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Running head: RELATIONAL CONTEXT EFFECTS ON MORAL JUDGMENT

Wrongness in different relationships: Relational context effects on moral judgment

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ABSTRACT

Morality primarily serves socio-relational functions. However, little research in moral psychology investigates how relational factors impact moral judgment, and a theoretically grounded approach to investigating relational context effects on moral judgment is lacking. We used Relationship Regulation Theory (Rai & Fiske, 2011) and Moral Foundations Theory (Graham et al., 2011) to explore how varying the relationship between actors and victims impacts judgment of different types of moral violations. Across three studies, using a diverse range of moral violations and varying the experimental design, *relational context* substantially influenced third-party judgment of moral violations, and typically explained variability in moral judgment independent of several factors that have consistently been shown to strongly correlate with moral judgment (e.g., political ideology; moral value endorsements). Results lend novel but mixed support to Relationship Regulation Theory, and provide some novel implications for Moral Foundations Theory. These studies highlight the importance of relational factors in developing a comprehensive understanding of moral psychology, and provide guidelines for exploring how relational factors might shape moral judgment.

Keywords: moral foundations; moral judgment; moral motives; relational context; relationship regulation theory

Morality is an inherently social phenomenon. Indeed, social life seems impossible without the ability to discern right from wrong (e.g., Haidt, 2001, 2007). So how do people decide how wrong certain acts are? What factors are important in this process? Past research offers several answers to these questions. For example, moral judgments seem to vary based on the social identity of the victim (e.g., race; Uhlmann et al., 2009), as well as individual differences in factors like political ideology and religious belief (e.g., Graham et al., 2011).

The notion that the *relational context* of a moral act (e.g., who is doing the action and to whom) should influence how wrong we judge that act is hardly surprising. Indeed, it is easy to think of actions that one may find permissible when done by one person but objectionable when done by someone else: for example, my sibling can take my belongings without asking, but my officemate must ask first; also, one might feel worse after ridiculing another person's weight gain if that person is a spouse rather than a casual acquaintance. It would seem, therefore, that relational context is inherently important in understanding variability in moral judgment. Indeed, several major scholars have stressed this point (e.g., Bloom, 2011; Fiske, 1991; Greenwood, 2011; Rai & Fiske, 2011). Yet oddly enough, relational context is given scant attention in the field of moral psychology (and also in moral philosophy; e.g., Kant, 1785/1989). This is a problem which Bloom (2011) refers to as "the crisis in moral psychology". Bloom notes that although most real-world moral judgments are about actions occurring in specific relational contexts (e.g., between mother and child), most research in the field focuses "on how people judge...the interactions of unrelated strangers...lead[ing] us to ask the wrong questions, design the wrong studies, and develop the wrong theories." (p.27).

So how might we begin to appropriately explore relational context effects on moral judgment? What are the *right* studies and theories? Although some research has somewhat addressed relational context effects on moral judgment (e.g., Haidt & Baron, 1996; Selterman

& Koleva, 2014), these studies only covered a limited range of moral concerns. More importantly, they vary in whether relational context was an important factor or not. Echoing Bloom (2011), these inconsistencies across different research paradigms suggest that what is lacking is the “right” theoretical basis upon which to explore moral judgment in different relational contexts.

One novel theory that places relational factors at the forefront of moral psychology is *Relationship Regulation Theory* (RRT; Rai & Fiske, 2011). RRT stresses that judgments of right and wrong are inherently embedded into four cognitively distinct frameworks that guide human social interaction (i.e., the four relational models of human social cognition; Fiske, 1991). It follows, according to RRT, that moral judgment depends largely on the varying activation of four distinct kinds of motivations people use to coordinate various interpersonal relationships (e.g., people can be motivated to seek unity/solidarity with close others, or to maintain order in a social hierarchy). RRT proposes that to understand relational context-based variability in moral judgment we must first appreciate that human socio-moral cognition varies chiefly based on differences between these four socio-moral motives. Accordingly, in three studies we used RRT as a guide to explore variability in moral judgment across different relational contexts. Primarily, we sought to establish appropriate ways to explore relational context effects on moral judgment and demonstrate that moral judgments vary substantially when relational contexts vary according to the tenets of RRT.

Relationship Regulation Theory and Moral Judgment

RRT builds on Relational Models Theory (Fiske, 1991; Haslam, 2004), which posits four cognitively basic, underlying ways in which humans understand social relationships (i.e., the four relational models: Communal Sharing, Authority Ranking, Equality Matching, and Market Pricing). RRT posits that morality, rather than being an abstract system of context-general rules, values, or concerns for consequences, above all consists of regulating

interpersonal relations. People coordinate interactions using one or a combination of relational models, each of which imposes different moral imperatives and corresponding *moral motives* (MMs) for regulating relationships. In communal sharing relationships, *Unity* is the MM to protect and support members of one's ingroup by avoiding/removing threats of social contamination, and providing empathy, aid, and protection to ingroup members in need. This motive encourages an "all for one, one for all" mentality, meaning that moral events are experienced collectively (e.g., harm to one person is harm to the collective). In authority ranking relationships, *Hierarchy* is the motive to create and sustain ordinal rank in social relations. Subordinates must respect and defer to superiors, while superiors must provide leadership, wisdom, and protection. When determining what is just or fair, one considers issues of rank and entitlement: for example, it is fairer to treat superiors rather than subordinates with privilege. In equality matching relationships, *Equality* is the MM for ensuring in-kind reciprocity, and evenly-balanced treatment, voice, and opportunity. Under this motive, fairness is determined using a strict rubric of one-for-one equality. Also, rights, entitlements, responsibilities, and resources are distributed equally. Finally, in market pricing relationships, *Proportionality* involves a ratio metric used to determine what is fair, just, and *rational* right. Adopting this motive entails an equity-based sense of fairness: rights, privileges, and benefits are fair if calibrated in proportion to merit, desert, or input.

RRT proposes that an action (e.g., failure to reciprocate favours) or a condition (e.g., inequality) may threaten the integrity of some relationships, but not others. According to RRT, this is because different relationships activate different MMs and hence different standards of evaluation: what is acceptable in one relationship is wrong in another. For example, consider a student interacting with either (a) fellow classmates or (b) a teacher. Under (a), a judge's attention, concerns, and judgments may be guided chiefly by the Equality motive. Acts that generate inequality (e.g., not taking turns, unequal distribution)

will be particularly concerning. Yet under (b), the judge's attention and concerns may be oriented to the Hierarchy motive. The same acts of inequality are consistent with the student-teacher relationship; instead, the judge's attention will be directed toward actions such as disobedience or abuse of power. Hence, the very same moral action should be judged differently, depending on the moral motive implicated in the relational context. Beyond substantial empirical validation of RRT's precursor, Relational Models Theory (see Haslam, 2004), RRT itself has received some preliminary empirical support (Simpson & Laham, 2015a, 2015b).

