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Moral Conviction: Another Contributor to Attitude Strength or Something More?

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Attitudes held with strong moral conviction (*moral mandates*) were predicted to have different interpersonal consequences than strong but nonmoral attitudes. After controlling for indices of attitude strength, the authors explored the unique effect of moral conviction on the degree that people preferred greater social (Studies 1 and 2) and physical (Study 3) distance from attitudinally dissimilar others and the effects of moral conviction on group interaction and decision making in attitudinally homogeneous versus heterogeneous groups (Study 4). Results supported the moral mandate hypothesis: Stronger moral conviction led to (a) greater preferred social and physical distance from attitudinally dissimilar others, (b) intolerance of attitudinally dissimilar others in both intimate (e.g., friend) and distant relationships (e.g., owner of a store one frequents), (c) lower levels of good will and cooperativeness in attitudinally heterogeneous groups, and (d) a greater inability to generate procedural solutions to resolve disagreements.

Keywords: attitude strength, moral conviction, social distance

> We have no government armed with power capable of contending with human passions unbridled by morality . . .
>
> —John Adams

Events like the September 11, 2001, terrorist attacks on the World Trade Center and the Pentagon naturally give rise to questions about what could possibly motivate anyone to embark on such an incredibly horrific mission. These attacks involved not only a willingness to be a martyr for one's cause but also a willingness to take the innocent lives of untold numbers of others. Clearly, the people who were at the front lines of this attack had strong beliefs about their cause. Although one can discount the strength of these beliefs and the actions done in their name as being the exclusive province of radical extremists, a strong and morally loaded antiwest antipathy was also common among the presumably less radicalized general population. For example, a Gallup poll of nine Muslim countries (December 2001–January 2002) found that 67% of the respondents said the 9/11 attacks were morally justified (George, 2002).

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Current social psychological theorizing posits that certain beliefs and attitudes have the power they do because they are more extreme, important, and certain than other attitudes (see Petty & Krosnick, 1995, for a review). We propose that attitudes are sometimes rooted in moral convictions and that attitudes rooted in moral conviction (what we call *moral mandates*; see Skitka, 2002; Skitka & Houston, 2001; Skitka & Mullen, 2002b) are different from attitudes that are not rooted in moral conviction. To test this idea, we conducted four studies that examined whether strength of moral conviction predicted unique variance beyond other indices of attitude strength, such as attitude extremity, importance, certainty, and centrality, on a number of interpersonal measures. Before turning to the specifics of these studies, we first review (a) current attitude strength theory and research, (b) the theoretical rationale for why attitudes rooted in moral conviction might be different than their equally strong but nonmoral counterparts, and (c) the possible interpersonal consequences of attitude dissimilarity and why these might be even stronger when attitude dissimilarity is related to moral as compared with equally strong but nonmoral attitudes.

Attitude Strength

Although there is no single agreed on operationalization or definition of attitude strength, most researchers agree that strong attitudes should be more durable over time, resistant to change, impactful on information processing and judgment, and likely to act as behavioral guides than their weaker cousins (Krosnick & Petty, 1995). The most frequently studied features of attitude strength are attitude extremity, importance, certainty, centrality, and accessibility.

Extremity refers to the extent that an attitude deviates from neutrality on an evaluative continuum that ranges from strongly negative to strongly positive, with a neutral midpoint (e.g., Abelson, 1995; Judd & Brauer, 1995). Attitude importance is the

subjective significance people attach to a given attitude (e.g., Boninger, Krosnick, Berent, & Fabrigar, 1995), and attitude certainty refers to the degree that people feel sure about their position on an issue (e.g., Gross, Holtz, & Miller, 1995). Attitude centrality refers to how much a given attitude is rooted in people's sense of identity and therefore how interconnected a given attitude is with other attitudes and beliefs (e.g., Judd & Krosnick, 1982). Finally, attitude accessibility refers to how easily an attitude object and its evaluation can be retrieved in memory (e.g., Fazio, 1986).

Although these aspects of attitude strength are often presumed to measure the same latent construct, correlational studies generally find only low to moderate positive correlations among them (Krosnick, Boninger, Chuang, Berent, & Carnot, 1993; Krosnick & Petty, 1995; Raden, 1985). For example, using confirmatory factor analysis that controlled for random and systematic measurement error, Krosnick et al. (1993) tested multiple possible models and found no single factor structure fit the data well. They therefore concluded that different aspects of attitude strength, such as importance, certainty, and so forth, are best thought of as distinct contributors to the strength of an attitude. Consistent with this idea, considerable evidence indicates that stronger attitudes—almost irrespective of how they are operationalized—are in fact more enduring and potent than their weaker counterparts (see Eagly & Chaiken, 1993, for a review). In summary, researchers have identified a number of features of attitude strength but have not explored whether moral conviction may be one of them or whether attitudes tied to moral conviction differ from otherwise equally strong attitudes.

There is, however, some scattered evidence in the attitude literature that is consistent with the moral mandate hypothesis that predicts that attitudes tied to moral convictions may either be different from other kinds of attitudes or have stronger associations with behavior than do nonmoral attitudes. For example, early work on the semantic differential found that evaluations included both attitudinal and morally evaluative components (Komorita & Bass, 1967; Osgood, Suci, & Tannenbaum, 1957). Moreover, a number of studies have found that adding assessments of moral obligation to the variables specified by the theory of planned behavior increases attitude–behavior correspondence (e.g., Gorsuch & Ortberg, 1983; Ortberg, Gorsuch, & Kim, 2001; Raats, Shephard, & Sparks, 1995; however, see Lam, 1999). Morally based opposition to various policies is also an important predictor of political activism. For example, moral opposition to the nuclear bomb emerged as a discriminator of those who did versus did not actively campaign for political candidates who took a stand on this issue, trumping other possible predictors like fear or having activist friends (Waldron, Baron, Frese, & Sabini, 1988; see also Keniston, 1973; Milbrath & Goel, 1977; Tyler & McGraw, 1983, for related research). In a related vein, persuasive messages that activated concerns with people's sense of moral self led to higher levels of donating blood than did exposure to a fear appeal, a combined moral and fear appeal message, or no message (Ferrari & Leippe, 1992). Each of these relatively isolated examples is consistent with the prediction that attitudes based on moral convictions may have higher action potentials than attitudes that reflect nonmoral tastes, preferences, or social conventions, however strong these may be.

Moral Conviction

Moral conviction refers to a strong and absolute belief that something is right or wrong, moral or immoral (Skitka, 2002; Skitka & Mullen, 2002b). People in all cultures possess these beliefs, although the objects of the convictions may be culturally or contextually variable (Shweder, 2002).

Moral philosophers argue that moral convictions are experienced as sui generis, that is, as unique, special, and in a class of their own (e.g., Boyd, 1988; McDowell, 1979; Moore, 1903; Sturgeon, 1985). What makes moral conviction different or special relative to similarly strong but nonmoral beliefs or attitudes? Moral philosophers nominate a number of possible distinguishing mental states or processes associated with the recognition of something as moral, including (a) universalism; (b) the status of moral beliefs as factual belief, compelling motive, and justification for action; and (c) emotion.

Universalism

Philosophical definitions of morality often include a perception of universality as a distinguishing feature of what people perceive as moral as compared with nonmoral beliefs (Hare, 1981; Kant, 1786/1947). Haidt, Rosenberg, and Hom (2003) explained this idea as follows:

> If one says, 'I value gender equality, but others need not value gender equality,' then gender equality is a matter of personal taste. If one says, 'We in our culture value gender equality, but people in other cultures need not value gender equality,' then one is treating gender equality as a social convention. However, if one sees gender equality as a moral good or a moral truth, then one is committed to saying, 'I value gender equality, and everyone else should too, even in other cultures.' (pp. 6–7)

Attitudes rooted in moral conviction therefore are perceived as ones that transcend the boundaries of persons and cultures. They are perceived as terminal absolutes rather than personal preferences and are felt to apply across persons and contexts.

The notion that there are important psychological distinctions among preferences, conventions, and morals is not a new one (see Turiel, 1998, for a review). A large body of research has found that people see the domains of preferences, conventions, and morals as psychologically distinct (Turiel, 1983). Moreover, the ability to discern differences between tastes, conventions, and moral imperatives emerges quite early. Children by the age of 4 can easily make these kinds of domain distinctions and use them to understand their own and others' behavior (Nucci & Turiel, 1978; Smetana, 1981).

We do not mean to say by this description that we necessarily believe that there are universally true moral standards. Rather, it appears that people experience their moral convictions as beliefs that everyone would or could be persuaded to share, in part because moral convictions are experienced as matters of fact, rather than matters of preferences, tastes, or conventions.

Moral Convictions as Experiences of Fact

Part of what distinguishes moral convictions from otherwise strong but nonmoral attitudes appears to be that moral convictions are experienced as facts about the world. People seem to be

intuitive cognitivists who experience moral judgments much like scientific judgments: Good and bad are experienced as objective characteristics of phenomena and not just as verbal labels that people attach to feelings (Shweder, 2002).

Unlike other facts, moral convictions are also experienced as motivational guides (a Humean paradox; see Mackie, 1977; Smith, 1994, for detailed discussions). Recognition of fact is generally presumed to be independent of any kind of motivational force (Hume, 1888/1968). For example, recognition that water molecules are two parts hydrogen and one part oxygen has no motivational corollary or mandate. Recognition that trees photosynthesize or that 13 is a prime number inspires no action, or justification for action. In contrast, a judgment that voluntarily terminating a pregnancy (or alternatively, interfering with a woman's right to choose whether to sustain a pregnancy) is fundamentally wrong has an inherent motivational quality—it carries with it an "ought" or "ought not" that can motivate subsequent behavior. The presence or absence of another motivation (e.g., hunger, self-interest) has little impact on the action potential of moral conviction—moral convictions are sufficient in and of themselves as motives that can direct what people think, feel, or do. Moreover, not only does moral conviction motivate one's response or subsequent actions, but also it provides an inherent justification for one's response or actions. People tend to express their attitudes about issues they see in moral terms, such as abortion, incest, or cannibalism, by saying "It is just wrong!" The question "Why is it wrong?" in these cases will be perceived as an odd question: The answer that it is simply wrong—fundamentally wrong, very wrong, even monstrous—is the justification for one's position (Prinz, in press). Therefore, moral convictions, unlike otherwise strong but nonmoral attitudes, appear to be experienced as a unique combination of factual belief, compelling motive, and justification for action.

