . To further explore the three-way interaction, we fitted separate models for each combination of norm-context relation and norm-protagonist relation to test the differences between the two studies. When the norm religion matched neither protagonist religion nor context religion, adults were significantly more likely to judge the act as wrong (9%) than were adolescents

(3%),  $D(1) = 4.37$ ,  $p = .037$ . By contrast, when the norm religion matched the protagonist religion but not the context religion, adolescents were significantly more likely to judge the act as wrong (65%) than were adults (54%),  $D(1) = 8.35$ ,  $p = .003$ . The difference between adolescents and adults were not significant for the two other conditions,  $Ds(1) < 3.37$ ,  $ps > 0.060$ .

### 3.3. Study 1A and 1B Discussion

As hypothesized, adolescents and adults attended to both individual and contextual considerations when they applied religious norms. Participants almost never thought it was wrong for a protagonist in their own context to violate the norms of another religion (H4, e.g., a Hindu eating at home during Ramadan). Strikingly, judgments changed dramatically when the religion of the norm matched the religion of the protagonist (H2), the context (H3), or both (H1). In these situations, 30–60% of participants said the violation was wrong and, in many cases, "very/extremely wrong" or punishable. (These patterns were evident for both adolescents [Study 1A] and adults [Study 1B], although adults were slightly more likely than adolescents to judge the protagonist's act as wrong when the norm religion matched neither protagonist nor context religion, while the opposite was true when the norm religion matched the protagonist religion but not the context religion.) Thus,

when individuals cross religious boundaries, they are often subject to the norms of other religions while remaining subject to the norms of their own religion. In doing so, they risk evoking tensions and even calls for punishment. This finding points to a potential source of religious conflict in a pluralistic society: Even though people do not generally apply their own religious norms to members of other religions (H4), many may do so if members of another religion enter their religious spaces.

Our adult sample (Study 1B) demonstrated individual differences in how religious norms are applied across individuals and contexts. Adults who expressed higher levels of religiosity were more likely to say it was wrong for a protagonist to violate the norms of the protagonist's own religion, regardless of context (H5). For example, highly religious participants tended to say that Muslims should refrain from eating during Ramadan even when visiting a Hindu home. Deeply religious individuals appear to endorse religious norms intrinsically, even if these norms are not enforced in the social context (Donahue, 1985). If you believe that God requires fasting, and you care about your relationship to God, it may not matter whether people around you are fasting. Remarkably, more religious participants were more likely to say that violations of religious norms were wrong for a member of that religion, even for religious norms participants did not follow. That is, more religious Hindus were more likely to judge it wrong for a Muslim to eat during daytime in Ramadan. Thus, embracing one's own religion need not imply disrespect for the practices of other religions.

In Study 1A, but not in Study 1B, we found that Muslim participants were significantly more likely than Hindu participants to say the protagonist's action was wrong, especially for violations of Muslim norms. Although this finding is consistent with prior work (Srinivasan et al., 2019), it should be interpreted with caution since it was not replicated in Study 1B. Since we did not design the study to examine such Hindu-Muslim differences, our study did not have enough participants—especially Muslim participants in Study 1B—to yield adequate power for such comparisons.

Study 2 sought to assess the generalizability of the Study 1 findings. We recruited participants from two public research universities in the United States, which—like India—is a large, pluralistic democracy grappling with co-existence across religious boundaries. Compared to our Indian samples, we expected the U.S. sample to have a wider range of religious affiliations and also have more non-religious participants. To understand how religious and non-religious individuals coexist within the same society, we need to understand how non-religious individuals reason about religious norms: Do non-religious individuals respect the obligations of religious individuals to follow religious norms, even outside the contexts of that religion (H1–H2)? And do non-religious participants judge that individuals are sometimes obligated to follow the norms of a religion to which those individuals do not adhere (H3)? We expected that responses of non-religious participants would show the same patterns as religious participants, such that their responses would align with H1–H4. We also expected that less religious participants would be overall less likely to judge that it would be wrong to violate religious norms, especially when the protagonist religion matched the norm religion (H5).

Study 2 used Catholic norms instead of Hindu norms because we expected our U.S. sample to be more familiar with Catholicism than Hinduism. Using norms from a different religion allowed us to further examine the generalizability of the hypothesized patterns from Study 1. We included Muslim norms to make Study 2 findings more readily comparable with Study 1 findings, on the assumption that Muslim norms would also be relatively familiar to our U.S. sample.

## 4. Study 2: Judgments about Catholic and Muslim norms in American adults

### 4.1. Method

#### 4.1.1. Participants

Participants ( $N = 209$ , 74% female, 24% male,  $M_{\text{age}} = 20.8$  years,  $SD_{\text{age}} = 2.4$  years, range: 18.0–39.0 years) were recruited from two large public universities in the Western United States. Power analyses based on effect sizes from Study 1B indicated that a sample of 200 would yield a power of at least 90% for detecting the hypothesized effects involving norm-context relations, norm-protagonist relations, and religiosity. An additional four participants participated, but their data were removed because they incorrectly answered more than 10% of comprehension checks ( $N = 1$ ) or failed to complete the survey ( $N = 3$ ). For religious affiliation, 16% indicated Catholic, 13% Christian (other), 5% Buddhist, 15% other religions, and 50% non-religious. Participants who indicated a religious affiliation said they were more religious ( $M = 1.54$ , between “Not very religious” [1] and “Somewhat religious” [2]) than those who did not indicate a religious affiliation ( $M = 0.21$ ),  $t(207)$ ,  $p < .001$ . Even the religious participants in Study 2, however, expressed lower average religiosity than Hindus ( $M = 3.13$ ) or Muslims ( $M = 3.36$ ) in Study 1B. On average, participants expressed moderately positive attitudes toward both Catholics and Muslims, with an average liking rating of Muslims ( $M = 3.54$ ) and Catholics ( $M = 3.47$ ) between “Neither like nor dislike” (3) and “Like a little” (4).

#### 4.1.2. Materials and procedures

Procedures and materials were as in Study 1B, except that participants were interviewed about two Catholic norms (Saying Grace before a meal, avoiding meat on Fridays during Lent) and two Muslim norms (doing the noon prayer, fasting during Ramadan). Participants in pilot interviews indicated that these four norms were generally similar in familiarity and violation severity. Accordingly, participants were asked about their attitudes toward and experiences with Catholics and Muslims.