Moral Foundations Theory

In exploring relational context effects on moral judgment, we required a wide range of moral concerns and violations. *Moral Foundations Theory* (MFT; Graham et al., 2011; Haidt, 2007) provides a comprehensive account of moral values. It expands on Western notions of morality (which traditionally focused on concerns of care, harm, and justice/fairness), proposing five discrete sets of moral values/intuitions. *Care* and *Fairness* are theorized as *individualizing* foundations, as they protect the rights and safety of individuals (rather than groups). Care emphasizes compassion, empathy, and non-harm, while Fairness stresses equality, justice, and reciprocity. The other three foundations are theorized as *binding* foundations, as they "bind" people together by prioritizing concern for the collective over the individual. *Loyalty* involves a moral duty to support the ingroup and to show loyalty to close others. *Respect* prescribes a moral duty to revere and submit to higher status persons. Finally, *Purity* entails a moral duty to avoid physical/spiritual contaminants (e.g., religious taboos) that may threaten the purity and cohesion of the ingroup. MFT has received empirical support in numerous studies (in particular, Graham et al., 2011).

MFT has made invaluable contributions to the moral psychology literature by expanding our knowledge of the various contents of individuals' moral judgments and by

highlighting important individual differences in moral values. However, no research has systematically explored how varying relational context affects judgments of violations pertaining to each moral foundation (but see Simpson & Laham, 2015a; discussed later). We sought to address this research gap in the present studies.

The Present Research

Some past research shows certain evidence for relational context effects on moral judgment. For example, Haidt and Baron (1996) varied relationships along dimensions of either hierarchy or equality to investigate judgments of violations (most of which pertained to the Care and Fairness foundations); Kurzban, DeScioli, and Fein (2012) investigated judgments of harm-based moral dilemmas when actors and victims were either friends, brothers, or strangers; also, Selterman and Koleva (in 2014) explored judgments of disloyal acts in various close relationships. However, these studies did not investigate relational context effects using judgments of moral foundations violations, thus limiting their coverage of the moral domain. Also, relational contexts were not designed using the tenets of RRT. For example, Selterman and Koleva found that relational context was a weak or non-significant predictor of wrongness compared to other factors (e.g., gender). But the relational contexts they contrasted were ‘romantic partner’ and ‘best friend’ (both align with the Unity MM), and ‘stranger’ (essentially a null relationship with weak and ambiguous moral motivation). Hence, the limited role of relational context in their results might be because they only seemed to address one MM.

In contrast, one study that did investigate moral motives alongside moral foundations (Simpson & Laham, 2015a) showed that individual differences in relational *construal* captured variability in moral judgment. Participants rated the degree to which each MM¹ was

¹Simpson and Laham (2015a) mainly discuss results in terms of relational models (Communal Sharing, Authority Ranking, Equality Matching, and Market Pricing) and not their corresponding moral motives (Unity,

relevant in coordinating various dyadic relationships (e.g., colleagues); for example, individuals high in average Unity construal (averaged across numerous dyadic relationships) tended to judge Loyalty violations occurring in these relationships more harshly. Although suggestive of relational context effects, relational construals were aggregated across several different relationships that were construable using multiple MMs. That is, participants' MMs were not activated experimentally in a relational context-dependent way, but rather were measured as individual differences in a correlational design. Hence, a truer test of relational context effects (and whether such effects are statistically unique) is wanting. To this end, we used different MM *prototypes* (i.e., dyadic relationships typifying different MMs as discretely as possible).

We relied on the same four MM prototypes across all studies. Although limiting generalizability across relationships within each MM, this better allowed us to consider generalizability in two other domains. First, we sought to demonstrate generalizability across different experimental designs. Some research (e.g., Hsee, Loewenstein, Blount, & Bazerman, 1999) suggests that people evaluate stimuli differently when such stimuli are presented separately (separate evaluation) or alongside other relevant stimuli (joint evaluation). Accordingly, we varied across studies whether participants rated actions in all four MM prototypes (within-participants design) or just one (between-participants design). Second, to ensure that any theoretical implications were not artefacts of stimulus selection, Study 3 used the same MM prototypes as in Studies 1-2 but included a different set of moral foundations violations.

Hypotheses. Our central hypothesis was that varying the relational context in which moral violations take place should predict variability in wrongness judgments independently of other factors relevant to moral judgment. Past research (e.g., Graham et al., 2011;

Hierarchy, Equality, and Proportionality, respectively). This distinction, however, is unimportant; we refer to moral motives (MMs) throughout to avoid unnecessary excesses in terminology.

Seltermann & Koleva, 2014) has found particularly strong effects on moral judgment as functions of gender as well as factors pertaining to moral values, political ideology, and religiosity. Hence, we sought to statistically control for effects of: gender; endorsement of the moral foundations; political belief; and frequency of attendance at religious ceremonies (a common measure of religiosity and one that is particularly relevant to moral judgment; e.g., Ginges, Hansen, & Norenzayan, 2009; Graham et al., 2011).

Beyond this primary goal, we also tested some specific hypotheses derived from RRT and MFT pertaining to the Unity and Hierarchy motives. RRT suggests that Care violations may be most wrong—and Fairness violations least wrong—when committed in communal relationships; hence, we expected that *Care violations should be most wrong in contexts regulated by the Unity moral motive*, and *Fairness violations should be least wrong in Unity relational contexts*. In MFT, Loyalty and Respect each entail more or less particular moral motives for relationship regulation (loyalty and respect can be important in any relationship, but the modal use of these vernacular concepts corresponds to Unity and Hierarchy, respectively), while Purity binds individuals into a larger collective and helps regulate activity within that group (in particular, see Graham & Haidt, 2010). Hence (and as also suggested by RRT), *Respect violations should be deemed most wrong in relational contexts regulated by the Hierarchy moral motive*. Furthermore, *Loyalty and Purity violations should be deemed most wrong under the Unity moral motive*, because Unity motivates people to “uphold group boundaries and avoid contamination of [their] groups” (Rai & Fiske, 2011, p.66).

STUDY 1

In Study 1, we tested hypotheses using a within-participants design. Participants judged the wrongness of violations occurring in four different relationships, each indexing a particular moral motive.

Method

Participants

Ninety-three U.S. citizens (46 male, 47 female) participated online via Amazon's Mechanical Turk (mTurk) ($M_{age}=34.12$, $SD=10.70$). All participants responded correctly to two attention-check items, inserted at random points in the survey.

Materials

Relational contexts. We conducted a pilot study to select MM prototypes for each relational context. Fifty-one participants read descriptions addressing each MM (Haslam & Fiske, 1992), and then classified specific dyadic relationships (e.g., housemates) into one MM (or none). Participants were advised to choose only one MM per relationship. Some, however, chose two; in such cases, both MMs were counted. Relationships for the pilot were chosen *a priori* given their high face validity as potential MM prototypes. These were (with hypothesised MM—according to modal American society—in parentheses): Parent-child (Unity or Hierarchy), siblings (Unity or Equality), student-professor (Hierarchy), customer-salesperson (Hierarchy or Proportionality), spouses (Unity or Equality), colleagues (Equality or Proportionality), and housemates (Unity or Equality). Relationships chosen for inclusion in Study 1 were: *Siblings* (Unity); *Student-Professor* (Hierarchy); *Housemates* (Equality); and *Customer-Salesperson* (Proportionality), as each yielded significant non-parametric tests in the expected directions and yielded the highest frequencies of classifications for the expected MM (70%, 90%, 86%, and 86%, respectively). Moreover, these four relationships are typically discussed in terms of these corresponding MMs in the pertinent literature (e.g., Fiske, 1991).