Emotion

A third reason why moral convictions might be different from otherwise strong but nonmoral judgments is rooted in the mundane observation that moral judgments are often accompanied by strong emotions. Nonmoral attitudes may also have affective components, but the intensity and form of emotional response seems to be pale in comparison to the emotions that can accompany moral convictions (Arsenio & Lover, 1995, 1997). For example, the feelings people experience when they think about child molesters, racial profiling, abortion, or a host of other morally charged issues appear to be quite different than the kinds of emotions they feel when they think about nonmoral attitude objects such as their favorite sports team or their love of the arts.

Theorists have nominated a number of emotions as being particularly likely to be associated with moral judgments (Haidt, 2003; Shweder, 2002). For example, fear is associated with issues of safety and harm and can motivate people to eliminate the conditions that produce it. Anger and indignation are closely tied to issues of fairness, equity, and just dessert that can lead people to be motivated to eliminate injustice from the world. Love and compassion are associated with the desire to take care of the needy and vulnerable. Similarly, guilt, shame, and disgust are each thought to be closely connected to judgments that attitude objects are moral or immoral and similarly can be strongly associated with morally motivated behavior.

All leading theories of moral judgment predict a strong association between morality and affect. At one extreme, Haidt's (2001) social intuitionist model of moral judgment suggests that moral judgment is an affective phenomenon and that cognition comes into play only as post hoc justifications for feeling states. However, even primarily rationalist theories of morality, including Kohlberg's (1984) cognitive developmental theory and domain theory, acknowledge that moral judgments are affectively laden (Nucci, 2001). For example, Kohlberg argued that people must be emotionally invested in standards if they are to take moral action. Rational theories of moral judgment, however, tend to emphasize the notion that emotional reactions such as indignation or guilt gain their force through cognitive appraisal conditions such as threat to safety or injustice. Negative feeling states, for example, are not thought by the rationalists to be sufficient to label something as immoral or to compel behavior; cognitive appraisals are required as well.

Although current attitude theory posits that attitudes are affective, attitude theory focuses primarily on tastes or global evaluative judgments and little on ties of attitudes to discrete emotions, such as shame, guilt, repugnance, or indignation. In contrast, theories of moral judgment posit that moral judgments are motivating in large part because they are strongly associated with (or arise from) feelings such as disgust, shame, guilt, or indignation. Therefore one way that moral convictions would appear to differ from otherwise strong but nonmoral attitudes would be the type and magnitude of affect associated with them.

Although we have reviewed a number of reasons why strong attitudes and moral convictions might differ, current attitude theory and research implicitly define moral issues as potentially special only because people are more likely to have stronger attitudes about them than about other attitude objects. In short, current social psychological theorizing seems to suggest that moral conviction and strong attitudes or preferences reflect the same latent construct, to the extent that moral conviction matters at all. Consistent with this idea, few if any moral convictions are not also strong attitudes—that is, moral mandates are likely to share the defining structural markers of attitude strength, such as attitude extremity, certainty, centrality, and importance (see Petty & Krosnick, 1995). That said, one can imagine several examples of strong attitudes that are unlikely to be moral convictions. For example, musical tastes or band preferences, fans' feelings about their favorite sports teams, feelings toward some brands, or feelings about friends or one's career choice can each be strong attitudes but are unlikely to be experienced as beliefs about right or wrong, moral or immoral. Moreover, attitudes about these objects are unlikely to be experienced as universal truths, whereby someone who does not share them would also be perceived as "wrong" or "immoral." One can still be a friend with someone who does not share one's strong preferences; one can even be a friend with someone who adheres to different cultural norms or conventions. However, friendship seems much less likely with someone who does not share one's core beliefs about right and wrong.

It is our position that moral mandates cannot be reduced to structural features of attitudes. Yes, virtually all attitudes held with strong moral conviction will share the structural characteristics of attitude strength: They will also be more extreme, certain, important, central, and so forth. However, the moral mandate construct is not redundant with these structural aspects of procedures, be-

cause not all extreme, certain, important, and central attitudes will be moral mandates. In short, moral mandates theoretically represent something more than what can be captured by structural features of attitudes.

As a corollary to the notion that moral mandates differ from other strong but nonmoral attitudes, we emphasize that the presence or absence of moral conviction about a specific issue is likely to be relatively idiosyncratic. That is, some issues on average may be more likely to be held with moral conviction, but whether an individual views a given issue in moral terms will depend on the individual's point of view. For example, some people may oppose the war in Iraq because they think it is morally wrong, whereas others may oppose it because they see domestic problems as more pressing than foreign ones or think the money being spent in Iraq would be better spent elsewhere. In short, some people may oppose or support the current war in Iraq because of moral convictions, whereas others may oppose or support the war for any number of nonmoral reasons. In summary, whether an issue will be seen as one tied to moral conviction will vary across persons.

It is also important to point out that even though moral convictions (and therefore moral mandates) are likely to have close associations with moral values (e.g., freedom, equality, the sanctity of life) moral mandates are not values per se. First, most values define end states or goals, such as achievement (e.g., Rokeach, 1973), and have little to do with notions such as right or wrong, moral or immoral. Values often reflect preferences or conventions and only sometimes reflect moral concerns. Second, moral mandates and values differ in level of abstraction. Values are abstract and can apply to multiple attitude objects, whereas moral mandates are selective, concrete, and object-specific expressions of commitments to a core moral value or values. Values would also seem to be too abstract to determine moral decisions or reactions in specific cases or in identifying which specific cases people will respond to with moral conviction.

In summary, moral mandates appear to be more idiosyncratically expressed than would be predicted by value adherence alone. For example, some people may deeply value the sanctity of life and see their commitment to this value as a reflection of themselves as a decent and moral person. They may selectively express this commitment through a pro-life position on abortion. Having a moral position could well be psychologically sufficient for people to persuade themselves that they are authentic moral beings; so, they may not then feel any need to also develop an ideologically consistent position, for example, on the death penalty. Consistent with this idea, studies find only weak correlations between opposition to abortion and a more generalized pro-life stance on issues such as capital punishment or voluntary euthanasia (e.g., Darwin, 1982; Lester, 2000). Also consistent with the notion that moral mandates are selective expressions of moral values is the finding that most people are cognitive misers (Fiske & Taylor, 1996) who rarely have perfectly constrained ideological belief systems (Converse, 1964). Therefore, even if moral mandates are rooted in commitments to specific values, values are likely to be imperfect predictors of the issues about which people develop moral mandates. One reason why there are often gaps between commitments to abstract universal values and individual expressions of moral conviction may be because there are so many universal abstract moral values (e.g., justice, loyalty, liberty) that they conflict and cannot be simultaneously maximized. The concomitant emotions people experience in connection with moral convictions may help signal which values are most important to maximize in specific contexts.

In summary, there are a number of reasons to believe that attitudes held with moral conviction might differ from otherwise strong but nonmoral attitudes in several ways. The studies we report here tested two hypotheses that can be derived from the above discussion about the ways that attitudes held with moral conviction might differ from otherwise strong but nonmoral attitudes: the impact and universality hypotheses. The impact hypothesis proposes that attitudes held with moral conviction will have more impact—that is, will explain more variance in attitude relevant variables—than will otherwise strong but nonmoral attitudes. In short, this hypothesis suggests that assessing the degree that attitudes are rooted in moral conviction will yield increases in variance explained in attitudinally relevant dependent variables, even after one has controlled for differences in structural aspects of attitudes, such as extremity, importance, certainty, or centrality. The universality hypothesis proposes that people will be more intolerant of attitude dissimilarity when it is tied to an attitude held with moral conviction than when it is tied to an attitude that is otherwise strong but not held with moral conviction. Specifically, people should be more likely to reject and less likely to get along well with those who do not share their moral convictions relative to those who do not share their similarly strong but nonmoral attitudes.

Attitude Dissimilarity

Previous research has found that attitude similarity relates in important ways to attraction and cooperation (Byrne & Clore, 1970; Byrne & Nelson, 1965; Heider, 1958; Newcomb, 1961, 1978). Theorists have recently argued that it may not be that similarity attracts but rather that dissimilarity repels (e.g., Pilkington & Lyndon, 1997; Rosenbaum, 1986; Singh & Ho, 2000; Singh & Teoh, 1999). Moreover, there are reasons to believe that attitude similarity and dissimilarity effects may be amplified when people are dealing with others who are similar or dissimilar with respect to a morally mandated rather than a nonmorally mandated attitude. Research reveals that people who challenge or disagree with perceivers' cultural or moral worldviews arouse more than just mild dislike. People who violate or challenge perceivers' moral values are actively vilified and can and often do become the targets of aggression (Solomon, Greenberg, & Pyszczynski, 1991; Tetlock, Kirstel, Elson, Green, & Lerner, 2000). What is less clear, however, is whether these effects would hold if one controlled for indices of attitude strength, such as attitude extremity, importance, certainty, or centrality.

The Goal of the Present Research

The goal of the four studies presented here is to extend previous research by testing the universality and impact predictions of the moral mandate hypothesis in a number of different interpersonal contexts. Each of the four studies was based on the premise that people should be less likely to get along well with those who do not share their moral convictions than with those who do not share their otherwise strong but nonmoral attitudes. In Studies 1 and 2 we tested this hypothesis by exploring whether people prefer

greater social distance from attitudinally dissimilar others when the attitude domain was held with high rather than low moral conviction. In Study 3 we extended the notion of distance to explore whether people maintain greater physical distance between themselves and an attitudinally dissimilar other when the dissimilarity was on an issue held with high rather than low moral conviction. In Studies 1–3, we statistically controlled for various indices of attitude strength to test whether moral conviction had a unique effect on social and physical distance from attitudinally dissimilar others, whereas in Study 4 we experimentally controlled for differences between moral mandates and strong attitudes. Specifically, in Study 4 we experimentally controlled whether groups discussed a moral mandate, a nonmoral mandate, or a strong attitude in attitudinally homogeneous or heterogeneous groups to allow comparisons of both group climate and group decision making.