Coding and data analyses were as in Study 1B. The two indices of religiosity (importance of religion, religiosity) were similarly standardized and combined into a composite measure using principal component analysis (variance accounted for by first component: 91%). In addition, we calculated composite measures of attitudes toward Catholics (first component: 58% of variance) and Muslims (first component: 59% of variance). Again, there were no significant effects of attitude toward Catholics or Muslims,  $ps > 0.05$ , so these predictors were not included in the models reported below,

### 4.2. Results

#### 4.2.1. Evaluative judgments

As in Studies 1A and 1B, there was a significant interaction between norm-context relation and norm-protagonist relation,  $D(1) = 32.47$ ,  $p < .001$  (Fig. 3). Participants rarely (3% of cases) said the protagonist's action was wrong when the norm religion matched neither the protagonist religion nor the context religion (H4, e.g., a Muslim eating meat on a Lenten Friday in a Muslim home). Participants were far more likely to say the action was wrong when the norm religion matched only the protagonist religion (22%, H2; e.g., a Catholic eating meat on a Lenten Friday in a Muslim home), only the context religion (18%, H3; e.g., a Muslim eating meat on a Lenten Friday in a Catholic home), or both (34%, H1; e.g., a Catholic eating meat on a Lenten Friday in a Catholic home). All cells differed significantly,  $\chi^2s(1) > 5.50$ ,  $ps < 0.017$ . H1–H4 were also supported when models were fitted separately for prayer norms and fasting norms, and separately for Catholic norms and Muslim norms,  $\chi^2s(1) > 10.47$ ,  $ps < 0.002$ .

The same interaction between norm-context relation and norm-protagonist relation was significant when we analyzed the data



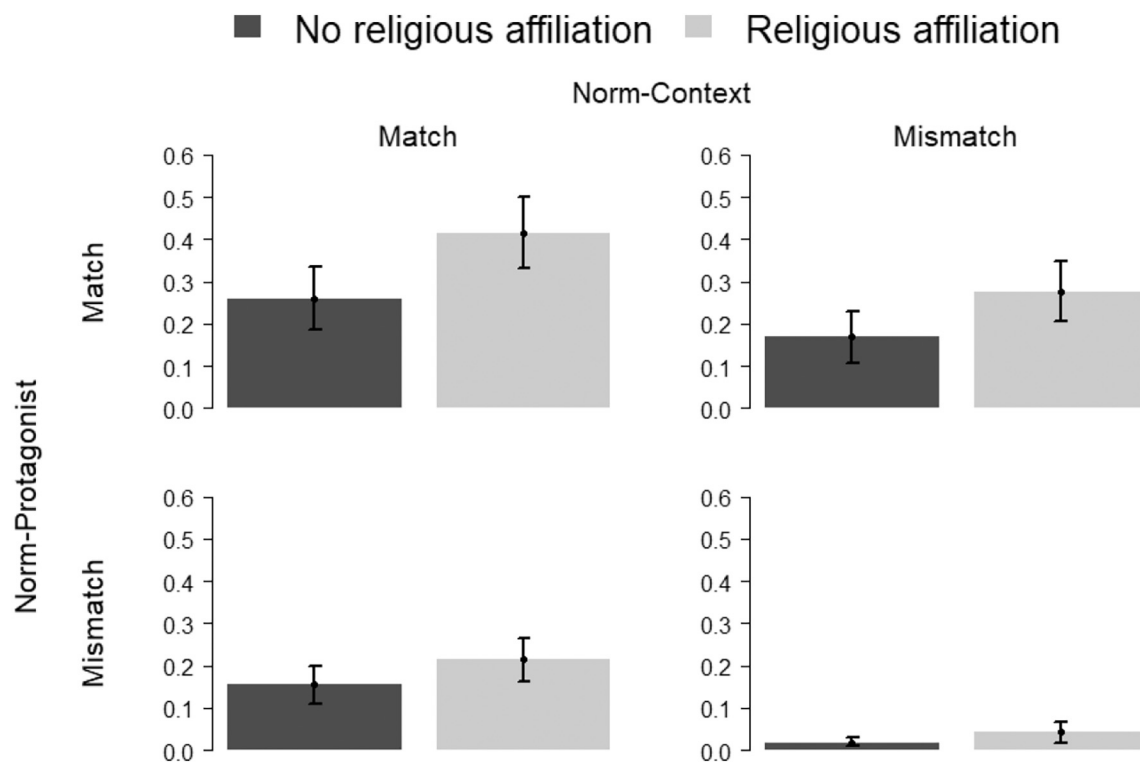


Fig. 3. Participant judgments about protagonist actions for Study 2.

Note. Bars show the proportion of “not okay” judgments for each combination of norm-context-protagonist relations, separately for participants with and without a stated religious affiliation. Error bars show mean  $\pm$  1 standard error.

separately for participants with a religious affiliation,  $D(1) = 13.33$ ,  $p < .001$ , and those without a religious affiliation,  $D(1) = 20.58$ ,  $p < .001$ . Still, there was an overall effect of religious affiliation: participants who expressed a religious affiliation were overall more likely to say that the protagonist’s action was wrong (24%) than participants who expressed no religious affiliation (15%),  $D(1) = 8.98$ ,  $p = .002$ .

#### 4.2.2. Punishment decisions

Although decisions that the protagonist should be punished showed the same pattern, they were rare overall (3%). The interaction between norm-protagonist match and norm-context match was not significant,  $D(1) = 0.06$ ,  $p = .80$ . Overall, participants were more likely to say the protagonist should be punished when the protagonist religion and the norm religion matched (4.9%, vs. 2.0%),  $D(1) = 32.22$ ,  $p < .001$ , and when the context religion and the norm religion matched (4.4%, vs. 2.5%),  $D(1) = 14.57$ ,  $p < .001$ . There was no significant effect of whether the participant had a religious affiliation,  $D(1) = 0.30$ ,  $p = .59$ .