Moral foundations violations. Violations were borrowed from Simpson and Laham (2015a; Study 1), who selected appropriate items (i.e., items adaptable to relational contexts)

from the Moral Foundations Questionnaire (MFQ) and the moral foundations Sacredness Scale, and constructed additional items based on core premises of each foundation (see appendices in Graham et al., 2009). There were four violations per foundation, except eight for Purity (to fully tap the diverse phenomena in this foundation, including concerns of decency, sexual degradation, and spiritual/religious degradation). (See Supplementary Materials A for all violations.)

Covariates. We included several factors commonly shown to be associated with both moral judgment and moral foundations endorsements (e.g., Graham et al., 2011; Koleva et al., 2012; Selterman & Koleva, in 2014). Gender was reported using a binary forced-choice item, while Religious Attendance was measured by asking “Thinking about your life these days, how often do you attend religious services, apart from social obligations such as weddings or funerals?” (*1=never, 6=every week or more than once a week*). Political Ideology was measured using an 11-point scale (*1=Extreme left, 6=Centrist, 11=Extreme right*), following recommendations by Kroh (2007). As high scores indicate *Political Conservatism*, we refer to this measure accordingly. Finally, the Relevance subscale of the standard Moral Foundations Questionnaire (Graham et al., 2011) included 15 items asking participants how relevant various moral considerations are to their judgments of right and wrong (e.g., the Care item “Whether or not someone was cruel”) (*1=not relevant at all, 6=extremely relevant*). The scale includes three items for each of the five moral foundations (all $\alpha>.68$); item order was randomized for each participant.

Procedure

Participants rated the moral wrongness of each violation in each relational context on a 5-point scale (*1=not at all wrong, 5=very wrong*). They judged each violation in each relational context before moving to the next violation. Relational contexts were presented in random order for each violation, and violation order was randomized for each participant.

Participants then completed items addressing the covariates, in the order outlined above.

Results and Discussion

We hypothesized, above all, that relational context would predict moral wrongness over and above known predictors of moral judgment (e.g., gender). Descriptive statistics are displayed in Table 1.

[Insert Table 1 here]

Moral foundation composites were constructed by averaging violations within foundations for each relational context. Mean reliability coefficients (average alphas across all four relational contexts) were: Care—.60, Fairness—.60, Loyalty—.55, Respect—.69, Purity—.80. These are comparable to alphas reported in Graham et al. (2011) (in which alphas ranged from .40—.84); also note that the same items produced strong reliabilities in Study 2, and patterns of results were mostly consistent across Studies 1 and 2.

These composites were submitted to a series of one-way repeated-measures ANOVAs (one for each moral foundation), with Relational Context (Siblings vs. Student-Professor vs. Housemates vs. Customer-Salesperson) as the target factor. We also ran a series of repeated-measures ANCOVAs to assess the unique predictive capacity of Relational Context; each model contained one of the following covariates: (a) endorsement of the pertinent moral foundation (e.g., when analysing judgments of Care violations, we entered scores on the Care dimension of the Moral Foundations Questionnaire [MFQ]), (b) political ideology, and (c) religious attendance. We also ran a mixed-design ANOVA to control for (d) gender. Table 2 displays pertinent results. The assumption of sphericity was violated for all analyses, so the (relatively conservative) Greenhouse-Geisser correction was used.² When no covariate was included in the models (Table 2, first row), Relational Context main effects were significant

² This applies to all ANOVAs/ANCOVAs throughout this paper.

for each foundation and substantial for most. Across 20 analyses controlling for covariates, in only three was the Relational Context effect reduced to non-significance (or marginal significance). Otherwise Relational Context effects were robust to inclusion of variables pertaining to ideology, religious attendance, and gender.

[Insert Table 2 here]

We then ran a planned-contrast ANOVA for each moral foundation in order to test the hypothesized MM-moral foundation links derived from RRT and MFT. (See Figure 1 for all mean wrongness judgments.) Contrast weights are indicated in the following order: (Siblings [Unity], Student-Professor [Hierarchy], Housemates [Equality], Customer-Salesperson [Proportionality]). Except where unexpected patterns of results emerged, we only report results from analyses testing specific hypotheses; although subsequent orthogonal contrasts are possible, there are far too many such contrasts to report, and these would add unnecessary clutter unrelated to our primary goals.

Using (3 -1 -1 -1) contrasts: *Care* violations were judged significantly more wrong in the Siblings (Unity) relational context compared to the other relational contexts, $F(1,92)=45.30, p<.001, \eta^2_p=.330$; *Fairness* violations were judged significantly less wrong in the Siblings context than in the other contexts, $F(1,92)=11.64, p=.001, \eta^2_p=.112$; and *Loyalty* violations were deemed significantly more wrong in the Siblings context compared to the remaining contexts, $F(1,92)=147.33, p<.001, \eta^2_p=.616$. In a (-1 3 -1 -1) contrast, *Respect* violations were judged significantly more wrong in the Student-Professor context compared to the other contexts, $F(1,92)=92.77, p<.001, \eta^2_p=.502$. Finally, Figure 1 indicates that the hypothesis that *Purity* violations would be most wrong in the Siblings context was clearly unsupported. Instead, it looks like Purity violations were judged most wrong in the Student-Professor context (warranting a -1 3 -1 -1 contrast). This contrast was indeed significant, $F(1,92)=142.91, p<.001, \eta^2_p=.608$.

As expected, substantial variability was observed in moral judgments as a function of relational context: Violations were judged differently depending on the MM that generally and primarily organized the relationship in which they took place. The size of these omnibus effects is notable ($.063 < \eta^2_p < .542$), suggesting that judgments of moral foundations violations depend *substantially* on relational context. Moreover, relational context typically accounted for additional variance over and above known correlates of moral judgment.

The specific predictions derived from RRT and MFT were mostly supported, albeit with one notable exception. Purity violations were deemed most wrong in the Student-Professor (Hierarchy) context, inconsistent with theorizing in both RRT and MFT that Purity should serve as an ingroup-binding moral concern, and should thus be more important under the Unity MM (i.e., in the Siblings context). This was explored further in subsequent studies.

STUDY 2

Although Study 1 yielded findings largely consistent with hypotheses, effects may have been driven partly by experimenter demand and/or the joint-evaluation design. Maybe relational context differences in judgment of moral foundations violations emerge only when people engage in explicit, comparative judgments between relational contexts. To address this concern, Study 2 replicated Study 1 in a design in which relational context was a between-participants factor.

In addition, Study 2 included a control (no relational context) condition—in which the relationship between actors and victims was left unspecified—and an ‘inverse-Hierarchy’ condition in which a superior acts toward a subordinate.

Method

Participants

U.S. participants ($N=281$) completed the study online via mTurk. Twenty-seven were removed for failing to correctly answer either one of two attention check items, leaving 254 (159 male, 95 female) participants ($M_{age}=32.87$, $SD=21.86$). Numbers per condition were as follows: Siblings—44; Student-Professor—44; Professor-Student ('inverse-Hierarchy' condition)—44; Housemates—40; Customer-Salesperson—39; Control—43. Proportions of males and females were equivalent across the conditions, $\chi^2=6.79$, $p=.237$.