Study 1

Method

Participants

Potential participants were approached in public places (a large midwestern airport,[1] a bus terminal, and an Amtrak station) and were asked to complete a brief questionnaire in exchange for a candy bar or a pen. No mention of the content of the questionnaire was made. Interested participants were given a cover letter on university letterhead that indicated that the goal of the study was to explore different kinds of attitudes and that assured participants that their responses would be anonymous and confidential. To avoid potential bias, experimenters approached all people in a given area and individually invited them to participate. Ninety-one people agreed to participate (a 70% cooperation rate). Participants were 53% female, ranged in age from 19 to 81 ($M = 46.17$, $SD = 15.70$), and hailed from 24 different states within the continental United States.

Measures

Participants were asked to provide an open-ended response to the question "What do you think is the most important problem facing this country today?" and if they listed more than one, to identify which of those listed they felt was the most important. Participants were instructed to keep this most important issue in mind when answering a number of subsequent questions.

Attitude strength. To assess attitude strength, the questionnaire asked how strongly participants felt about their identified problem (extremity), how important it was to them personally (importance), and how much it was related to how they see themselves as a person (centrality) on 5-point radio button[2] scales with the point labels of *not at all*, *slightly*, *moderately*, *much*, and *very much*.

Moral conviction. Moral conviction was assessed with a single-item measure, specifically, "How much are your feelings about _____ connected to your core moral beliefs or convictions?" on a 5-point radio button scale with the point labels of *not at all*, *slightly*, *moderately*, *much*, and *very much*, where the blank was filled in with the participant's self-reported most important issue.

Social distance. Our measure of social distance was an adaptation of measures developed by Byrnes and Kiger (1988) and Crandall (1991). Participants were asked the degree that they agreed or disagreed with different completions to the stem "I would be happy to have someone who did not share my views on (their identified most important issue) . . ."; sentence completions were "as President of the U.S.," "as Governor of my state," "as a neighbor," "to come and work at the same place I do," "as a room mate," "to marry into my family," "as someone I would personally date," "as my personal physician," "as a close personal friend," "as the owner of a store or restaurant I frequent," "as the teacher of my children," and "as my spiritual advisor." Participants responded on 7-point radio button scales with the point labels of *very much agree*, *moderately agree*, *slightly agree*, *uncertain*, *slightly disagree*, *moderately disagree*, and *very much disagree*. Scores on these items were averaged to create a global index of social distance, with higher values reflecting greater social distance. This scale had a Cronbach's alpha of .95 with this sample.

Level of relationship intimacy. Despite creating a reliable scale, the relationships included in the social distance measure varied in their relative degree of intimacy. To establish which kinds of relationships are likely to be perceived as more intimate than others, we asked a sample of 75 students to rate each relationship included on the social distance measure on a 7-point radio button scale with the point labels of *very close*, *moderately close*, *slightly close*, *uncertain*, *slightly distant*, *moderately distant*, and *very distant*. A one-way within-subjects analysis of variance (ANOVA) identified that these relationships were in fact seen as differentially intimate, $F(11, 319) = 39.72$, $p < .01$, $\eta^2 = .58$. Tukey comparisons revealed two major categories of relationships. More intimate or closer relationships included friends, people one dates, people who marry into one's family, teachers, roommates, and coworkers. More distant relationships were neighbors, one's doctor, one's spiritual advisor, the owner of stores one frequents, the President of the United States, and the governor of one's state.

Two additional measures of social distance were therefore calculated. The social distance ratings related to attitudinally dissimilar others in the prospective relationships of friends, people one dates, people who marry into one's family, teachers, roommates, and coworkers were averaged to create a measure of social distance in prospectively intimate relationships. The social distance ratings related to neighbors, one's doctor, one's spiritual advisor, the owner of stores one frequents, the President of the United States, and the governor of one's state were averaged to create a measure of social distance in prospectively distant relationships.

Results

Participants generated a wide variety of problems that they thought were facing the country today. The most frequently cited problem was education (mentioned by 19% of the sample), followed by concerns with health care and the natural environment, which garnered 8% of the mentions each. Of interest was the finding that 47% of the respondents indicated that the issue they identified was strongly connected to their core moral beliefs and convictions (i.e., endorsed a 5 on a 1 = *not at all* to 5 = *very much* scale), and 81% reported that their feelings about the issue were moderately or very connected to moral conviction. In short, when asked to generate an important issue, people tended to spontaneously think of one that they saw as connected to their core moral convictions.

As can be seen in Table 1, reporting strong moral conviction about the issue that people nominated as being the most pressing one facing the nation was positively correlated to being female and with measures of attitude strength, specifically, attitude extremity, importance, and centrality. In addition, markers of attitude strength and moral conviction were each associated with greater social

[1] These data were collected in August, 2001, before security measures prevented accessing airport gates.

[2] The term *radio button scale* is being used to describe response scales that provided participants with a series of "buttons" or "bubbles" with appropriate point labels that could be colored in or marked with an X.

Table 1
Correlations Between Gender, Age, Attitude Extremity, Importance, Centrality, Moral Conviction, and Social Distance (Study 1)

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9
1. Gender	1.53	0.50	—								
2. Age (years)	46.17	15.71	.12	—							
3. Extremity	4.37	0.91	−.04	.09	—						
4. Importance	4.16	1.08	.09	.01	.59**	—					
5. Centrality	3.90	1.17	.07	−.14	.19	.40**	—				
6. Moral conviction	4.12	1.13	.24*	−.02	.26*	.50**	.42**	—			
7. Social distance	4.63	1.44	.15	.05	.34**	.21*	.20	.32**	—		
8. Social distance in intimate relationships	4.39	1.60	.17	.06	.28*	.12	.15	.31**	.97**	—	
9. Social distance in distant relationships	4.96	1.42	.16	.05	.37**	.29**	.20	.27**	.92**	.81**	—

Note. Gender was scored as 1 = male and 2 = female.
* $p < .05$. ** $p < .01$.

distance from an attitudinally dissimilar other (note that the effect for attitude centrality was only marginally significant).

Explaining Preferred Social Distance From an Attitudinally Dissimilar Other

To gain a better grasp on whether moral conviction explained unique variance in social distance after controlling for other variables, we conducted a number of hierarchical multiple regressions. A block that included gender and age was entered first, followed by a second block that included attitude extremity, importance, and centrality and finally a third block that entered strength of moral conviction. As can be seen in Table 2, gender and age did not account for any significant variance in social distance from an attitudinally dissimilar other, $R^2 = .02$, $F(2, 88) = 1.06$, *ns*. The block that included indices of attitude strength, however, did explain significant unique variance in social distance, $R^2_{\text{change}} = .12$, $F(3, 85) = 3.97$, $p < .05$, due primarily to the effect of attitude extremity alone (importance and centrality did not explain significant unique variance in social distance; see Table 2 for more detail). Consistent with the moral mandate hypothesis, moral conviction also explained unique variance in social distance even after gender, age, and indices of attitude strength were controlled in earlier steps, $R^2_{\text{change}} = .06$, $F(1, 84) = 3.89$, $p < .05$. Participants whose self-selected issue was more deeply tied to moral convictions preferred more social distance from an attitudinally dissimilar other, even when gender, age, and features of attitude strength—extremity, importance, and centrality—were controlled.[3]

Table 2
Standardized Regression Coefficients of Predictors of Preferred Social Distance From an Attitudinally Dissimilar Other (Study 1)

Predictor	Overall preferred social distance (standardized regression coefficients)
Block 1	
Gender	.11
Age	.03
Block 2	
Attitude extremity	.33**
Attitude importance	.16
Attitude centrality	.09
Block 3	
Moral conviction	.24*

Note. $R^2 = .18$, $p < .01$.
* $p < .05$. ** $p < .01$.

Testing the Universality Prediction

In addition to testing whether moral conviction explained unique variance in social distance after controlling for demographics and other aspects of attitude strength, we also tested the universality prediction. There are at least two approaches one could use to test the universality prediction in this context. First, one might predict that indices of attitude strength would correlate more strongly with preferred social distance in intimate than distant relationships, whereas moral conviction would be equally associated with social distance in both prospectively close and distant relationships (the correlational approach). Another way to test the universalism hypothesis is to explore whether preferred social distance from an attitudinally dissimilar other would be invariant across the degree of intimacy of the relationship when moral conviction was high. We also predicted that when moral conviction was low, people would be more tolerant of dissimilarity overall, but especially so in more distant than intimate relationships (a test of moderated differences).

The correlational approach. As can be seen in Table 1, the correlational predictions of the universalism hypothesis were only partially supported. Consistent with predictions, moral conviction was significantly correlated with preferred social distance in prospectively intimate and distant relationships. However, attitude extremity also correlated with preferred social distance across both

[3] Other analysis indicated that the effect of attitude extremity was still significant and the effects of importance and centrality were still nonsignificant, after we first controlled for moral conviction.

Table 3
Means and Standard Deviations of Preferred Social Distance From Attitudinally Dissimilar Others (Studies 1 and 2)

Strength of moral conviction	Prospective relationship: Intimate (e.g., "Would be happy to be friends with.") *M*	*SD*	Prospective relationship: Distant (e.g., "Would happy to have as the owner of a store one frequents.") *M*	*SD*
Study 1: Prospective attitude dissimilarity on participant's self-nominated most important issue facing the nation				
High	5.07_a	1.59	4.87_a	1.41
Low	4.57_b	1.37	4.18_c	1.49
Study 2: Prospective attitude dissimilarity on experimenter provided issues				
High	5.27_a	1.70	4.94_a	1.84
Low	4.15_a	1.23	3.75_b	1.33

Note. Means with common subscripts within studies were not significantly different at $p < .05$. Higher scores reflect higher levels of disagreement with the notion that one would be happy to have a given relationship with an attitudinally dissimilar other.

intimate and distant relationships, and attitude importance was related to preferred social distance in distant but not intimate relationships. Finally, attitude centrality did not correlate with preferred social distance in either intimate or distant relationships.