#### 4.2.3. Relations between religiosity and evaluative judgments

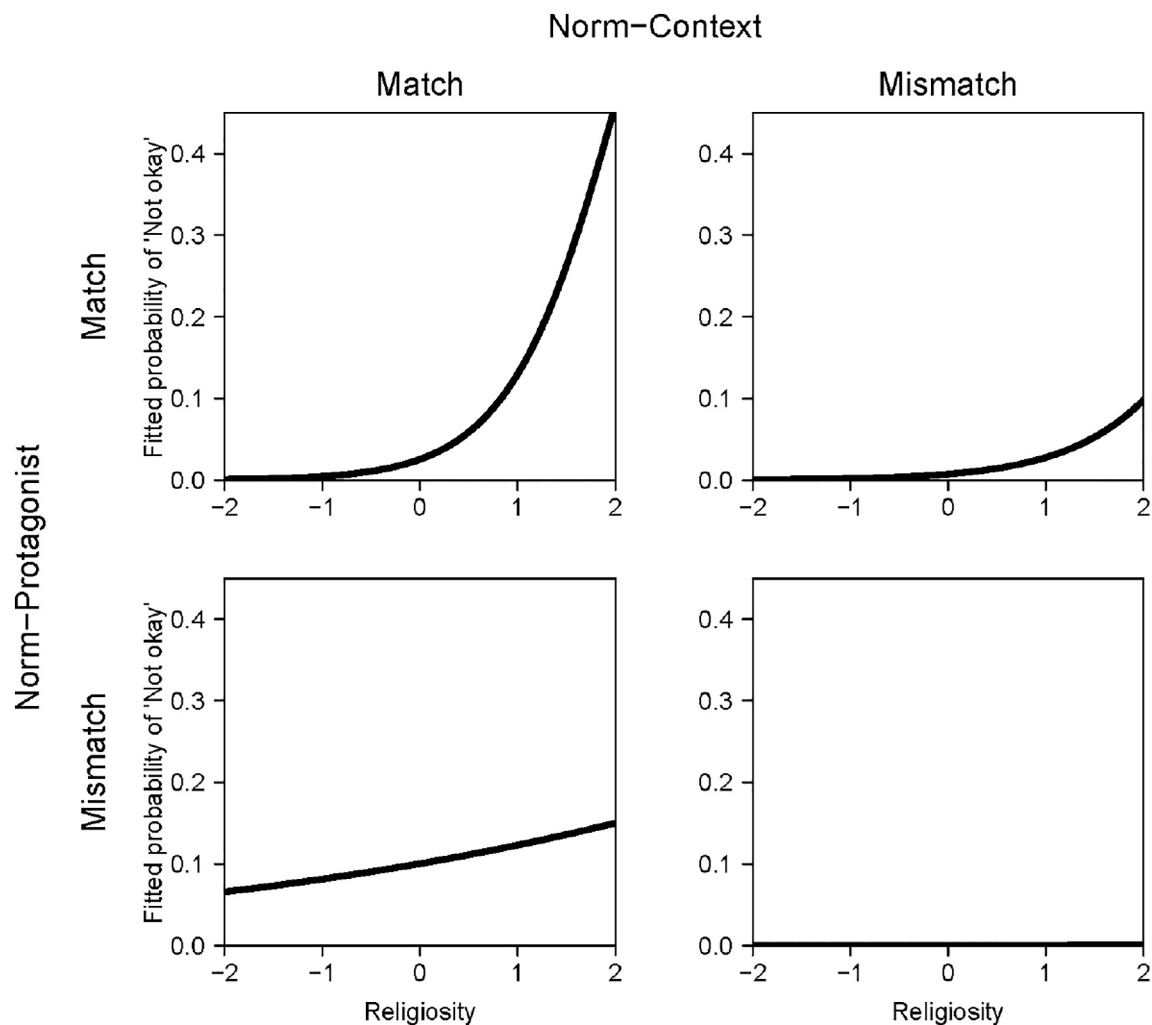
As predicted, when norm and protagonist religion matched (e.g., a Catholic eating meat on a Lenten Friday), more religious participants were more likely to say that the protagonist’s action was wrong (H5, Fig. 4). This pattern was reflected in a significant interaction between norm-protagonist relation and religiosity,  $D(1) = 8.19$ ,  $p = .004$ . The analyses controlled for the interaction between the norm-context and norm-protagonist relation,  $D(1) = 31.13$ ,  $p < .001$ , and composite attitude toward the group whose norm was violated,  $D(1) = 0.23$ ,  $p = .63$ . The interaction between norm-protagonist-relation and religiosity was also significant when analyzing data separately for participants with a religious affiliation,  $D(1) = 9.95$ ,  $p = .002$ , and participants with a religious affiliation other than Catholicism or Islam,  $D(1) = 4.28$ ,  $p = .038$ . Thus, as in Study 1B, more religious participants were more likely to say that the protagonist should follow the norms of the protagonist’s own religion, even when the participants themselves affiliated with a

different religion.

#### 4.3. Study 2 Discussion

Using an American sample, and a new set of Catholic and Muslim norms, Study 2 extended the findings of Study 1 and supported our primary hypotheses (H1-H5, Table 1). Participants rarely judged the protagonist’s action as wrong when the norm religion matched neither the protagonist religion nor the context religion (H4, e.g., a Muslim eating meat on a Lenten Friday in a Muslim home). In contrast, they were more likely to judge the protagonist’s action as wrong when the norm religion matched only the protagonist religion (H2, e.g., a Catholic eating meat on a Lenten Friday in a Muslim home) or only the context religion (H3, e.g., a Muslim eating meat on a Lenten Friday in a Catholic home), and were most likely to do so when the norm religion matched both (H1: e.g., a Catholic eating meat on a Lenten Friday in a Catholic home). Strikingly, this pattern held true even for participants without a religious affiliation or with a religious affiliation other than Catholic or Muslim. The general pattern of findings was similar for judgments about punishment and severity, although participants in Study 2 rarely said the protagonist should be punished.