Materials and Procedure

Violations were retained from Study 1 with the same response scale ($1=not\ at\ all\ wrong$, $5=very\ wrong$), and the same relational contexts from Study 1 were used only now with the added 'inverse-Hierarchy' context and the relational context-free control. Participants were randomly assigned to one of the six conditions. They read instructions asking them to imagine each violation happening in a particular relational context (e.g., "Imagine you saw somebody doing these acts to his or her sibling [just think of sibling relationships in general]. Please rate how wrong you think each act is."). Participants then responded to the violations (presentation order was randomized for each participant), and then completed measures addressing moral foundations endorsements, gender, religious attendance, and political ideology, as in Study 1.

Results and Discussion

For all moral foundations, wrongness judgments in the two Hierarchy conditions were equivalent (independent samples t -tests, $ts<1.47$, $ps>.146$). Hence, we collapsed these to form a single Hierarchy condition, allowing ease of comparison with Study 1. Reliabilities of the moral violations were calculated per foundation, per relational context condition. Alphas (averaged across conditions) were generally good: Care—.78, Fairness—.67, Loyalty—.66, Respect—.81, Purity—.86.

We assessed the unique role of Relational Context in predicting variability in judgment of each moral foundation composite using a series of between-participants ANCOVAs. Table 3 displays pertinent results. Without adding any covariate, there was no main effect of Relational Context on judgments of *Care* violations, but there were main effects on judgments of violations pertaining to Fairness, Loyalty, Respect, and Purity. When testing these effects against covariates, in only two of 16 analyses was the Relational Context effect reduced to non-significance, and these were in fact approaching significance ($ps < .062$). Hence, these Relational Context effects were robust to the inclusion of variables pertaining to ideology, religious attendance, and gender, and were moderately robust to inclusion of moral foundation endorsement.

[Insert Table 3 here]

Then, to test the hypothesised MM-judgment links derived from RRT and MFT, we adopted a similar strategy as in Study 1, using planned-contrasts one-way between-participants ANOVAs. (See Figure 2 for all mean wrongness judgments.) For Care violations, the contrast comparing Siblings against the remaining relational contexts was not significant, $F < 1$. For Fairness violations, the same contrast was marginally significant, $F(1,249) = 3.27$, $p = .072$, $\eta^2_p = .013$, suggesting that these violations may have been judged least wrong in the Siblings context. For Loyalty violations, this same contrast was significant, $F(1,249) = 5.84$, $p = .016$, $\eta^2_p = .023$, meaning these violations were judged most wrong in the Siblings context. For Respect violations, the contrast comparing Student-Professor against the other contexts was not significant, $F(1,249) = 2.21$, $p = .139$, $\eta^2_p = .009$. For Purity violations, Figure 2 indicated that these violations were not judged most wrong in the Siblings context. Hence, and as in Study 1, we based our analysis on inspection of mean wrongness judgments, which suggest that judgments were most severe in the Student-Professor and Customer-Salesperson contexts. A (-2 3 -2 3 -2) contrast comparing Student-

Professor/Customer-Salesperson against Siblings/Housemates/control was significant, $F(1,249)=7.22$, $p=.008$, $\eta^2_p=.028$. All remaining orthogonal contrasts were non-significant ($F_s<1.70$, $p_s>.194$).

As in Study 1, effects of relational context emerged for Fairness, Loyalty, Respect, and Purity, and these typically remained significant after controlling for factors known to be associated with moral judgment. (Unlike Study 1, however, relational context exerted no main effect on wrongness of Care violations.) Overall, therefore, results across the within-participants and between-participants designs in Studies 1 and 2 suggest that independent relational context effects on moral judgments are not artefacts of researcher demand or experimental design. Interestingly, the specific hypotheses linking MMs to moral foundations received little support in this between-participants design, in contrast to Study 1 (although the two studies showed similar patterns of results). Also, Purity violations were again not deemed most wrong in the Siblings (Unity) condition (instead, wrongness was most wrong in contexts governed by Hierarchy and Proportionality MMs). Therefore, results do not support contentions in RRT and MFT that Purity violations threaten close relationships the most.

STUDY 3

The violations used in Studies 1-2 were based closely upon items in the Moral Foundations Questionnaire. Nevertheless, we sought additional data to test hypotheses using a wider range of violations that more fully sample the range of concerns within each moral foundation. Additionally, we used new sets of violations to investigate the Care foundation in more detail. In retrospect, the Care violations in Studies 1 and 2 were mostly *emotionally* harmful, leaving questions of *physical* harm unexplored. Thus we included new Care items addressing physical harm. Finally, we used relatively thorough measures of the covariates for which we sought to control.

Method

Participants

One-hundred U.S. participants participated online via mTurk. Three were removed for incorrectly answering any one of three attention-check items, leaving 97 (44 male, 53 female) participants ($M_{age}=33.62$, $SD=11.19$).

Materials

Moral foundations violations. Violations were borrowed from Simpson and Laham (2015a; Study 2); these violations were derived from a wide range of previous moral judgment research and were validated by assessing (a) which moral foundation pilot-study participants classified each violation into, and (b) correlations with pertinent scales in the standard Moral Foundations Questionnaire (MFQ). There were five items per moral foundation. (See Supplementary Materials B for all violations.)

Covariates. Participants completed measures addressing gender, religious attendance, political ideology, and moral foundations endorsements. We made two slight changes, however. First, we added the Judgment subscale of the MFQ alongside the Relevance subscale. Participants rated their levels of agreement with 15 items (three per foundation; e.g., the Ingroup item “I am proud of my country’s history”), using a *1(strongly disagree)* to *6(strongly agree)* scale. Item reliabilities for each foundation across the Relevance and Judgment subscales were acceptable (all $\alpha s > .68$). We also sought to control for a more specific measure of political ideology, which arguably better addresses ideological differences in moral judgment. We asked participants “What is your political belief regarding *social* issues?” using the same *1-11* scale in Studies 1-2.

Procedure

Participants judged the violations (presentation order randomized for each participant)

using a 5-point scale (*1=not wrong at all, 5=very wrong*). In a within-participants design, participants judged these violations in five different relational contexts: Siblings, Student-Professor, Professor-Student, Housemates, and Customer-Salesperson. Presentation order of these relational contexts was randomized for each item, separately for each participant. They then completed measures addressing the covariates, in the same order as in Studies 1-2.

Results

Comparing wrongness judgments in the two Hierarchy contexts (Student-Professor and Professor-Student), paired-samples *t*-tests showed significant differences for Fairness violations, $t(96)=3.30, p=.001$, and Loyalty violations, $t(96)=2.57, p=.012$. However, as both effects were small (Cohen's $d=.33$ and $.26$, respectively), and as differences were non-significant for Care, Respect, and Purity violations ($ts<1.49, ps>.14$), we collapsed judgments in these two relational contexts, prioritizing parsimony and presentation concerns (aiding comparison with Studies 1-2).

As in Study 1, moral violation composites were constructed by averaging the violations within each moral foundation for each relational context. Mean alphas (averaged across relational contexts) were acceptable: Care—.70, Fairness—.72, Loyalty—.62, Respect—.77, Purity—.66.