The moderated difference approach. A within-subjects ANOVA that compared the preferred social distance from attitudinally dissimilar others as a function of the degree of relational intimacy indicated that participants were more likely to reject attitudinally dissimilar others in intimate ($M = 4.80$, $SD = 1.52$) than more distant ($M = 4.51$, $SD = 1.40$) relationships, $F(1, 89) = 11.54$, $p < .01$, $\eta^2 = .11$. An analysis of covariance (ANCOVA) that included attitude extremity, importance, centrality, and moral conviction as covariates of the relationship intimacy effect revealed that strength of moral conviction interacted with relationship intimacy to affect social distance, $F(1, 83) = 5.28$, $p < .01$, $\eta^2 = .06$, whereas attitude extremity, $F(1, 83) = 0.00$, *ns*, $\eta^2 = .00$; importance, $F(1, 83) = 2.04$, *ns*, $\eta^2 = .01$; and centrality, $F(1, 83) = 0.75$, *ns*, $\eta^2 = .00$, did not.[4] As can be seen in Table 3, follow-up analysis indicated that participants whose self-nominated issue was held with low moral conviction (i.e., below the scale midpoint of moral conviction) more strongly rejected attitudinally dissimilar others in intimate than distant relationships, $F(1, 83) = 4.67$, $p < .05$, $\eta^2 = .09$. In contrast, participants whose self-nominated issue was held with high moral conviction (i.e., above the scale midpoint of moral conviction) were equally likely to reject attitudinally dissimilar others regardless of whether the relationship was intimate or distant, $F(1, 83) = 2.41$, *ns*, $\eta^2 = .03$.

In summary, results supported the universality prediction of the moral mandate hypothesis: Participants rejected those who did not share their moral beliefs, irrespective of whether the prospective relationship was intimate or distant when moral conviction was high. However, participants were more tolerant of differing points of view in general, and especially in more distant than intimate relationships, when thinking about someone who had a dissimilar attitude that was associated with low moral conviction.

Discussion

The results of Study 1 indicated that when people were asked to think about pressing issues of the day, they tended to spontaneously think of an issue closely tied to their core moral convictions. In addition, results of Study 1 revealed that moral conviction explained unique variance in reactions to attitudinally dissimilar others. In support of the universality and impact predictions of the moral mandate hypothesis, people reported that they would be less happy to have someone who did not share their view on the most important problem facing the nation today play a number of different roles in their lives, ranging from President to a possible roommate, when their feeling about the target issue was held with greater rather than less moral conviction. The effect of moral conviction on social distance was robust when we controlled for the effects gender, age, attitudinal extremity, importance, and centrality.

Tests of the universality hypothesis were consistent with predictions about the likely effects of moral conviction on preferred social distance from attitudinally dissimilar others in prospectively intimate and distant relationships but were only partially consistent with predictions with respect to the effects of attitude strength on reactions to dissimilar others. Consistent with the universalism hypothesis, participants' strength of moral conviction was associated with preferred social distance in prospectively intimate and distant relationships. In addition, the tendency to reject attitudinally dissimilar others when moral conviction was high generalized across the degree of relationship intimacy or distance. Participants were equally intolerant of the idea of having a relationship with an attitudinally dissimilar other across different degrees of relational intimacy or distance when the attitude dissimilarity was on an issue that the participant held with strong moral conviction. In contrast, participants were more tolerant of having a distant than an intimate relationship with an attitudinally dissimilar other, when the attitude dissimilarity was on an issue that the participant held with low moral conviction, results that held even when we controlled for attitude strength.

Correlational evidence, however, indicated that indices of attitude strength were not more strongly associated with social distance in prospectively intimate than distant relationships. Attitude extremity, like moral conviction, was associated with higher levels of preferred social distance in prospectively intimate or distant relationships, attitude importance was associated with preferred

[4] Some may recall that a usual statistical assumption in ANCOVA is that that group differences should be constant across all levels of the covariate (and conversely, that covariate effects should be constant across all levels of the grouping variable, i.e., the assumption of equal linear slopes). However, one need not make this assumption: One can test whether it holds for one's data (in fact, the SPSS software does so automatically when covariates are included in an ANCOVA). Finding Group × Covariate interactive effects reveals that one should not ignore their presence but instead requires examination of how the effects of the covariate are different at different levels of grouping variable (or vice versa; see Leon, Portera, Lowell, & Rheinheimer, 1998).

social distance in distant but not intimate relationships, and attitude centrality was unrelated to social distance in prospective intimate and distant relationships. In short, although the results clearly supported the notion that the strength of moral conviction associated with an attitude has interpersonal consequences, the results were more uneven with respect to the role that attitude strength plays in people's willingness to have a relationship with an attitudinally dissimilar other.

Study 2

Although the results of Study 1 provided an important test of whether moral mandates are different from otherwise strong but nonmoral attitudes, there are nonetheless a number of alternative explanations for the observed results. For example, our results may have underestimated the effects of attitude importance because we asked participants to nominate the most pressing issue facing the nation today. Therefore we may have had restricted range on attitude importance. To rule out this possibility, in Study 2 we explored preferred social distance from an attitudinally dissimilar other across a number of experimenter-selected rather than participant-nominated issues. In addition, although we controlled for attitude extremity, importance, and centrality in Study 1, we did not control for certainty. It is important to test hypotheses when controlling for alternative markers of attitude strength to be more fully confident in the unique effect of moral conviction. Therefore, in Study 2 we controlled for attitude certainty in addition to other markers of attitude strength.

In addition, the effect of moral conviction observed in Study 1 may have reflected political orientation or fervor, a variable that in turn may have shaped the issue people nominated when they thought about pressing national problems and, subsequently, their degree of preferred social distance from those who did not share their ideological beliefs. To rule out this possibility, in Study 2 we also controlled for perceivers' political orientation. A tendency to report that one's attitudes are rooted in moral conviction could also reflect stable individual differences in moral rigidity or in the tendency to see issues of the day in a moral light, rather than domain-specific moral conviction. To rule out this possibility in Study 2, we also controlled for individual differences in a generalized tendency to feel that one's attitudes are rooted in moral conviction. Specifically, participants were first asked to provide their attitudes about abortion, capital punishment, the legalization of marijuana, and building new nuclear power plants in the United States and were then asked to complete social distance measures with respect to attitudinally dissimilar others in each of these respective domains. Participants' average degree of moral conviction about, for example, capital punishment, the legalization of marijuana, or building new nuclear power plants could serve as a measure of generalized moral conviction when predicting people's preferred social distance from someone who does not share their view on abortion. Similar indices of generalized moral conviction (i.e., participants' average moral conviction for three issues) were used to predict preferred social distance from someone who did not share their view on each respective fourth issue. In summary, Study 2 was a conceptual replication of Study 1 and was designed to rule out a number of alternative explanations for the effects of moral conviction on preferred social distance from attitudinally dissimilar others.

Method

Participants

Similar to Study 1, potential participants were approached in public places (a large midwestern airport, bus terminal, or Amtrak station) and were asked to complete a brief questionnaire in exchange for a candy bar or a pen. No mention of the content of the questionnaire was made. Interested participants were given a cover letter on university letterhead that indicated that the goal of the study was to explore different kinds of attitudes and that assured participants that their responses would be anonymous and confidential. To avoid potential bias, experimenters approached all people in a given area and individually invited them participate. Eighty-two people (a 59% response rate) agreed to do so.[5] Participants were 52% female, ranged in age from 18 to 77 ($M = 40.51$, $SD = 15.95$), and hailed from 15 different states within the continental United States. Attitude domains were presented in random orders across participants.

Measures

Attitude extremity. Attitude extremity was assessed by asking participants the extent that they supported or opposed each of four issues (abortion, capital punishment, legalization of marijuana, and building new nuclear power plants) on bipolar 7-point radio button scales with the point labels of *strongly support*, *moderately support*, *slightly support*, *neutral or neither*, *slightly oppose*, *moderately oppose*, and *strongly oppose*. This scale was coded as ranging from −3 to +3.

Attitude importance. Attitude importance was assessed by asking participants how important or unimportant each issue was to them on a 7-point radio button scale with the point labels of *very important*, *moderately important*, *slightly important*, *uncertain*, *slightly unimportant*, *moderately unimportant*, and *very unimportant*. Responses to this item were reverse coded so that high scores reflected greater importance.

Attitude certainty. Finally, participants were asked how certain or uncertain they were about their position on each of the four issues on 7-point radio button scales with the point labels *very certain*, *moderately certain*, *slightly certain*, *neutral or neither*, *slightly uncertain*, *moderately uncertain*, and *very uncertain*. Responses to this item were reverse coded so that high scores reflected greater certainty.

Domain-specific moral conviction. Domain-specific moral conviction was assessed with the item: "My attitude about [legalized abortion/the death penalty/the legalization of marijuana/building new nuclear power plants] reflects something about my core moral values and convictions." Participants responded on a 7-point radio button scale with the point labels *very much agree*, *moderately agree*, *slightly agree*, *neutral or neither*, *slightly disagree*, *moderately disagree*, and *very much disagree*.

Generalized moral conviction. By collecting data with respect to several attitude domains, we could also estimate the degree that stable individual differences in the tendency to feel that one's attitudes are rooted in moral conviction might contribute to the finding that people prefer greater social distance from attitudinally dissimilar others. In addition to assessing domain-specific moral conviction people felt with respect to each issue we analyzed, we also estimated the degree of generalized moral conviction by averaging across the strength of moral conviction associated with each of the other issues. In other words, the average degree of moral conviction associated with people's attitudes about capital punishment, the legalization of marijuana, and nuclear power served as a measure of general rather than specific moral conviction when we attempted to predict preferred social distance from someone who did not share the perceiver's attitude on abortion. The average degree of moral conviction associated with people's attitudes about abortion, the legalization of marijuana, and nuclear power

[5] Response rates were probably lower for Study 2 than they were for Study 1 because the questionnaire was substantially longer.

similarly served as a measure of generalized moral conviction in equations designed to predict the preferred social distance from someone who did not share the perceiver's attitude about capital punishment, and so forth.

Social distance. We used the same measure of social distance as was used in Study 1. This scale had Cronbach's alphas that ranged from .94 to .96 across issues with the present sample.

Political orientation. Conover and Feldman (1981) argued that people's ideological identifications (i.e., "I am a liberal" or "I am a conservative") are derived primarily from whether they like or dislike liberals or conservatives (see also, Levitin & Miller, 1979; Sniderman & Tetlock, 1986), and therefore one way to measure political orientation is to assess people's relative like or dislike for these political entities. We asked participants four questions to tap their relative like or dislike of political conservatives, political liberals, Republicans, and Democrats (e.g., "How much do you tend to like or dislike . . .?"), using 100-point feeling thermometers (Knight, 1999). Political orientation was operationalized as the average difference between participants' dislike of political liberals and conservatives and their dislike of Democrats and Republicans.