Replicating the findings from Study 1B, Study 2 found a significant interaction between participants’ religiosity and their judgments when the protagonist religion matched the norm religion (H5). Specifically, more religious participants were more likely to say that it was wrong for the protagonist to violate the protagonist’s own religious norms, regardless of the context in which the action took place. This was again true even when the protagonist’s religion (Catholic or Muslim) differed from the participant’s own religion. Thus, a more religious Catholic was more likely to say that a Muslim should follow Muslim norms across contexts. The fact that we observed a broadly similar pattern of results across Studies 1 and 2 suggests that the hypothesized effect of individual and contextual characteristics in the application of religious norms is not restricted to a limited set of religious norms or to participants from a



**Fig. 4.** Study 2: Judgments varied as a function of religiosity.

*Note.* Lines show predicted probability of saying the action was wrong as a function of composite religiosity, controlling for whether the participant had a religious affiliation. The horizontal axis indicates standardized composite scores. Predictions were derived from models fitted separately for each cell. Religiosity score was a significant predictor of judgments for both norm-protagonist match situations,  $p < 0.003$ , but for neither norm-protagonist mismatch situations,  $p > 0.18$ .

narrow set of religious backgrounds.

Still, U.S. participants in Study 2 were less likely to judge the religious norm violations as wrong, and to say that the protagonist should be punished, than the Indian adults in Study 1B. One possible explanation is that the participants of Study 2—even those who stated a religious affiliation—self-reported lower levels of religiosity than the Hindu and Muslim participants in Study 1B. To further examine the role of religiosity in judgments about religious norm violations, it will be important to study populations with higher levels of religiosity in other regions, such as the Southern United States (Corrigan & Hudson, 2018; Pew Research Center, 2015).

Another possible explanation for why so many participants judged the match-match violation as “okay” is that the alternative judgment—“not okay”—seemed too severe. Even in Studies 1A and 1B, which had more religious samples, some participants did judge the norm violations as okay in the match-match condition. Readers will recall that we selected religious norm violations that participants might encounter in everyday life (see Introduction), which they would likely judge less severely than certain unusual norm violations, such as the mocking of gods. For less severe norm violations, people can evaluate the acts negatively yet still deem them *okay* (Dahl, Gross, & Siefert, 2020; Dahl & Waltzer, 2020). In one study, about half of U.S. participants judged that a protagonist should help a person in need, but that refraining from

helping would nonetheless be okay (Dahl et al., 2020); notably, such judgments may be more common in the U.S. than in India (Miller, Bersoff, & Harwood, 1990). Correspondingly, in our present studies, participants may have judged that the protagonists in the match-match condition *should* follow the religious norm even though it would be *okay* for them to violate the norm.

To provide a more nuanced assessment of religious evaluations, Study 3 went beyond the dichotomy of “okay” versus “not okay” and asked participants three evaluation questions: (1) *Should* the protagonist follow the religious norm? (2) Would it be *okay* to violate/follow the religious norm? (3) How bad or good would it be to follow the religious norm (on a 7-point scale)? In addition to allowing for more nuance, the last question gave participants the option of rating actions positively as well as negatively.

The second goal of Study 3 was to probe how strongly participants weigh religious norms when those norms are pitted against moral or other considerations. Studies 1 and 2 found that participants often thought a protagonist was obligated to follow the protagonist’s own religious norms, even outside of the protagonist’s own religious contexts. By placing the protagonist outside of the protagonist’s own religious context, our vignettes in Studies 1 and 2 were designed to imply that the protagonist faced some pressure to violate their own religious norm (e.g., breaking the Ramadan fast so as to not offend a host).

However, these vignettes did not explicitly state any competing values that may pressure protagonists to violate their own religious norms.

Some of the most challenging religious dilemmas occur when a religious individual has to choose between violating a religious norm or violating the *rights or welfare of others*, *institutional rules*, or the protagonist's *own wellbeing* (Gieling et al., 2010; Nucci & Turiel, 1993; Turiel, 2015). Examples of such dilemmas abound in pluralistic societies, and these dilemmas challenge religious individuals (Hirsch, Verkuyten, & Yogeeswaran, 2019; Ramadan, 2017). Muslims engaged in physical work in intense heat face a dilemma during Ramadan: whether to fast and risk physical harm or to violate the norm against daytime eating in order to protect their own wellbeing (Hadid, 2018). And in a case that pitted an institutional rule against a religious dress code, the international soccer association FIFA disqualified women from Iran's national team for wearing head coverings, which violated FIFA's dress code (Ahmed, 2018). Conflicts between religious and secular norms have caused communal strife, as in the case of the French ban on face coverings in public spaces (Bindner, 2018).

Study 3 examined how competing secular values create a boundary for the application of religious norms to a non-religious context. American adults read vignettes about a Catholic or Muslim protagonist who was faced with a conflict between a religious norm (e.g., the Muslim norm prescribing that women wear a head covering) and a non-religious consideration. We focused on three types of non-religious considerations: others' rights and welfare (e.g., not hurting another person's feelings), institutional rules (e.g., wearing a sports uniform), and the protagonist's own welfare (e.g., not being made fun of; Dahl & Killen, 2018; Turiel, 2015). For instance, a participant would read a story in which a Catholic woman had to decide whether to cover her shoulders (a religious norm) or wear a sports uniform that revealed her shoulders (an institutional rule).

We expected that most participants would say that the protagonist should follow the religious norm in the face of these conflicts, and that some participants would still say that it was wrong to violate the religious norm (H2). We hypothesized that more religious participants would be more likely to say that the protagonist was *obligated* to follow the protagonist's own religious norm (i.e., that it would be wrong to violate the religious norm; H5).

## 5. Study 3: Judgments about balancing religious and secular norms in American adults

### 5.1. Method

#### 5.1.1. Participants

Participants ( $N = 122$ , 70% female, 29% male,  $M_{\text{age}} = 20.5$  years,  $SD_{\text{age}} = 2.0$  years, range: 18.0–33.0 years) were recruited from a large public university in the Western United States. Power analyses based on Study 2 indicated that a sample size of 100 would yield a power of at least 90% for detecting the effect of religiosity on judgments about whether it was okay for a protagonist to violate the protagonist's own religious norm. In addition to the 122 participants in the final sample, 34 participants began the survey, but their data were removed because they failed comprehension checks ( $N = 15$ ) or did not complete the survey ( $N = 19$ ). For religious affiliation, 11% indicated Catholic, 18% other Christian, 6% Jewish, 4% Buddhist, 12% other religions, and 48% non-religious.