We assessed the unique role of Relational Context in predicting variability in judgment of each moral foundation composite using a series of within-participants ANCOVAs. Table 4 displays pertinent results from these analyses. Without adding any covariate to the models, Relational Context was a significant and often strong predictor of wrongness. However, Relational Context effects on Care violation wrongness were not robust to inclusion of any covariate except gender. In contrast, across the remaining 16

analyses, in only two was the Relational Context effect reduced to non-significance. Hence, as in Studies 1-2, Relational Context was typically a unique predictor of moral wrongness.

[Insert Table 4 here]

We then used the same strategy as in Study 1 (i.e., planned contrasts repeated-measures ANOVAs) to test the hypothesized MM-judgment links derived from RRT. (See Figure 3 for all mean wrongness judgments.) The contrast comparing wrongness of Care violations in the Siblings context against the remaining relational contexts was significant, $F(1,96)=9.34$, $p=.003$, $\eta^2_p=.089$; unlike Study 1, however, Care violations were judged *least* wrong in the Siblings context. The same contrast was significant when assessing wrongness of Fairness violations ($F[1,96]=57.65$, $p<.001$, $\eta^2_p=.375$) and wrongness of Loyalty violations ($F[1,96]=51.57$, $p<.001$, $\eta^2_p=.349$). For Respect violations, the contrast comparing the Student-Professor context against the other contexts was significant, $F(1,96)=88.96$, $p<.001$, $\eta^2_p=.481$. Finally, Figure 3 indicated that Purity violations were judged most wrong in the Student-Professor and Customer-Salesperson contexts, not the Siblings context (as in Study 2). The pertinent (-1 1 -1 1) contrast was significant, $F(1,96)=12.85$, $p<.001$, $\eta^2_p=.118$; however, remaining orthogonal contrasts (Siblings vs. Housemates and Student-Professor vs. Customer-Salesperson) were non-significant, $F(1,96)=1.45$, $p=.231$, and $F(1,96)=3.50$, $p=.065$, respectively.

Results were mostly similar to those in Studies 1-2, with Relational Context typically explaining unique variability in wrongness of moral foundations violations. Moreover, consistent with Study 1, specific MM-judgment effects mostly supported the hypotheses drawn from RRT. Again, however, Purity violations were judged most wrong in the Student-Professor (Hierarchy) and Customer-Salesperson (Proportionality) contexts, rather than in the Siblings (Unity) context. Interestingly, unlike in Studies 1 and 2, Care violations were judged less wrong in the Siblings context, suggesting that different types of harmful actions (i.e.,

emotionally vs. physically harmful) can yield different patterns of moral judgment.

GENERAL DISCUSSION

These studies clearly demonstrate that judgments of moral foundations violations vary considerably across relational contexts. This research extends previous work (e.g., Selterman & Koleva, 2014) by using a thoroughly established theory of socio-relational cognition to explore interpersonal relationships as moderators of moral judgment. Furthermore, we found relational context effects on violations pertaining to all five moral foundations, thus extending work by Kurzban et al. (2012; in which violations only addressed the Care foundation), Haidt and Baron (1996; in which all but one violation addressed either the Care or Fairness foundations), and Selterman and Koleva (in which actions were generally violations of Loyalty).

Relational context typically explained variability in moral judgment independent of other correlates of moral judgment, supporting our central hypothesis. Also, this occurred in two different sets of moral foundations violations and two experimental designs (joint-evaluation, within-participants; and separate-evaluation, between-participants), suggesting that results were not due to issues of stimulus selection or researcher demand. This is an important finding, given that the covariates we included in these studies—gender, ideology, religious attendance, and moral values—usually account for a substantial amount of variability in moral judgment. First, there is strong evidence for gender differences in moral judgment (e.g., Graham et al., 2011; Selterman & Koleva, 2014); yet in the present studies, relational context effects were often strongest when accounting for gender differences in wrongness judgments. Second, countless studies depict large variability in moral judgment as a function of political ideology; importantly, this includes judgments of violations pertaining to the moral foundations (e.g., Clifford, Iyengar, Cabeza, & Sinnott-Armstrong, 2015; Graham et al., 2009). Third, religious attendance is associated with variability in

endorsement of the moral foundations (e.g., Graham et al., 2011), while Ginges et al. (2009) found that religious attendance strongly predicted moral judgment of suicide attacks among samples of Palestinians and Israelis. Clearly, therefore, religious attendance is a key factor in understanding variability in moral judgment; nevertheless, it failed to account for the present effects of relational context. Finally, in most analyses relational context effects were robust to inclusion of moral foundation endorsement. This is despite the obvious conceptual correspondence between endorsement of a moral foundation and judgment of acts that violate that foundation.

Overall, this evidence strongly points to the conclusion that if we want to gain a thorough understanding of why individuals vary in their moral judgments, relational context cannot be ignored.

Relationship Regulation Theory

The typically independent predictive role of relational context is in contrast to findings of Selterman and Koleva (2014), who found very few independent effects of relational context in a similar experimental design. This suggests that varying relational contexts according to the four moral motives (compared to other considerations, e.g., varying the closeness of relationships; Kurzban et al., 2012; Selterman & Koleva) is more conducive to capturing relational context-based variability in moral judgment. Hence, (and returning to Bloom's [2011] contentions that we discussed in the Introduction), while RRT might not be the only theory of relational context-based variability in moral judgment, evidence suggests that it may come closest to being a "right" theory. For now, at least, varying relational contexts according to the moral motives of Unity, Hierarchy, Equality, and Proportionality might best allow researchers to design the so-called "right" studies geared toward better understanding why relationships matter so much in moral psychology.

Results also extend Simpson and Laham's (2015a) finding that variability in MM construal of numerous MM-neutral relationships is associated with variability in moral judgment. The current studies showed very similar MM-moral foundation patterns (see Figures 1-3), but used prototypes designed to experimentally activate each MM (rather than measure them in a correlational design). That these two contrasting methodologies converge with similar patterns of MM-moral judgment associations provides added support for RRT's contentions. Relational factors, it seems, are not merely amoral concerns biasing people away from supposedly "true", universal moral judgments (a contention often voiced in traditional psychological theories of moral judgment; e.g., Kohlberg, 1969; Piaget, 1932; Turiel, 1983). Rather, how wrong an action is depends largely on its socio-relational context and the corresponding MM for relationship regulation.

This empirical, "positive" result contrasts dramatically with the prescriptive characterization of morality widely endorsed in philosophy, which typically considers it a defining feature of morality that its principles be universal, applying to all persons (e.g., Kant, 1785/1989; Rawls, 2005). That does not seem to be how American participants make moral judgments; they judge what is right or wrong largely according to the type of relationship in which an act occurs.