Results

The results of Study 2 were organized into a number of subsections. First, we explored whether having a moral conviction about one issue was correlated with having a moral conviction on other issues. Next, we tested bivariate correlations across attitude domains to explore the degree that moral conviction was correlated with gender, age, political orientation, traditional markers of attitude strength, generalized moral conviction, and social distance. We then tested whether moral conviction explained unique variance in preferred social distance after controlling for gender, age, political orientation, generalized moral conviction, and indices of attitude strength. Finally, we tested the universalism hypothesis that people high in moral conviction would be equally intolerant of attitudinally dissimilar others in more distant and intimate relationships, whereas those low in moral conviction would be more tolerant of attitudinally dissimilar others in distant than intimate relationships across attitude domains.

Results of these analyses indicated that although there appears to be some contribution of stable individual differences in the tendency to feel that issues were related to moral conviction, domain-specific moral conviction explained unique variance in preferred social distance from attitudinally dissimilar others even after gender, age, political orientation, generalized moral conviction, and indices of attitude strength were controlled. Results of Study 2 also replicated the finding of Study 1 that indicated that moral conviction moderated people's willingness to accept more intimate versus distant relationships with attitudinally dissimilar others. More specific details follows below.

To What Extent Is Moral Conviction Stable Across Attitude Domains?

Although other research has found weak or no correlation in moral conviction across issues (Skitka, 2002), this analysis yielded a more mixed conclusion. The results of Study 2 indicated that the correlation between having a moral mandate on one issue and any other issue ranged from .23 (the correlation between the degree that people reported that their position on the legalization of marijuana and building nuclear power plants were rooted in moral conviction) to .41 (the correlation between moral conviction associated with capital punishment and building nuclear power plants). The correlations across issues were not so strong as to lead one to conclude that there were clear individual differences in the tendency to feel strong moral convictions across issues, but they were not sufficiently weak to eliminate this possibility as an alternative explanation for the effects of moral conviction on preferred social distance. Therefore, further analysis exploring whether domain-specific moral conviction explained unique variance in social distance after generalized moral conviction was controlled for was needed.

As can be seen in Table 4, domain-specific moral conviction was positively correlated with (a) age in two domains (capital punishment and nuclear power), (b) attitude extremity in all but one attitude domain (nuclear power), (c) attitude importance in two domains (capital punishment and legalization of marijuana), (d) attitude certainty in all but the nuclear power attitude domain, and (e) generalized moral conviction in three domains (all but abortion). Domain-specific moral conviction was uncorrelated with gender and political orientation of the perceiver across all four attitude domains.

Domain-specific moral conviction was also positively related to increased social distance in all the four attitude domains. There were few other predictors of social distance. Age was positively correlated with social distance for the marijuana and nuclear power plant contexts but not the abortion and capital punishment contexts. Only one index of attitude strength predicted social distance and then in only one context: Attitude extremity was positively related with social distance in the domain of capital punishment. The only other variable to be systematically related to social distance besides domain-specific moral conviction was generalized moral conviction. Generalized moral conviction was positively correlated with social distance in the abortion and capital punishment but not the legalize marijuana and nuclear power attitude domains.

Explaining Preferred Social Distance From Attitudinally Dissimilar Others

To test whether moral conviction explained unique variance in social distance after controlling for gender, age, political orientation, generalized moral conviction, and indices of attitude strength, we conducted a number of hierarchical regression analyses. Gender, age, political orientation, and generalized moral conviction were entered in Block 1 as control variables. Indices of attitude strength (i.e., attitude extremity, importance, and certainty) were entered in Block 2. Issue-specific moral conviction was then entered in a third step.

Results of this analysis supported the hypothesis that moral conviction would explain unique variance in social distance from an attitudinally dissimilar other, even after we controlled for gender, age, political orientation, generalized moral conviction, and indices of attitude strength (see Table 5 for more detail). Gender, age, and political orientation did not explain significant unique variance in social distance from attitudinally dissimilar others for any issue. Generalized moral conviction predicted greater social distance from an attitudinally dissimilar other in all but the capital punishment domain.

Adding the block that entered attitude extremity, importance, and certainty to predict social distance from attitudinally dissimilar others did not yield a significant R^2_{change} in the abortion, capital

Table 4
Correlations of Background Variables, Moral Conviction, and Indices of Attitude Strength in Different Attitude Domains (Study 2)

Variable	1	2	3	4	5	6	7	8	9	10	11
Abortion											
1. Gender	—										
2. Age	.08	—									
3. Political orientation	−.29*	.12	—								
4. Generalized moral conviction	−.03	.06	.11	—							
5. Attitude extremity	.02	.05	−.02	.11	—						
6. Attitude importance	.09	.05	.02	−.01	.05	—					
7. Attitude certainty	.12	.14	.01	.09	.47**	.26*	—				
8. Domain-Specific moral conviction	.08	.00	−.21	.18	.43**	.09	.29**	—			
9. Global social distance	−.07	.11	.10	.45**	.03	.03	−.01	.23*	—		
10. Social distance in intimate relationships	−.04	.05	.06	.50**	−.04	.00	.10	.34**	.88**	—	
11. Social distance in distant relationships	−.01	.15	.04	.30*	.05	.06	.04	.21*	.83**	.77**	—
Capital punishment											
1. Gender	—										
2. Age	.08	—									
3. Political orientation	−.29*	.12	—								
4. Generalized moral conviction	−.01	.08	.07	—							
5. Attitude extremity	.09	.19	−.15	.25*	—						
6. Attitude importance	.03	.32**	−.13	.21*	.37**	—					
7. Attitude certainty	.11	.14	−.09	.16	.37**	.57**	—				
8. Domain-specific moral conviction	.04	.26*	.01	.39**	.48**	.24*	.33**	—			
9. Global social distance	.08	.12	.08	.39**	.23*	.13	.13	.32**	—		
10. Social distance in intimate relationships	.12	.10	.02	.45**	.15	.10	.12	.26*	.86**	—	
11. Social distance in distant relationships	.07	.18	−.01	.36**	.31*	.17	.16	.26**	.86**	.82**	—
Legalize marijuana											
1. Gender	—										
2. Age	.08	—									
3. Political orientation	−.29*	.12	—								
4. Generalized moral conviction	.01	.12	−.01	—							
5. Attitude extremity	−.08	.26*	.08	.18	—						
6. Attitude importance	−.01	−.09	−.09	.23*	.22*	—					
7. Attitude certainty	.03	−.16	.01	.17	.19	.60**	—				
8. Domain-specific moral conviction	−.03	−.01	.02	.33**	.37**	.34**	.26*	—			
9. Global social distance	−.05	.26*	.10	.18	.18	.01	.14	.30**	—		
10. Social distance in intimate relationships	−.03	.12	.09	.42**	.17	.01	.17	.39**	.87**	—	
11. Social distance in distant relationships	−.08	.21*	.04	.28*	.16	.01	.21*	.23*	.79**	.81**	—
Build new nuclear power plants											
1. Gender	—										
2. Age	.08	—									
3. Political orientation	−.29*	.12	—								
4. Generalized moral conviction	.01	.12	−.01	—							
5. Attitude extremity	−.15	.06	.03	−.13	—						
6. Attitude importance	−.12	−.05	.03	.19	.27*	—					
7. Attitude certainty	−.21	−.01	.14	.05	.45**	.66**	—				
8. Domain-specific moral conviction	.16	.22	−.10	.30**	.27*	.15	.24*	—			
9. Global social distance	.16	.20*	.03	.14	.14	−.02	.11	.29**	—		
10. Social distance in intimate relationships	.13	.30*	.06	.19	.11	−.05	.05	.32**	.96**	—	
11. Social distance in distant relationships	.15	.19	−.01	.14	.27*	.08	.20	.26**	.94**	.82**	—

* $p < .05$. ** $p < .01$.

punishment, legalization of marijuana, or nuclear power attitude domains: $R^2_{change} = .03$, $F(3, 81) = 0.88$, $p = .45$; $R^2_{change} = .08$, $F(3, 81) = 2.65$, $p = .06$; $R^2_{change} = .06$, $F(3, 81) = 2.02$, $p = .12$; and $R^2_{change} = .03$, $F(3, 81) = 1.42$, $p = .23$, respectively. As can be seen in Table 5, attitude certainty was unrelated to social distance across attitude domains. Attitude extremity emerged as a significant unique predictor of social distance in the domains of capital punishment and legalization of marijuana, and attitude importance was a unique predictor of social distance in the nuclear power domain.

Of particular importance to the hypothesis that moral conviction represents something different from, and perhaps more than, other

Table 5
Standardized Regression Coefficients of Preferred Social Distance From an Attitudinally Dissimilar Other in Different Attitude Domains (Study 2)

	Standardized regression coefficients			
Predictor	Abortion	Capital punishment	Legalization of marijuana	Building new nuclear power plants
		Block 1		
Gender	−.05	.08	−.05	.17
Age	.08	.05	.15	.16
Political orientation	.03	.12	−.03	−.04
Generalized moral conviction	.40**	.19	.27*	.28*
		Block 2		
Attitude extremity	.16	.39**	.25*	.21*
Attitude importance	.06	.07	.24†	.36*
Attitude certainty	−.06	.04	.19	.20
		Block 3		
Moral conviction	.22*	31**	.27*	.46**

Note. Abortion, $R^2 = .24$, $p < .01$. Capital punishment, $R^2 = .27$, $p < .01$. Legalization of marijuana, $R^2 = .29$, $p < .01$. Building new nuclear power plants. $R^2 = .34$, $p < .01$.
† $p < .07$. * $p < .05$. ** $p < .01$.

indices of attitude strength, results indicated that adding moral conviction in a third step yielded a significant R^2 change in predicted social distance in all four issue domains. Specifically, adding moral conviction to the equation led to $R^2_{change} = .04$, $F(1, 73) = 3.79$ $p < .05$; $R^2_{change} = .06$, $F(1, 73) = 6.33$, $p < .05$; $R^2_{change} = .06$, $F(1, 73) = 5.67$, $p < .05$; and $R^2_{change} = .02$, $F(1, 62) = 8.93$, $p < .01$, in the respective attitude domains of abortion, capital punishment, legalized marijuana, and nuclear power.[6]

Further Tests of the Universality Prediction

We also tested whether the universality effect observed in Study 1 would replicate in the contexts of abortion, capital punishment, legalization of marijuana, and nuclear power.