#### 5.1.2. Materials

Each vignette described a Catholic or Muslim protagonist who faced a conflict between a religious norm and a consideration based on 1) *others' welfare* (moral), 2) *institutional rules* (conventional), or 3) the protagonist's *own welfare* (prudential). We selected three Catholic norms (saying Grace before lunch, not eating meat on Fridays during Lent, and covering shoulders [women]) and three Muslim norms (doing the Zuhr prayer around noon, not eating pork, wearing head covering [women]),

and each norm was pitted against the three competing considerations, yielding a total of 18 vignettes (see SOM). For instance, the vignette pitting the Catholic norm of saying Grace against a concern with *others' rights and welfare* read as follows: "Gabriel is Catholic. Like many Catholics, Gabriel thinks that Catholics should say Grace before eating. One day, Gabriel is having lunch with his friend. His friend is extremely hungry and asks Gabriel if he could skip saying Grace this one time so they could start eating right away."

#### 5.1.3. Procedures

Each participant read all 18 vignettes presented in random order. After each scenario, participants were asked whether (1) the protagonist *should* follow the religious norm, (2) how good or bad it would be to follow the religious norm (on a 7-point scale from "Extremely bad" [−3] to "Extremely good [+3]"), and (3a) whether it would be okay to follow the religious norm (if participants said the protagonist *should not* follow the norm) or (3b) okay not to follow the norm (if participant said the protagonist *should* follow the norm).

After responding to the vignettes, participants completed the same questionnaires about religious affiliation, religious and social attitudes, and demographics as in Study 2.

#### 5.1.4. Data reduction and analysis

As in Study 2, the two indices of religiosity (importance of religion, religiosity) were similarly standardized and combined into a composite measure using principal component analysis (variance accounted for by first component: 92%). In addition, the three indices of intergroup attitudes (liking, time spent, and friends) were combined to create composite scores for attitudes toward Catholics (first component: 55% of variance) and Muslims (first component: 55% of variance). As in Studies 1 and 2, data were analyzed using GLMMs. The models included random intercepts for individuals and norms and fixed effects of the type of conflict (moral, conventional, personal), and composite religiosity score. Again, there were no significant effects of attitudes toward Catholics or Muslims,  $ps > 0.05$ , so these analyses are not reported below.

### 5.2. Results

#### 5.2.1. Should the protagonist follow the religious norm?

In 85% of situations, participants judged that the protagonist should follow the religious norm. Participants' judgments varied significantly by the type of conflict,  $D(2) = 21.18$ ,  $p < .001$  (Fig. 5). Participants were more likely to say that the protagonist should prioritize the religious norm over *others' welfare* (89%), compared to over *institutional rules* (84%) or the protagonist's *own welfare* (82%), Wald tests:  $\chi^2(1) > 9.87$ ,  $ps < 0.002$ . The two latter conditions did not differ significantly,  $\chi^2(1) = 2.31$ ,  $p = .13$ . There was no significant effect of participant composite religiosity,  $D(1) = 1.36$ ,  $p = .24$ .

#### 5.2.2. How good or bad would it be to follow the religious norm?

On average, participants rated the act of following the religious norm between "Neither good nor bad" (0) and "Slightly good" (1,  $M = 0.54$ ,  $SD = 1.08$ ). There was no significant effect of conflict type,  $D(2) = 2.97$ ,  $p = .23$ , religiosity,  $D(1) = 1.13$ ,  $p = .29$ . Unsurprisingly, participants tended to give more negative ratings when they said the protagonist should not follow the religious norm ( $M = -0.24$ ) than when they said the protagonist should follow the religious norm ( $M = 0.68$ ),  $D(1) = 176.84$ ,  $p < .001$ .

#### 5.2.3. Is the protagonist obligated to follow the religious norm?

In 28% of cases, participants said that it was obligatory to follow the religious norm (i.e., judging that the protagonist *should* follow the norm and that it would be *wrong to violate* the norm). More religious participants were more likely to say that the protagonist was obligated to follow the religious norm,  $D(1) = 4.95$ ,  $p = .026$  (H5). On average, the 25% most religious participants said that the protagonist was obligated