Moral Motives and Moral Foundations. Mixed support was garnered for some specific hypotheses derived from RRT. Strongest support emerged for hypotheses pertaining to Respect and Loyalty violations, deemed most wrong in relational contexts regulated by the Hierarchy and Unity MMs, respectively. Contrary to RRT, however, only in Study 1 were Care violations (of the emotional kind) judged most wrong in the Siblings (Unity) relational context, while in Study 3 Care violations (of the physical kind) were *least* wrong when committed between siblings. (No relational context effects emerged in Study 2, suggesting that when not encouraged to contrast different relationships, individuals judge these

violations equivalently across relational contexts.) This points to meaningful differences between emotionally and physically harmful acts, a distinction that is not particularly highlighted in either MFT or RRT. As predicted, Fairness violations were consistently deemed least wrong in Sibling (Unity) contexts, congruent with Rai and Fiske's (2011) contention that "people within [communal] relationships can take freely from each other, as notions of individual ownership are minimized" (p.62).

The Purity foundation provided results least consistent with hypotheses. RRT postulates that purity concerns should be particularly prominent under the Unity motive when one is on guard for acts threatening ingroup dignity and integrity. For similar reasons, MFT describes Purity as an "ingroup-binding" foundation. Nevertheless, Purity violations were consistently judged most wrong in the Student-Professor (Hierarchy) and/or Customer-Salesperson (Proportionality) contexts. Similarly, Simpson and Laham (2015a) found that construal of interpersonal relationships in terms of the Hierarchy motive, but not the Unity motive, was associated with perceived wrongness of Purity violations. Thus, it seems that "impure acts" (e.g., promoting sex-fetish websites, or urinating on someone's grave) are deemed more acceptable in relationships regulated by Unity in which one may be more tolerant of a close other's idiosyncrasies, and more wrong in relationships regulated by Hierarchy or Proportionality in which indecent/impure acts may offend authorities or undermine social order. One possible reason for these results is that the Purity foundation's operationalization in empirical work does not adequately capture the sense in which it is often discussed in theoretical work. That is, there appears a gap between (a) the metaphorical/theoretical use of Purity as a value system aimed at preserving the integrity of groups, and (b) how the foundation is operationalized. Hence, future work should consider an operationalization which more adequately captures the "binding" sense with which Purity is increasingly discussed in moral psychology.

Limitations and Future Directions

In selecting prototypical relationships for each MM we sought clear representation, rather than exhaustive sampling, of each MM. While this aided generalizability across different moral stimuli and different experimental designs, generalizability across MM exemplars warrants further investigation.³ For example, there are obvious differences in how the Hierarchy motive is implemented in student-professor relationships compared to other Hierarchy-based relationships (e.g., citizen-police relations). Moreover, the one dyadic relationship typically involves numerous domains of relationship coordination: e.g., when seeking to understand a perplexing phenomenon, professor and student may work together through a “let’s put our heads together” framework, which would situationally implicate the Unity motive, rather than the Hierarchy motive, for morally-relevant concerns. Hence, future research should investigate whether violations are judged differently depending on the MMs governing not just relational context but also *interactional* context—the specific domain and situation.

Interestingly, Study 2’s between-participants design provided only weak support for the specific MM-judgment hypotheses. Also, judgments of Fairness violations were inconsistent with those in Studies 1 and 3: Figure 2 suggests that these violations were most wrong in the Housemates (Equality) context, and indeed, this was confirmed by the pertinent ANOVA contrast, $F(1,249)=5.08$, $p=.025$, $\eta^2_p=.020$. It is possible that relational context was less salient in Study 2: participants were only prompted with the relational context at the beginning of the moral judgment task (whereas in Studies 1 and 3 relational contexts needed to be highlighted for each violation given the within-participants design). Alternatively, this might suggest that relational context impacts moral judgment in somewhat different ways when relational contexts are presented in isolation than when they are presented

³ But see Simpson and Laham (2015a) for similar MM-moral judgment associations in a different experimental design.

simultaneously (which would be consistent with findings that joint- and separate-evaluation designs often yield contrasting effects; Hsee et al., 1999). This latter possibility may be an interesting topic for future research.

The studies we report here show that moral judgments are often relative to the dyadic relationship in which an act occurs. But there is far more to social relationships than dyads (or groups). RRT and Meta-Relational Models Theory (Fiske, 2011) theorize and provide ethnological evidence that many of the most impelling moral motives are based on models of how social relationships may, must, or must not be *combined*. These are meta-relational models. For example, while most secular Westerners condone consensual sex, few condone sexual relations between a man and his wife's adopted daughter (consider Woody Allen and Soon-Yi Previn). In many cultures one is morally obliged to kill enemies in war. But suppose the enemy you face is your sister's husband—many people would have moral qualms about killing him. To understand the nature of moral motives and actions, we must appreciate that social relationships are rarely isolated from each other; what is right or wrong depends not only on the MM coordinating the dyad, but how that dyad is embedded in a larger configuration of relationships.

Conclusion

In this paper we have established a viable approach to investigate relational context effects on moral judgment. Relationship Regulation Theory (a direct derivative of Relational Models Theory, a thoroughly supported theory regarding the fundamentals of socio-relational cognition) and Moral Foundations Theory (a comprehensive theory regarding the content of the moral domain) provide criteria for varying relational contexts and moral violations that are both theoretically sound and empirically useful.

Observing the present findings, one of the most interesting implications comes from

considering judgments in the control condition relative to the relational context conditions in Study 2. The control is analogous to the relational context-free manner in which most moral psychology experiments are conducted (Bloom, 2011) and most prescriptive moral philosophy is analysed. In some instances, judgments in context-free conditions differ substantially from those in relational context conditions. Except in certain kinds of discourse, such global, decontextualized judgments are uncommon. Most moral judgments are judgments about specific acts or patterns of action of specific persons *in specific relationships* (Bloom, 2011) that they generate using a specific moral motive in a specific way. What people judge is not the action itself, defined in terms of its morphology or consequences, but how the action constitutes relationships. How wrong an act is, or whether it is wrong at all, depends on the relationship between the actor and the persons affected. Abstract, global endorsement of “values” may have little to do with everyday moral judgments occurring in particular relationships. The results herein suggest that variability in relational context can sometimes account for over 50% of variation in moral judgments. Hence, it seems unlikely that a comprehensive understanding of the psychology of morality can be achieved without taking relationships seriously.

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REFERENCES

- Bloom, P. (2011). Family, community, trolley problems, and the crisis in moral psychology. *Yale Review*, 2, 26-43. DOI: 10.1111/j.1467-9736.2011.00701.x
- Clifford, S., Iyengar, V., Cabeza, R., & Sinnott-Armstrong, W. (2015). Moral foundations vignettes: a standardized stimulus database of scenarios based on moral foundations theory. *Behavior research methods*, 1-21. DOI: 10.3758/s13428-014-0551-2
- Fiske, A.P. (1991). *Structures of Social Life: The Four Elementary relational models of Human Relations*. New York: Free Press (Macmillan).
- Fiske, A.P. (2011). Metarelational models: Configurations of Social relationships. *European Journal of Social Psychology* 42, 2–18. DOI: 10.1002/ejsp.847
- Ginges, J., Hansen, I., & Norenzayan, A. (2009). Religion and support for suicide attacks. *Psychological science*, 20(2), 224-230. DOI: 10.1111/j.1467-9280.2009.02270.x
- Graham, J., & Haidt, J. (2010). Beyond beliefs: Religions bind individuals into moral communities. *Personality and Social Psychology Review*, 14, 140-150. DOI: 10.1177/1088868309353415
- Graham, J., Haidt, J., & Nosek, B.A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology*, 96, 1029-1046. DOI: <http://dx.doi.org/10.1037/a0015141>
- Graham, J., Nosek, B.A., Haidt, J., Iyer, R., Koleva, S., & Ditto, P.H. (2011). Mapping the Moral Domain. *Journal of Personality and Social Psychology*, 101(2), 366-385. DOI: <http://dx.doi.org/10.1037/a0021847>
- Greenwood, J.D. (2011). On the social dimensions of morality. *Journal for the Theory of Social Behaviour*, 41, 333-364. DOI: <http://dx.doi.org/10.1111/j.1468-5914.2011.00472.x>