The correlational approach. As can be seen in Table 4, correlational analyses were largely consistent with the universalism hypothesis. Specifically, as predicted, moral conviction was correlated with reported willingness to have relationships with attitudinally dissimilar others in both intimate and distant relationships across all attitude domains. Results were less consistent with predictions with respect to indices of attitude strength. Specifically, we predicted that attitude strength indices would be more likely to correlate with preferred social distance in intimate than distant relationships. Contrary to this prediction, indices of attitude strength were uncorrelated with preferred social distance in 21 out of 24 correlations tested. The three exceptions were that attitude certainty (in only the legalize marijuana attitude domain) and attitude extremity (in only the capital punishment and nuclear power domains) were associated with greater preferred social distance from attitudinally dissimilar others in distant relationships. In summary, results were consistent with predictions about the likely effects of moral conviction on reactions to attitudinally dissimilar others but showed only weak and then inconsistent results for the effects of attitude strength.

The moderated difference approach. We first tested the 2 (relationship type: intimate and distant) × 4 (attitude domain: abortion, capital punishment, legalization of marijuana, and nuclear power) mixed design ANOVA with the dependent variable of social distance. This analysis revealed that participants were overall more reluctant to have close than more distant relationships with attitudinally dissimilar others, $F(1, 198) = 12.68$, $p < .01$, $\eta^2 = .16$. There was not a significant main effect for attitude domain, $F(3, 198) = 2.12$, *ns*, $\eta^2 = .03$, or a significant Relationship Type × Attitude Domain interaction, $F(3, 198) < 1$, on social distance from attitudinally dissimilar others. Therefore, subsequent analysis was conducted collapsing across attitude domain.

Analysis turned next to exploring whether attitude extremity, importance, certainty, or moral conviction qualified the relationship type main effect by including these variables in an ANCOVA. Results of this analysis indicated that relationship intimacy interacted with strength of moral conviction to affect social distance ratings, $F(1, 59) = 7.82$, $p < .001$, $\eta^2 = .12$, but the relationship intimacy effect was not qualified by attitude extremity, importance, or certainty ($ps > .05$). Follow-up analysis of the Relation-

[6] Entering moral conviction into regression equations before indices of attitude strength revealed (a) significant effects for moral conviction in all domains, (b) no significant effects for indices of attitude strength in the abortion domain, (c) significant unique variance explained by attitude extremity but not attitude importance or certainty in the capital punishment and marijuana attitude domains, and (d) a unique effect for attitude importance in the nuclear power domain in preferred social distance from an attitudinally dissimilar other.

ship Type × Moral Conviction interaction indicated that when people held a given attitude with strong moral conviction (i.e., scored above the midpoint on moral conviction), they were equally likely to reject attitudinally dissimilar others in intimate and distant relationships, $F(1, 59) = 2.56$, *ns*, $\eta^2 = .02$. In contrast, participants with weak moral conviction (i.e., scored below the scale midpoint on moral conviction) on a given issue were more likely to reject having intimate than more distant relationships with attitudinally dissimilar others, $F(1, 59) = 9.83$, $p < .01$, $\eta^2 = .16$ (see Table 3 for additional detail). In summary, results supported the universality prediction: Participants with stronger moral convictions in a given attitude domain rejected attitudinally dissimilar others regardless of relationship type. In contrast, those with weaker moral convictions were more tolerant of attitudinally dissimilar others overall, and especially more accepting when thinking about attitudinally dissimilar others in more distant than intimate relationships.

Discussion

The results of Study 2 conceptually replicated the results of Study 1. People preferred more social distance from those who did not share their moral convictions, and the effects of moral conviction on social distance were robust even when we controlled for gender, age, political orientation, generalized moral conviction across issues, and attitude extremity, importance, and certainty. Results also supported the universality prediction of the moral mandate hypothesis. Specifically, people high in moral conviction in a given attitude domain were more intolerant of attitudinally dissimilar others—across all kinds of relationships—than those low in moral conviction. In contrast, people low in moral conviction in a given attitude domain were more accepting of attitudinally dissimilar others, especially when relationships were more distant (e.g., the owner of a store one frequents) than intimate (e.g., someone they might date). Other results indicated that attitude strength is generally unassociated with preferred social distance from attitudinally dissimilar others, and when effects are observed, they do not generalize across attitude issues.

Although the results of Studies 1 and 2 supported the hypothesis that moral conviction represents something more and apparently different from other dimensions of attitude strength, it would be useful to demonstrate (a) support for the moral mandate hypothesis when moral conviction associated with a given attitude object is measured separately from the dependent variable to rule out the possibility of demand characteristics and (b) that moral conviction has behavioral consequences in interpersonal interaction. The goals of Study 3 were therefore to test the moral mandate hypothesis using a less potentially reactive method and to test whether moral conviction influences interpersonal behavior.

In general, the more friendly a person feels toward another, the closer he or she will place themselves relative to them (Aiello & Cooper, 1972; Patterson, 1975). Other research indicates that people who want to be perceived as friendly also choose to maintain smaller physical distances from others than do those not given the impression management goal of friendliness (Patterson & Sechrest, 1970). Previous research has also demonstrated that seating distances are valid unobtrusive measures of prejudice (e.g., Campbell, Kruskal, & Wallace, 1966; Henderson-King & Nisbett, 1996; Macrae, Bodenhausen, Milne, & Jetten, 1994; Sechrist & Stangor, 2001). Therefore, the physical distance people maintain from an interaction partner provides information about how they feel about them. The greater the distance people place between themselves and someone else, the less likely they are to feel warm toward him or her. We therefore predicted that the distance of chair placement relative to a target with a known attitude (and whose attitude was kept constant across participants) would vary as a function of the Moral Conviction × Attitude Dissimilarity interaction, even when controlling for the effects of attitude dissimilarity as well as interactions of attitude dissimilarity and markers of attitude strength.

Study 3

Method

Participants

Participants were 80 introductory psychology students who received partial credit toward class requirements for their participation.

Procedure

Attitude extremity, importance, certainty, centrality, and moral conviction associated with participants' positions on abortion were assessed at the beginning of the semester as part of a mass testing procedure. Participants were recruited for the laboratory portion of the study between 3 and 10 weeks later. An experimenter who was blind to the participants' attitudes conducted the experimental sessions.

Participants reported to the laboratory sessions individually, where they learned that they would be participating in two unrelated studies during the laboratory session. After participating in a brief, unrelated study, participants were told that the second study was designed to investigate the effects of "inside information" on how people get to know each other. They were told that they were going to meet another student and complete an exercise that involved discussing their feelings about whether abortion should remain legal. Participants learned that only one discussion partner would receive inside information gleaned from mass testing surveys about who they were about to meet and that they had been randomly chosen to be the informed discussion partner. They then learned that the person they were about to meet held a strong pro-choice attitude on abortion (i.e., the target position was kept constant).

After receiving these instructions, participants were escorted to a different room for the discussion phase of the experiment. The discussion room was set up to appear that a second participant had been there but was not present at the time that the experimenter and the participant arrived (in reality there was not another participant). A gender-neutral book bag and jacket were placed on a chair near the center of the discussion room. A small 1-in. (2.54-cm) diameter "Pro-Child, Pro-Choice" pin was attached to the book bag. A row of chairs was aligned against the far wall of the room, roughly 10 ft (3.048 m) from and facing the chair with the book bag and jacket. No furniture or other items were between the row of chairs and the "other participant's" chair.

When the experimenter and participant entered the discussion room, the experimenter feigned surprise at the absence of the second participant and remarked that the other participant may have wandered off looking for a bathroom. The experimenter told the participant to pull up a chair from the row of chairs along the far wall while he or she went to make sure the other participant had not gotten lost. The experimenter then left the room.

Two minutes later, the experimenter returned to the discussion room and probed the now seated participant for suspicion about the procedure. The experimenter then measured the distance between the two chairs and fully debriefed and thanked the participant.

Measures

Attitude similarity–dissimilarity. Attitude similarity–dissimilarity was operationalized as participants' responses to the question, "Do you generally support or oppose allowing abortion to remain a legal option in the U. S.?" Participants responded using a 7-point radio button scale with the anchors *strongly support*, *moderately support*, *slightly support*, *neutral or neither*, *slightly oppose*, *moderately oppose*, and *strongly oppose*. Because the discussion partner was described as being strongly pro-choice, strong support on this item represented maximal similarity and strong opposition reflected maximal dissimilarity to the discussion partner. Attitude importance, certainty, and moral conviction were each measured using the same scales as described for Study 2.

Attitude centrality. Attitude centrality was measured with agreement with the statement that "My attitude about abortion is closely tied to how I see myself as a person" on a 7-point radio button scale with the point labels of *strongly agree*, *moderately agree*, *slightly agree*, *uncertain*, *slightly disagree*, *moderately disagree*, or *strongly disagree*. This item was reverse scored to reflect high levels of attitude centrality.

Physical distance. Physical distance was operationalized as the sum of the distances between the opposing legs of the target's chair and the participant's chair.

Table 6
Unstandardized Regression Coefficients of Physical Distance From a Pro-Choice Target (Study 3)

Predictor	Unstandardized regression coefficients
Block 1	
Attitude dissimilarity	3.48†
Block 2	
Attitude Dissimilarity × Importance	−5.58†
Attitude Dissimilarity × Certainty	−7.92†
Attitude Dissimilarity × Centrality	−7.34†
Block 3	
Attitude Dissimilarity × Moral Conviction	−12.03*

Note. $R^2 = .19$, $p < .01$.
† $p < .10$. ** $p < .01$.

Results

It was predicted that participants' placement of their chair relative to a pro-choice target would vary as a joint function of attitudinal dissimilarity and moral conviction, even after we controlled for attitude dissimilarity and the interaction effects of attitudinal dissimilarity with other dimensions of attitude strength. To test this hypothesis, we entered the effect of attitude dissimilarity in a first step, followed by interactions of attitude importance, certainty, and centrality with attitude similarity in a second block of a hierarchical regression equation.[7] The Attitude Similarity × Moral Conviction interaction was then entered in a third block to predict total physical distance.