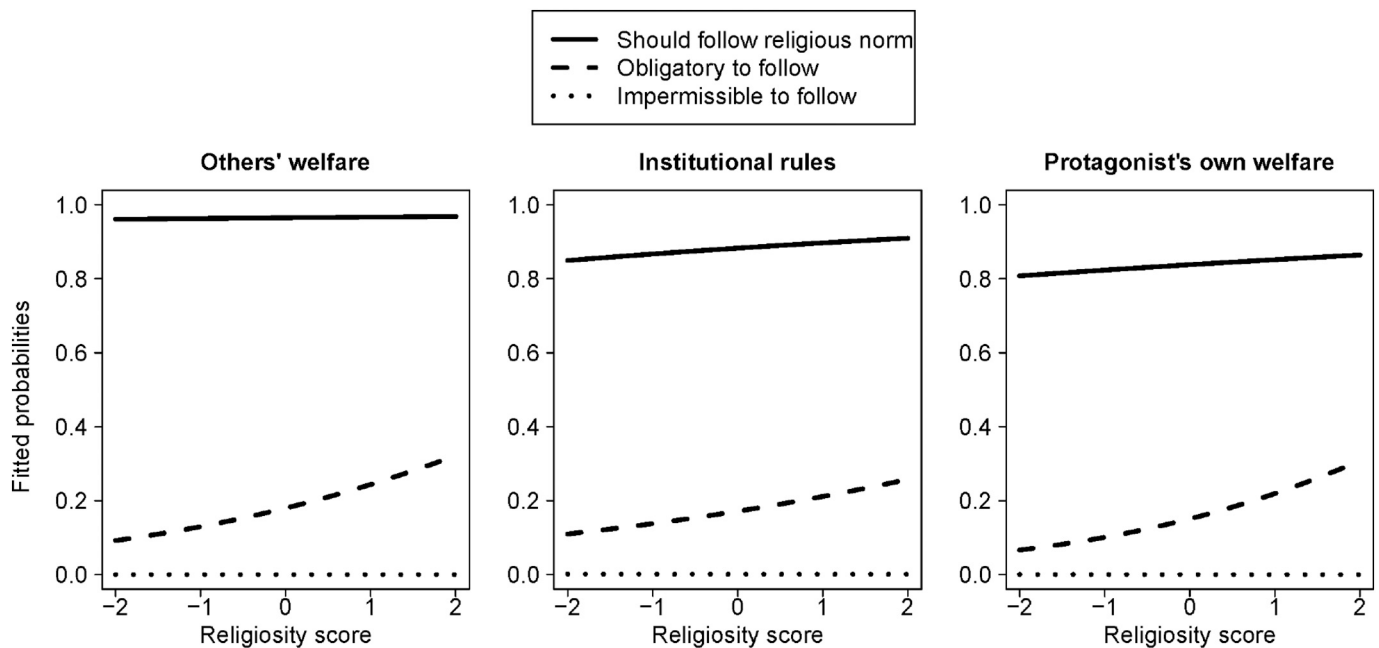


Fig. 5. Study 3: Judgments about adherence to religious norms.

Note. The graph shows participants' propensity to say that the protagonist should follow the religious norm (solid lines), and whether it was obligatory (dashed lines) or impermissible (dotted line) to follow the religious norm, in response to conflicting considerations. Lines show fitted probabilities derived from GLMMs estimated separately for each conflict type.

to follow the religious norm in 41% of cases, whereas the 25% least religious participants said that following the norm was obligatory in only 21% of cases. The effect of religiosity remained significant when removing Catholic and Muslim participants,  $D(1) = 5.15$ ,  $p = .023$ . There was no significant effect of conflict type,  $D(2) = 5.35$ ,  $p = .07$ .

#### 5.2.4. Is the protagonist permitted to follow the religious norm?

In only 2% of cases did participants say that it was impermissible to follow the religious norm. That is, when participants said that the protagonist should *not* follow the religious norm (15% of cases) they nevertheless said it would be okay to follow the religious norm in 80% of the time. The propensity to say that it was impermissible to follow the religious norm did not depend significantly on conflict type,  $D(2) = 0.16$ ,  $p = .92$ , or religiosity,  $D(1) = 1.31$ ,  $p = .25$ .

### 5.3. Study 3 Discussion

Study 3 provided novel evidence on the nature of people's evaluations of religious norm violations and how people balance the prescriptive force of religious norms against competing, non-religious concerns with others' rights/welfare, institutional rules, and the protagonist's own welfare.

Going beyond the "okay" versus "not okay" judgments of Studies 1 and 2, Study 3 asked participants whether the protagonist should follow the norm, whether it would be okay to follow or violate the norm, and how bad or good it would be to follow the norm. In most cases, both religious and non-religious participants recommended that the protagonist follow the religious norm. This supports our speculation that some participants in Studies 1 and 2 who said the norm violation would be "okay," even in the match-match conditions, may still have judged that it would be better for the protagonist to follow the religious norm (see Study 2 Discussion). In other words, some participants may have viewed religious norms as "supererogatory": good to follow, but okay to violate (Dahl et al., 2020; McNamara, 2011).

In 28% of cases, participants considered it *obligatory* to follow the religious norm (H2). As in Studies 1B and 2, more religious participants were more likely to say that the protagonist was *obligated* to follow the

protagonist's own religious norms, even when faced with conflicting considerations (H5). Finally, participants—including less religious participants—almost never thought it was wrong for the protagonist to follow the religious norm when faced with dilemmas. And when asked how good it would be for the protagonist to follow the religious norm even participants who said that the protagonist should *not* follow the religious norm gave only a slightly negative average rating ( $M = -0.24$ ), between "Slightly bad" (−1) and "Neither good nor bad" (0). Thus, on the whole, both religious and non-religious participants tended to accept, or even favor, adherence to religious norms.

It may seem surprising that so many non-religious participants said the protagonist should prioritize the religious norms over non-religious considerations, even if non-religious participants were less likely than religious participants to view such norms as obligatory. The finding parallels our findings from Studies 1 and 2. In those studies, in the absence of a dilemma, participants judged it wrong for a protagonist to violate a norm from the protagonist's own religion even when the participants did not share that religion (Srinivasan et al., 2019). Participants may have believed that following the norms that one endorses is a matter of personal integrity—irrespective of whether participants themselves endorsed those norms (for discussion, see e.g., Scanlon, 1998; Williams, 1985). Someone who dislikes sports could still recognize that an avid sports fan should root for their favorite team.

Notably, participants' judgments about what the protagonist should do varied significantly by the conflicting value: participants were more likely to say that the protagonist should prioritize the religious norm over the *others' welfare* than over *institutional rules* or protagonist's *own welfare*. (Still, for all three conditions, most participants said that the protagonist should prioritize the religious norm.) Consistent with prior research, judgments about dilemmas were therefore sensitive to the kinds of values being balanced (Dahl, Gingo, Uttich, & Turiel, 2018; Turiel, 2015). However, we do not wish to suggest that in such dilemmas, people always prioritize religious norms or place greater weight on institutional rules than on others' welfare. In the present study, we sought to design dilemmas that were likely to occur in everyday life and, hence, were of relatively low intensity. For instance, the severity of the consequences to others' welfare will likely matter



when weighing whether follow a religious norm (e.g., keeping someone temporarily hungry vs. physically harming someone). Indeed, most religious youth think it would be wrong to harm someone for no reason, even if the god(s) of their religion gave permission (Nucci & Turiel, 1993; Srinivasan et al., 2019). Thus, if a perceived religious norm required a follower to harm another person, be it in the form of honor killings or terrorist attacks, we expect that many people would judge that the person should *not* follow their own religious norms.

## 6. General discussion

Violations of religious norms can cause major, and even violent, conflicts (Atran & Ginges, 2012; Fiske & Rai, 2014; Mekhennet & Cowell, 2008; Safi, 2016). Such conflicts arise over disagreement about when, and to whom, religious norms apply and about whether religious people should violate their norms in favor of secular concerns. Four studies with diverse samples and religious norms were consistent with our predictions (Table 1). Before discussing the broader implications of our findings, we will briefly summarize them here.