- Haidt, J. (2001). The emotional dog and its rational tail: a social intuitionist approach to moral judgment. *Psychological review*, 108(4), 814. DOI: <http://dx.doi.org/10.1037/0033-295X.108.4.814>
- Haidt, J. (2007). The new synthesis in moral psychology. *Science*, 316(5827), 998-1002. DOI: 10.1126/science.1137651
- Haidt, J., & Baron, J. (1996). Social roles and the moral judgment of acts and omissions. *European Journal of Social Psychology*, 26, 201-218. DOI: 10.1002/(SICI)1099-0992(199603)26:2<201::AID-EJSP745>3.0.CO;2-J
- Haslam, N. (2004). Research on the relational models: An overview. In N. Haslam (Ed.): *Relational Models Theory: A Contemporary Overview*. New Jersey: Lawrence Erlbaum Associates, Inc.
- Haslam, N., & Fiske, A.P. (1992). Implicit relationship prototypes: Investigating five theories of the cognitive organization of social relationships. *Journal of Experimental Social Psychology*, 28, 441-474. DOI: 10.1016/0022-1031(92)90041-H
- Haslam, N., & Fiske, A.P. (1999). Relational models theory: A confirmatory factor analysis. *Personal Relationships*, 6, 241-250. DOI: 10.1111/j.1475-6811.1999.tb00190.x
- Hsee, C.K., Loewenstein, G.F., Blount, S., & Bazerman, M.H. (1999). Preference reversals between joint and separate evaluations of options: a review and theoretical analysis. *Psychological Bulletin*, 125, 576-590. DOI: <http://dx.doi.org/10.1037/0033-2909.125.5.576>
- Kant, I. (1785/1989). *Foundation of the metaphysics of morals*. (Lewis White Beck, Trans.) Indianapolis: Bobbs-Merrill.
- Kroh, M. (2007). Measuring left-right political orientation: The choice of response format. *Public Opinion Quarterly*, 71(2), 204-220. DOI: 10.1093/poq/nfm009
- Koleva, S.P., Graham, J., Iyer, R., Ditto, P.H., & Haidt, J. (2012). Tracing the threads: How

- five moral concerns (especially Purity) help explain culture war attitudes. *Journal of Research in Personality*, 46(2), 184-194. DOI: 10.1016/j.jrp.2012.01.006
- Kurzban, R., DeScioli, P., & Fein, D. (2012). Hamilton vs. Kant: Pitting adaptations for altruism against adaptations for moral judgment. *Evolution and Human Behavior*, 33(4), 323-333. DOI: 10.1016/j.evolhumbehav.2011.11.002
- Rai, S.T., & Fiske, A.P. (2011). Moral Psychology is Relationship Regulation: Moral Motives for Unity, Hierarchy, Equality, and Proportionality. *Psychological Review*, 118, 57-75. DOI: <http://dx.doi.org/10.1037/a0021867>
- Rawls, J. (2005). *A theory of justice (2nd ed.)*. US: President and fellows of Harvard College.
- Seltermann, D., & Koleva, S. (2014). Moral judgment of close relationship behaviors. *Journal of Personal and Social Relationships*. DOI: 10.1177/0265407514554513
- Simpson, A., & Laham, S.M. (2015a). Individual differences in relational construal are associated with variability in moral judgment. *Personality and Individual Differences*, 74, 49-54. DOI: 10.1016/j.paid.2014.09.044
- Simpson, A., & Laham, S.M. (2015b). Different relational models underlie prototypical left and right positions on social issues. *European Journal of Social Psychology*, 45(2), 204-217. DOI: 10.1002/ejsp.2074
- Uhlmann, E.L., Pizarro, D.A., Tannenbaum, D., & Ditto, P.H. (2009). The motivated use of moral principles. *Judgment and Decision Making*, 4, 476-491.

TABLES

Table 1

Descriptive Statistics

	Scale	<i>M</i> (<i>SD</i>)		
		Study 1	Study 2	Study 3
MFQ_Care	1-6	4.84(.83)	4.66(.91)	4.73(.81)
MFQ_Fairness	1-6	4.84(.84)	4.65(.93)	4.58(.73)
MFQ_Loyalty	1-6	3.33(1.06)	3.33(1.07)	3.74(.92)
MFQ_Respect	1-6	3.37(.99)	3.36(1.06)	3.85(.98)
MFQ_Purity	1-6	3.27(1.42)	3.04(1.37)	3.70(1.37)
Religious Attendance	1-6	2.12(1.40)	1.90(1.46)	2.41(1.65)
Political Conservatism	1-11	5.00(2.61)	4.93(2.65)	4.60(2.71)

MFQ=Moral Foundations Questionnaire

Table 2

Analyses Testing for Unique Effects of Relational Context on Wrongness of Moral Foundations Violations (Study 1)

Predictor(s)	<i>Moral Foundation being Violated</i>				
	Care	Fairness	Loyalty	Respect	Purity
	<i>F</i> [η^2_p]				
<i>Relational Context</i>	40.30***[.31]	6.16**[.06]	107.73***[.54]	61.67***[.40]	108.81***[.54]
<i>Relational Context</i>	<1	4.19*[.04]	13.30***[.13]	4.92*[.05]	21.84***[.19]
Endorsement of Pert. Moral Foundation	22.18***[.20]	<1	1.82ns[.02]	3.73^[.04]	27.06***[.23]
<i>Relational Context</i>	19.91***[.18]	<1	35.52***[.28]	16.77***[.16]	27.58***[.23]
Political Conservatism	1.78ns[.02]	<1	2.56ns[.03]	3.01^[.03]	2.45ns[.03]
<i>Relational Context</i>	14.36***[.14]	2.93^[.03]	43.65***[.32]	24.84***[.21]	43.70***[.32]
Religious Attendance	<1	<1	<1	<1	2.07ns[.02]
<i>Relational Context</i>	43.42***[.39]	6.12**[.06]	108.45***[.54]	61.57***[.40]	107.75***[.54]
Gender	5.01*[.05]	<1	<1	7.02**[.07]	6.73*[.07]

Sex entered as a between-participants factor; all other variables entered as covariates.