Results supported the moral mandate hypothesis (see Table 6 for additional details). Attitude dissimilarity, $R^2_{change} = .01$, $F(1, 79) < 1$, and the block that entered the interactions of attitude dissimilarity with attitude importance, certainty, and centrality, $R^2_{change} = .06$, $F(1, 76) = 1.66$, *ns*, did not explain significant variance in the physical distance participants maintained between themselves and the target other. However, adding the Attitude Dissimilarity × Moral Conviction interaction did explain significant unique variance in total physical distance, even when we controlled for these other possible effects, $R^2_{change} = .12$, $F(1, 75) = 11.00$, $p < .01$.[8] Analysis of simple slopes indicated that as pro-choice participants' moral conviction increased, the degree of physical distance they placed between themselves and the pro-choice target decreased, $\beta = -.42$, $t(24) = 2.74$, $p < .01$. Conversely, as pro-life participants' moral conviction increased, so too did the physical distance that they placed between themselves and the pro-choice target, $\beta = .92$, $t(25) = 11.68$, $p < .01$ (see also Figure 1).

Discussion

Study 3 put the moral mandate hypothesis to a stringent test. Even with a highly variable behavior like chair placement, we found evidence that supported the moral mandate hypothesis. The Moral Conviction × Attitude Dissimilarity interaction explained unique variance in the distance that participants maintained from a target with a known position on abortion. Attitude dissimilarity by itself did not explain significant variance in physical distance nor did the interactions between attitude dissimilarity and attitude importance, certainty, or centrality. However, the interaction of attitude dissimilarity and moral conviction did explain unique variance in the physical distance participants maintained between themselves and a pro-choice target, even after we controlled for each of these alternative explanatory variables. As moral conviction increased among those who were pro-choice, physical distance placed between themselves and a pro-choice other decreased. Conversely, as moral conviction increased among those who were pro-life, physical distance placed between themselves and a pro-choice other increased. The degree that attitude similarity was associated with attraction (i.e., closer distances) was also weaker than the degree that attitude dissimilarity was associated with repulsion (i.e., greater distances) when participants were high in moral conviction.

[7] The effects of gender, attitude importance, certainty, centrality, and moral conviction were not included in the first step because (a) none of these variables were significantly correlated with the physical distance participants maintained between themselves and the target other; (b) none of the substantive variables were theoretically meaningful without taking into account attitude valence, that is, whether participants were pro-choice or pro-life; and (c) we wanted to maintain sufficient statistical power to detect moderated effects with this design (see McClelland & Judd, 1993; controlling for variables uncorrelated with the criterion unnecessarily consumes needed degrees of freedom to test more theoretically interesting effects). Controlling for any one of the variables excluded in the reported analysis did not eliminate the observed effect, but controlling for all of them did, something that seems to be due more to power than overlapping variance between excluded variables and moral conviction.

[8] The effects of attitude dissimilarity and the interactions of attitude dissimilarity with attitude importance, certainty, and centrality were also not significant if one first controlled for the moral conviction by attitude dissimilarity interaction.

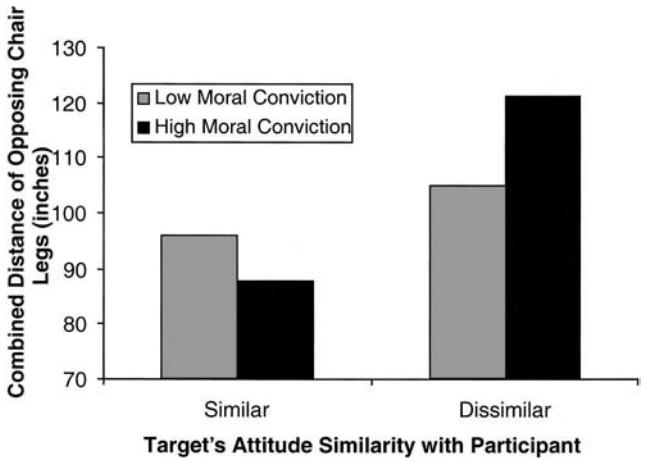

Figure 1. Average distance of participants' chair placement from a strongly pro-choice target as a function of participants' attitude similarity or dissimilarity with the target and participants' strength of moral conviction in Study 3.

In addition to supporting the moral mandate hypothesis that moral conviction is something more than or different from strong attitudes, the results of Study 3 also ruled out a possible alternative explanation for the results of Studies 1 and 2. One could argue that simply asking participants about whether their attitudes were rooted in moral conviction might lead to stronger subsequent reactions to attitudinally dissimilar others, given that moral conviction and reactions to attitudinally dissimilar others were all collected in a single session. However, no such possible demand characteristics were present in Study 3. Participants' attitudes and moral convictions were measured several weeks before they were in the lab, therefore reducing the likelihood that the observed results could be due to either demand characteristics or consistency pressures.

Study 4

To further (a) understand whether there is something distinctly different about moral mandates relative to strong attitudes, (b) disentangle whether the effects observed in previous studies reflected individual differences in moral rigidity or more issue-specific moral conviction, and (c) explore the interpersonal and behavioral consequences of moral mandates as compared with strong but nonmoral attitudes, in Study 4 we examined people's behavior in small, attitudinally homogeneous or heterogeneous groups. These groups were charged with trying to come up with a procedure that could be used to resolve a morally mandated issue, a nonmorally mandated issue, or an issue about which participants had a strong attitude but not a moral mandate.

There are a number of reasons to believe that people will have difficulty arriving at a procedural solution to resolve conflicts about morally mandated issues. Given that moral convictions about outcomes (e.g., whether abortion should or should not be legal) are seen in rigid and absolutist terms, it should feel awkward if not grossly inappropriate to agree to a binding procedure without knowing what outcome the procedure might yield. Consistent with this idea, considerable research has indicated that features of procedures that are typically associated with greater decision acceptance and enhanced perceptions of fairness (e.g., opportunities for voice, lack of bias) do not predict decision acceptance and perceptions of fairness when people have a moral mandate about outcomes (e.g., Skitka, 2002; Skitka & Houston, 2001; Skitka & Mullen, 2002b). For example, Skitka and Houston (2001) found that only those without a moral mandate about the need to punish a defendant perceived a defendants' death to be more fair if it occurred as a consequence of due process (a trial and subsequent death penalty) than vigilantism (being killed by a vigilante on the way to trial). Participants who had moral mandates about either defendant guilt or innocence perceived vigilantism and due process to be equally fair or unfair, respectively. These results suggest that procedural fairness is of little concern when people have moral mandates about outcomes and that the only thing that matters is that the "right" outcome is achieved. Study 4 was designed to test whether the focus on achieving specific outcomes also leads to an inability to agree to procedural solutions to resolve conflicts about morally mandated issues.

According to the moral mandate hypothesis, disagreement on moral issues should lead to greater interpersonal conflict than disagreement on nonmoral issues. In the context of a small group, this tension should manifest itself in the form of strained group interaction and difficulty in achieving consensus when discussing a procedure to resolve a morally mandated issue as compared with nonmoral issues, even if the nonmoral issue happens to be one people feel strongly about. Therefore, participants in attitudinally heterogeneous groups that discuss procedures to resolve a morally mandated issue should exhibit lower levels of good will toward other group members and report feeling less cooperative than participants who discuss procedures to resolve a (a) moral mandate in attitudinally homogeneous groups, (b) nonmoral mandate in attitudinally homogeneous or heterogeneous groups, or (c) strong but nonmoral attitude in attitudinally homogeneous or heterogeneous groups. This degree of group tension and defensiveness should also be apparent to third party judges. Finally, groups charged with developing a procedure to resolve a moral mandate, regardless of group composition, should have greater difficulty coming to consensus about a binding procedure than groups charged with developing a procedure to resolve an issue about which they have no moral mandate or a strong attitude. Even though participants in homogeneous groups could conceivably derive a biased procedure that would "ensure" a preferred outcome, they nonetheless could not be 100% sure it would in fact do so. Because participants care so much about outcomes when they are tied to moral convictions, they will become very concerned that the developed procedures must yield the correct outcome. However, because no procedure provides a 100% guarantee that it will yield a preferred outcome—even one that could ostensibly be stacked in one's favor—participants who are asked to design a procedure to resolve a morally mandated issue should ultimately be reluctant to commit to it. Moral mandates would seem to psychologically require guarantees. Therefore, even homogeneous groups should be risk averse and reluctant to trust a procedure to yield a morally mandated end.

Method

Participants

Eighty-six groups[9] (consisting of 242 total participants) provided data for the study. Participants were recruited from introductory psychology courses, and participation in the study partially fulfilled course requirements.

Experimental Design

The core experiment was a 2 (perceiver moral mandate: abortion and capital punishment) × 2 (discussion condition: abortion and capital punishment) × 2 (group composition: attitudinally homogeneous and heterogeneous) between-subjects design. Prospective participants were identified for whether they had a moral mandate on abortion or capital punishment, but not both issues, on the basis of data collected during a mass testing session at the beginning of the semester. Participants were recruited to specific sessions to create groups that were either homogeneous in participant opinion (i.e., all morally mandated pro-choice, all morally mandated pro-life, or all morally mandated against the death penalty or for the death penalty) or heterogeneous in participant opinion (e.g., 2 participants were pro-choice and 2 were pro-life). Homogeneous groups were run so that roughly equal numbers of the groups had "pro-issue" versus "anti-issue" moral mandates.

The groups that had moral mandates about the death penalty that discussed procedures to resolve the question of abortion served as a control condition for groups that had moral mandates on the death penalty who discussed procedures to resolve the question of the death penalty. Similarly, groups that had moral mandates on abortion who discussed procedures to resolve the question of the death penalty served as a control for groups that had a moral mandate about abortion who discussed procedures to resolve abortion. This design allowed us to rule out stable individual differences in moral rigidity that transcended issue content in how people approach both issues of the day and others who may or may not share their attitudes on the issues of the day. In addition, this design allowed us to test the generalizability of moral mandate effects across at least two issues (abortion and capital punishment).