Adolescents and adults in India and adults in the United States were most likely to say that it was wrong to violate a religious norm when the norm religion matched both the protagonist religion and the context religion (H1, e.g., a Muslim eating during the daytime in Ramadan in a Muslim home). Still, up to 65% of participants thought the protagonist's action was wrong even when protagonists crossed religious boundaries, as when the norm religion matched only the protagonist religion (H2, e.g., a Muslim eating during the daytime in Ramadan in non-religious school) or only the context religion (H3, e.g., a Catholic eating during the daytime in Ramadan in a Muslim home). In our adult samples, more religious participants were especially likely to judge that it would be wrong for the protagonist to violate the protagonist's own religious norms, even when—as in Study 3—the protagonists faced pressures to violate their religious norm (H5). In marked contrast, participants almost never thought the norm violation was wrong when the norm religion matched neither the protagonist religion nor the context religion (H4, e.g., a Catholic eating during the daytime in Ramadan in their own home).

The findings support our framework for explaining how youth and adults apply religious norms across individuals and contexts. The consistent support for our hypotheses is especially striking in light of the many differences in the samples, methods, and stimuli across the four studies. The findings also support the contention that both Western and non-Western, religious and non-religious, individuals distinguish among religious, moral, and other norms (Killen & Smetana, 2015; Turiel, 1983, 2015). In contrast to this view, some authors have argued that it is mainly liberal, Western (and largely secular) individuals who separate moral concerns about others' welfare and rights from religious and conventional concerns (Fiske & Rai, 2014; Haidt, 2013; Levine et al., 2021; Machery, 2018; Shweder, Mahapatra, & Miller, 1987). For instance, Machery (2018) wrote that "Indian participants do not seem to draw the distinction between moral and non-moral norms" (p. 263), while Fiske and Rai (2014) proposed that "[f]or a religious person there is no morality that transcends God's will, and, indeed, morality precisely consists of obedience to God" (p. 108).

While the present research did not directly assess participants' distinctions among religious, moral, and conventional norms, we can compare the current findings on how people applied religious norms to prior findings on how people applied moral and conventional norms. Unlike moral prohibitions against hitting or stealing, the religious norms of one religion were not applied to members of other religions across all contexts (Nucci & Turiel, 1993; Srinivasan et al., 2019). Unlike most secular conventions, however, religious norms were sometimes carried from one context to another, as when participants judged that it was wrong for a Muslim to break the fast during Ramadan even when at school or in a Catholic home (Dahl & Waltzer, 2020; Gieling et al., 2010). Because of the unique ways in which individuals apply religious

norms across religious boundaries, religious norms pose particular conundrums for tolerance and intergroup relations, as we will discuss next.

### 6.1. Religious norms, tolerance, and intergroup relations

The phenomena uncovered in our research relate to, yet differ from, the concept of religious tolerance, as usually construed in the psychological literature. Tolerance typically means to accept a person or practice that one otherwise dislikes (see Brewer & Pierce, 2005; Forst, 2017; Mummendey & Wenzel, 1999; Verkuyten & Yogeeswaran, 2017). For instance, a person may be said to *tolerate* the Catholic practice of saying Grace before a meal if they find the practice bothersome, but nevertheless accepts that their Catholic guest will do it. In contrast, a person who generally likes, or even partakes, in the saying of Grace before meals would not be said to tolerate the practice (Verkuyten & Yogeeswaran, 2017).

Our research examined one factor that can enable such tolerance: the application of religious norms. We found that members of one religion readily accepted violations of their own religious norms by members of another religion, especially in contexts associated with that other religion. We also found hints of tolerance toward violations within a religion: Participants often found it acceptable for protagonists to violate the norms of the protagonist's religion outside the contexts of that religion (e.g., a Catholic skipping prayer in non-Catholic context). Tolerance, both within and between groups, is crucial for co-existence in a pluralistic society, since it allows people to coexist peacefully with practices they dislike (Sullivan & Transue, 1999). As our research indicates, tolerance across religious boundaries depends, in part, on how individuals apply religious norms.

Beyond tolerance, our research also points to a further way in which the application of religious norms shapes religious coexistence. Across our studies, participants—and especially more religious participants (in Studies 1B, 2, and 3)—often endorsed the norms of religions that they do not follow. In Study 1, for instance, most Muslims said it would be wrong for a Hindu protagonist to violate the Hindu prohibition against eating meat during the festival of Shivaratri. Similarly, most participants in Study 3 said that a religious protagonist should follow the protagonist's own religious norms in a non-religious context, even when the protagonist's religious affiliation differed from their own. Individuals' endorsement of the norms of other religions is a potentially important, yet understudied, phenomenon that could prevent religious conflict in pluralistic societies.

The finding that people sometimes endorse norms of a religion to which they do not adhere hints at the complexity of relations between group membership and norm acceptance (Goldring & Heiphetz, 2020; Killen et al., 2013; Tripathi et al., 2014). People do not automatically reject the norms of an outgroup, nor do they think that the norms of their own groups should be blindly followed in all contexts. Rather, individuals evaluate the purpose and scope of each norm in order to decide whether to apply it to a given individual in a given context (Dahl & Waltzer, 2020; Hirsch et al., 2019; Turiel, 2015). Although the present research did not find significant relations between attitudes toward a religious group and judgments about violations of norms from that religion, such relations may well arise in some circumstances (Verkuyten & Yogeeswaran, 2017). In our studies, participants tended to signal positive attitudes toward the religious groups in question. We expect that people may judge violations of their own religious norms more harshly—both by outgroup and ingroup members—if they perceive their own religion or way of life under threat, as is often the case with fundamentalism (Altemeyer & Hunsberger, 2004; Armstrong, 2014; Emerson & Hartman, 2006).

### 6.2. Limitations and future directions

Our findings point toward several further questions about how youth and adults reason about religious norms (King & Boyatzis, 2015;

Srinivasan et al., 2019). From childhood, people treat religious norms as distinct from universalized moral norms regarding welfare and rights and from context-specific conventions (e.g., about school uniforms; Turiel, 2015). Still, many outstanding questions remain. How is reasoning about religious norms affected by encounters with members of other religions? How do religious youth reason about differences between the norms of their own and other religions? And why do some fundamentalists come to extend their religious norms to everyone and seek to punish non-believers?