^ $p < .09$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 3

Analyses Testing for Unique Effects of Relational Context on Wrongness of Moral Foundations Violations (Study 2)

Predictor(s)	<i>Moral Foundation being Violated</i>				
	Care	Fairness	Loyalty	Respect	Purity
	<i>F</i> [η^2_p]				
<i>Relational Context</i>	<1	2.42* [.04]	3.89** [.06]	2.68* [.04]	2.38† [.04]
<i>Relational Context</i>	<1	2.59* [.04]	3.92** [.06]	3.27* [.05]	5.99*** [.09]
Endorsement of Pert. Moral Foundation	96.58*** [.28]	18.15*** [.07]	22.55*** [.08]	23.80*** [.09]	157.56*** [.39]
<i>Relational Context</i>	<1	2.29^ [.04]	3.93** [.06]	2.77* [.04]	2.63* [.04]
Political Conservatism	<1	2.19 <i>ns</i> [.01]	<1	1.66 <i>ns</i> [.01]	13.96*** [.05]
<i>Relational Context</i>	<1	2.41* [.04]	4.13** [.06]	3.02* [.05]	3.07* [.05]
Religious Attendance	4.78* [.02]	3.56^ [.01]	1.93 <i>ns</i> [.01]	6.13* [.02]	27.92*** [.10]
<i>Relational Context</i>	<1	2.31^ [.04]	3.24* [.05]	3.48** [.05]	4.09** [.06]
Gender	24.48*** [.09]	2.43 <i>ns</i> [.01]	12.48*** [.05]	14.32*** [.06]	26.37*** [.10]
Sex entered as a fixed factor; all other variables entered as covariates.					
^ <i>p</i> <.062; † <i>p</i> =.052; * <i>p</i> <.05; ** <i>p</i> <.01; *** <i>p</i> <.001					

Table 4

Analyses Testing for Unique Effects of Relational Context on Wrongness of Moral Foundations Violations (Study 3)

Predictor(s)	<i>Moral Foundation being Violated</i>				
	Care	Fairness	Loyalty	Respect	Purity
	<i>F [η^2_p]</i>				
<i>Relational Context</i>	7.83**[.08]	38.14***[.28]	40.79***[.30]	40.42***[.30]	10.13***[.10]
<i>Relational Context</i>	<1	<1	11.58***[.11]	7.89***[.08]	6.55**[.07]
Endorsement of Pert. Moral Foundation	3.82^[.04]	9.07**[.09]	11.25***[.11]	5.67*[.06]	19.85***[.17]
<i>Relational Context</i>	<1	12.60***[.12]	14.57***[.13]	14.35***[.13]	2.14ns[.02]
Social Conservatism	<1	<1	<1	<1	5.32*[.05]
<i>Relational Context</i>	<1	15.77***[.14]	12.16***[.12]	21.00***[.18]	8.24***[.08]
Religious Attendance	<1	<1	<1	<1	3.62^[.04]
<i>Relational Context</i>	7.20**[.07]	37.45***[.28]	41.40***[.30]	39.57***[.29]	9.75***[.09]
Gender	7.29**[.07]	5.61*[.06]	<1	3.61^[.04]	6.06*[.06]

Sex entered as a between-subjects factor; all other added variables entered as covariates

^[.06]; *p<.05; **p<.01; ***p<.001

FIGURES

Figure 1.

Figure 2.

Figure 3.

FIGURE CAPTIONS

Figure 1. Mean wrongness judgments as a function of relational context (Study 1). Error bars represent standard error of the mean.

Figure 2. Mean wrongness judgments as a function of relational context (Study 2). Error bars represent standard error of the mean.

Figure 3. Mean wrongness judgments as a function of relational context (Study 3). Error bars represent standard error of the mean.

SUPPLEMENTARY MATERIALS A:

Moral foundations violations used in Studies 1 and 2

Care:

- Person-A makes cruel remarks about Person-B's weight and appearance
- Person-A doesn't show sympathy or concern when something bad has happened in Person-B's life and he/she is clearly upset and depressed
- Person-A hurts Person-B's feelings but doesn't apologize or seek amends
- Person-A gives Person-B an old sandwich, knowing it will probably make him/her sick

Fairness:

- Person-A fails to reciprocate Person-B's nice favor
- Person-A is very slow in returning a borrowed item to Person-B
- Person-A cheats in a game of cards played with Person-B for money
- Person-A Purchases food with this person but eats more than an even share

Loyalty:

- Person-A snitches on Person-B after he/she has committed a minor offence
- Person-A "ditches" Person-B because other people think he/she is weird, etc.
- Person-A makes an important promise to Person-B but doesn't keep it
- Person-A doesn't support/stand up for Person-B when others are rallying against him/her unfairly

Respect:

- Person-A interrupts an important meeting Person-B is holding
- Person-A makes a disrespectful hand gesture to Person-B
- Person-A curses Person-B to his/her face
- Person-A mocks Person-B in front of his/her equals

Purity:

- Person-A gives Person-B a flier for an obscure sex fetish website
- Person-A tells Person-B a series of very disgusting jokes
- Person-A uses sexually lewd language when talking to Person-B

- Person-A shakes hands (or something similar) with Person-B after going to the toilet and not washing hands
- Person-A masturbates in Person B's room/office. Person-B doesn't find out.
- Person-A has sex with somebody in Person-B's bed (they don't find out)
- Person-A uses Person-B's Bible (or other religious text) to clean up vomit
- Person-A suggests to Person-B that the two of them go through the Bible, make a list of acts that the Bible has deemed disgusting or impure, and then work together to systematically commit each act as an interesting experiment

SUPPLEMENTARY MATERIALS B:

Moral foundations violations used in Study 3

Care:

- Person-A places a pin on Person-B's chair (Person-B never finds out it was Person-A)
- Person-A is upset at Person-B and so secretly gives Person-B food that he/she is mildly allergic to
- Person-B has a bad headache and asks for a Tylenol. Person-A secretly gives Person-B a placebo instead
- During a local fundraiser softball game, Person-A throws the ball hard at Person-B and makes it look like an accident
- Person-A doesn't help Person-B when he/she falls over and is slightly hurt

Fairness:

- Person-A cheats in a game of cards played with Person-B for a small amount of money
- Person-A purchases food with Person-B and eats more than an even share
- Person-A borrows \$20 from Person-B's bag without asking them
- Person-A borrows \$50 from Person-B and forgets to pay them back
- Person-A lends Person-B money, but receives back more than what was lent, and forgets to tell Person-B they've given back too much

Loyalty:

- Person-A snitches on Person-B after he/she has committed a minor offence
- Person-A badmouths Person-B behind his/her back
- Person-A provides help to Person-B's business rival
- Person-A turns on Person-B when he/she is in trouble
- Person-A sides with another person in an argument, even though he/she barely knows the other person

Respect:

- Person-A makes a disrespectful hand gesture at Person-B

- Person-A rudely ignores Person-B's guidance while doing some work together, even though Person B clearly has more knowledge and experience regarding the work
- Person-A disrespects Person-B in front of others while Person-B is acting in some sort of leadership role
- Person-A is being a disrespectful guest in Person-B's office
- Person-A rudely heckles Person-B while he/she is giving a presentation

Purity:

- Person-A masturbates in Person-B's room/office
- Person-A invites Person-B to a performance art piece in which all participants have to act like animals for 30 minutes, including crawling around naked and urinating on stage
- Person-A's dog has recently passed away. When Person-B visits, Person-A has cooked the deceased dog to serve for lunch
- Person-A signs a piece of paper that offers to sell Person-B's soul, after they die, to whoever has the piece of paper
- Person-B has recently passed away. Person-A secretly urinates on Person-B's grave