The present study included Hindu and Muslim adolescents and adults from India, which have been underrepresented in psychological research (Tripathi et al., 2014). Our American samples included a variety of religious affiliations, although they included relatively few members from each religion. It will be important to obtain large samples of religious and secular individuals from other religions and regions, which may differ from our samples in their propensities to apply religious norms. For instance, members of ethnic, non-proselytizing religions like Judaism may be less likely to extend their norms to non-members, whereas religious individuals in less pluralistic societies may be more likely to extend their religious norms to others.

Whereas the similarities across our four studies speak to the robust support for our hypotheses, the differences should be interpreted with caution. The four samples differed not only in age (adolescents vs. adults), religious affiliation (Hindu, Muslim, Catholic, and secular), and country (India vs. United States) but also along several other demographic and cultural dimensions. Even though we collected data about Muslim norms in both India and the United States, the social position and identity of Muslims differ between India and the United States (Bernheimer & Rippin, 2018). For one thing, Muslims constitute about 10% of the population of India but only about 1% of the population in the United States.

Clearly, none of the samples of participants studied here should be taken as representative of the entire country in which they were collected. For instance, the participants in Studies 2 and 3 were students at two public research universities in the Western United States; as a group, they are less religious and more politically liberal than individuals living elsewhere in the United States. Although it is more common for individuals to identify as secular in the United States than in India, the United States has many deeply religious communities, including some fundamentalist ones, from faiths other than the two we focused on in Studies 2 and 3 (Corrigan & Hudson, 2018). It will be valuable, for instance, to compare results from religious samples in India to more comparable religious samples in the United States from multiple denominations. Future research should also examine how applications of religious norms vary by the intersections of religious affiliation and demographic variables, such as ethnicity or education. Lastly, the comparison of Studies 1A and 1B initiated a developmental study of the application of religious norms across individuals and contexts. Further longitudinal and cross-sectional studies on children and adolescents are needed to understand how their judgments around religious norms develop.

Crossing religious boundaries can lead to challenges and ambiguities. Indeed, our participants often disagreed about whether a religious norm should apply to a particular action, in part as a function of their religiosity. Participants' open-ended responses suggested that another source of disagreement is whether the violation of the norms of another religion affects members of that religion, for instance whether Muslims are offended if Hindus or Catholics eat in front of them during Ramadan (see SOM). An additional source of ambiguity, not examined here, is that some religious contexts are disputed. The same space can be considered holy by members of multiple religions—e.g., a site in the Indian city of Ayodhya is sacred to both Hindus and Muslims. Violent conflicts often arise over such sites (e.g., Yardley, 2010). Our findings suggest that disagreement about which religious norms to apply in mixed religious contexts could contribute to such conflicts. Disagreements over which religious norms to apply may also be guided by cultural narratives, as

when politicians portray India as a Hindu nation or the United States as a Christian nation (Ellwood-Lowe, Berner, Dunham, & Srinivasan, 2020; Haselby, 2017). Our findings imply that people who define a country as belonging to a particular religion will be more likely to judge that all inhabitants should follow the norms of the country's religion. (Indeed, in officially religious states like the Vatican or Saudi Arabia, even non-believers are required to adhere to certain norms of the state religion.) Finally, a further source of disagreement about the application of religious norms could be the perceived ramifications of norm violations. For instance, individuals who deem that a religious norm violates the rights, welfare, or fair treatment of others—as when they view a religious dress code as treating women unfairly—may be more likely to condemn adherence to this norm, regardless of the religious context (Dahl & Waltzer, 2020; Hirsch et al., 2019; Turiel, 2015; Turiel, Killen, & Helwig, 1987).

### 6.3. Conclusion

We began this paper with a consideration of the several violent conflicts that arose when the norms of one religion were violated by members of another secular or religious group. At the conclusion of this paper, we suggest two possible explanations for such violent reactions. One possibility is that Hindu mobs in India who attacked Muslims for killing cows, for example, believed that India is a Hindu context, in which Hindu norms apply (Ellwood-Lowe et al., 2020). Similarly, those who protested the publications of drawings of the Prophet Muhammad may have considered the Prophet Muhammad to constitute a Muslim context in which Muslim norms of aniconism apply, unlike the drawing of prophets from other religious traditions (Bilefsky, 2006). In addition, violent reactions could derive from the rare individuals who do extend their own religious norms to all humans in all contexts, as is the case with some religious extremists (Juergensmeyer, 2017). The present research did not examine such religious extremism; still, we have shown how, in a context associated with a specific religion, individuals often apply the norms of that religion to people with other religious affiliations (e.g., applying Catholic norms to non-Catholics in a Catholic context).

The present work advances scientific theory and evidence about the individual and contextual factors that shape reasoning about religious norms and violations. We demonstrated that youth and adults *do* extend religious norms to members of other religions and other contexts under some conditions. Specifically, the findings indicate that individuals often apply religious norms when the religion of the norm matches either the religion of the protagonist, the religion of the context, or both. Moreover, this work suggests that personal religiosity helps account for individual differences in judgments about violations of religious norms. These insights provide a new theoretical and empirical foundation for understanding how religious conflict and peaceful coexistence arise.

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This research was supported by an award from the Hellman Family Faculty Fund to M. Srinivasan. We are grateful to the teachers, staff, students and families at Zenith School, including Abbasi Barodawala, Mary Joseph and Tazim Shaikh. We thank Nameera Akhtar, Gil Die-sendruck, Larry Nucci, and lab members at UC Santa Cruz and UC Berkeley for helpful comments on earlier versions of this manuscript.

Link to raw data: [https://osf.io/rkgey/?view\\_only=0c73290b37d04f3a9950e711055f2a09](https://osf.io/rkgey/?view_only=0c73290b37d04f3a9950e711055f2a09).

## CRediT authorship contribution statement

**Audun Dahl:** Conceptualization, Methodology, Formal analysis, Writing – original draft. **Catherine Berner:** Investigation, Writing – review & editing. **Jehanita Jesuthasan:** Data curation, Writing – review & editing. **Jonathan Wehry:** Investigation, Writing – review & editing. **Maresh Srinivasan:** Conceptualization, Methodology, Formal analysis, Writing – original draft, Supervision.

## Declaration of Competing Interest

None.

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.cognition.2022.105174>.

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