To address the question of whether moral mandates have properties that distinguish them from other strong attitudes, we also ran two additional conditions of the experiment. Additional participants were identified through mass testing who were equal to those in the core design (i.e., they had a moral mandate on either abortion or capital punishment) but who also had a strong attitude but low moral conviction about whether students should have to pass a standardized test to graduate from high school. These participants were assigned the task of coming to consensus about a procedure to decide once and for all whether mandatory testing should be a graduation requirement in attitudinally homogeneous or heterogeneous groups. These groups served as additional control conditions that allowed us to test the hypothesis that people are more defensive about their moral mandates than about their strong attitudes by comparing the strong attitude groups that discussed their strong attitudes with the moral mandate groups that discussed their moral mandates.

The issues of abortion, capital punishment, and mandatory testing were selected as topics for use in Study 4 on the basis of pilot testing that indicated that these issues would be suitable. Specifically, sufficient numbers of students in our participant pool were morally mandated on both sides of the abortion and capital punishment issues to allow for us to reasonably collect data from equal numbers of homogeneous pro- and antigroups with respect to both of these issues (in case attitude valence should matter) and to create sufficient numbers of heterogeneous groups as well. In addition, attitudes and moral convictions about abortion and capital punishment do not tend to be highly correlated; thus, selecting these as focus issues allowed us to find sufficient participants who were morally mandated on one of these issues but not the other. Pilot testing also indicated that sufficient numbers of students had strong attitudes on both sides of the mandatory testing issue and that sufficient numbers did not see this issue as one tied to moral convictions for this topic to serve as an appropriate issue for our strong attitude groups.

Because no qualifying differences emerged (a) in comparisons of groups that discussed abortion or the death penalty across dependent measures and (b) between homogeneous groups whose positions either supported or opposed the status quo, the design could be simplified to be a Group Composition (homogeneous or heterogeneous) × Discussion Topic (a morally mandated issue, a nonmorally mandated issue, or a strong attitude issue) between-subjects design.

Pretesting

Potential participants provided ratings of attitude strength and moral conviction during a mass testing session at the beginning of the semester. To assess attitude extremity, we asked, "To what extent do you support or oppose. . ." (a) ". . .allowing abortion to remain a legal option in the U.S.?"; (b) ". . .the use of the death penalty in the U.S.?"; and (c) ". . .requiring students to pass a standardized test to graduate from high school in the U.S.?" Answers were reported on 7-point bipolar radio button scales that were scored from −3 to + 3 with verbal endpoint anchors of *strongly support* and *strongly oppose*. To assess attitude certainty, we asked, "How certain or uncertain are you about your position on [abortion/the death penalty/standardized testing]?" Answers were reported on a 7-point radio button scale that was scored from 1 to 7 with verbal endpoint anchors of *very certain* and *very uncertain* (this item was reverse scored so that higher numbers indicated more certainty). Attitude importance was assessed by asking, "How important or unimportant is the issue of [abortion/the death penalty/standardized testing] to you?" Answers were reported on a 7-point radio button scale with the endpoint anchors of *very important* and *very unimportant* (this item was reverse scored so that higher numbers indicated greater importance). To assess moral conviction, we asked potential participants the extent that they agreed or disagreed with the statement, "My attitude about [abortion/death penalty/standardized testing] is closely related to my core moral values and convictions," and to assess attitude centrality, we assessed agreement or disagreement with the statement, "My attitude about [abortion/death penalty/standardized testing] is closely tied to how I see myself as a person." Answers were reported on 7-point bipolar radio button scales that were scored from 1 to 7 with verbal endpoint anchors of *strongly agree* and *strongly disagree* (these items were reverse scored so that higher numbers indicated more moral conviction and higher centrality).

To create an index of attitude strength, we multiplied respondents' attitude extremity and certainty scores for each issue, which yielded a −21 to +21 index. Respondents whose score on the attitude strength index was greater than 13 or less than −13 on an issue were classified as having a strong attitude about that issue. Respondents who had a strong attitude about an issue and reported a 6 or 7 on the corresponding moral conviction item were classified as having a moral mandate about that issue; those that scored below 6 on the moral conviction were classified as not having a moral mandate on that issue.

Although we selected participants on the basis of extremity, certainty, and the presence or absence of strong moral conviction, we checked to ensure that these participants also perceived the issues they were selected for as important and central. Participants selected for having strong atti-

[9] Participants were run in 3- or 4-person groups. All heterogeneous groups were 4-person groups to ensure constancy in degree of heterogeneity. A number of homogeneous groups, however, were run as 3- rather than 4-person groups because of participant no-shows. There were no differences across any dependent measures in 3- versus 4-person homogeneous groups.

tudes and moral mandates with the method described above saw their issue as more important and central than those who were not selected for that issue, $F(1, 240) = 40.10$, $p < .001$, $\eta^2 = .16$, and $F(1, 240) = 22.12$, $p < .001$, $\eta^2 = .10$, respectively. Moreover, single-sample t tests revealed that those selected for a particular issue rated that issue as significantly higher on importance and centrality than the midpoints of these measures, $t(240) = 14.90$, $p < .001$, and $t(240) = 12.03$, $p < .001$, respectively.

Respondents' strong attitude or moral mandate classifications determined whether and for what condition they were eligible to participate in the study. To be eligible for the abortion moral mandate groups, participants needed to have a moral mandate about abortion but not the death penalty. Similarly, to be eligible for the death penalty moral mandate groups, participants needed to have a moral mandate about the death penalty but not abortion. To be eligible for the standardized testing strong attitude groups, participants needed to have a moral mandate about the death penalty and/or abortion and a strong attitude (but not a moral mandate) about standardized testing.

Procedure

When they arrived at the lab, participants were given both verbal and written instructions about the experiment. Participants were allowed to keep their written instructions for reference during group discussion. These instructions informed participants that the study was being conducted to gain a deeper understanding of how people think different issues should be fairly resolved. They were told that they would be asked to discuss a controversial issue of the day and that the discussion would be videotaped. Participants were then told that their task would be to discuss procedures to decide whether (a) abortion should remain a legal option in the United States, (b) the death penalty should be continued to be used in the United States, or (c) standardized tests should be a graduation requirement in the United States.

The experimenter and the written instructions explained that the procedure the group was to develop needed to contain two components. First, the procedure needed to identify who should make the decision. Second, the procedure needed to describe how the decision should be made. Participants were explicitly reminded that their task was not to make the decision itself but instead to try to come to an agreement about who should make this decision and how they should make it. The experimenter then provided the group with an example of an acceptable (albeit ridiculous) procedure. He or she mentioned that the group could conceivably agree that the tooth fairy (the who) should flip a coin (the how) to make the decision.

After providing the example, the experimenter then solicited questions from the participants and made sure that they understood their task. He or she then passed out a vote instruction worksheet, which was also reviewed with participants. Participants were instructed that any time after the first 5 min of discussion that they could choose to vote by secret ballot to see if they had come to a point at which group discussion could end. Any group member could suggest that the group take a vote at any time after the first 5 min of discussion. Group discussion could end if the group came to unanimous consensus that each group member could accept a procedure that the group developed as legally binding (note that part of the balloting process required that participants write down the how and who components of the procedure to be voted on). That is, discussion would end if each person in the group indicated by secret ballot that they could truly accept the outcome generated by the group-designed procedure as the final word on abortion (or the death penalty or standardized testing). Participants were also instructed that they could vote on whether group discussion had arrived at an impasse. Group discussion could also end if the group unanimously agreed that they were deadlocked or could never come to consensus on an acceptable procedure, also by secret ballot. Finally, participants were instructed that group discussion could end without a decision if the group "timed out" and exceeded the time available for discussion (30 min). Participants were told that there was not a correct answer or solution to the group exercise and that each of the possible conclusions to group discussion were valid conclusions to the exercise.

A ballot box and voting worksheets were provided. After addressing any remaining questions, the experimenter left the room during group discussion. The experimenter returned whenever group members indicated that they had taken a ballot and needed votes to be counted and/or when 30 min elapsed. After group discussion, participants completed postdiscussion questionnaires and then were debriefed and thanked for their participation.

It is important to note that group members were blind to other group members' attitudes on their assigned discussion topic prior to group discussion. Because participants were instructed to discuss procedures to resolve their assigned issue, there was also not any explicit pressure on participants to reveal their preferences about outcomes or their personal beliefs about the issue (e.g., whether abortion should or should not be legal).

Measures

After participating in the group exercise, participants completed a questionnaire to assess their perceptions of what they experienced during the group session.

Good will. The good will measure consisted of four items measured on 7-point semantic differential scales. Specifically, participants were asked the degree that they felt friendly versus unfriendly, satisfied versus dissatisfied, peaceable versus argumentative, and close versus distant to other group members during the group discussion. Items were scored from −3 to + 3 so that high scores reflected greater good will. This scale had a Cronbach's alpha of .79.

Cooperativeness. Cooperation was assessed with three items, also measured on 7-point semantic differential scales. Participants rated the degree that they felt flexible or inflexible, willing or unwilling to compromise, and competitive or cooperative. After we scored items so that higher scores reflected greater flexibility, cooperativeness, and willingness to compromise, the scale had a Cronbach's alpha of .66.

Observational ratings. In addition to collecting individual feelings of good will and cooperation, we also coded videotapes of the group discussion to independently assess the degree that the group discussion appeared to be tense and defensive. A coder, blind to the composition of each group, rated the extent that each group's climate was tense and the relative degree of defensiveness displayed by group members on 0 (*not at all*) to 4 (*very much*) scales. To assess reliability, a second coder, also blind to the composition of each group and research hypotheses, independently evaluated a subset of 13 videotaped group discussions. Intercoder agreement was strong, with $r = .83$ and $r = .86$ for the tension and defensiveness measures, respectively. Coders also assessed whether and how many group members disclosed their attitudes about their assigned issue, whether group discussion began with a discussion of preferred outcomes or procedures, and the amount of time group discussion focused on preferred outcomes or procedures.

Group outcomes. In addition to these measures, we also assessed whether groups came to consensus about a procedure to resolve their assigned issue. There were three possible group outcomes: Groups could (a) come to unanimous agreement about a procedure by a group vote; (b) come to unanimous agreement that they could never achieve consensus on a procedure, also by group vote; or (c) time out before they came to consensus about whether they could arrive at a procedure or about whether they would never arrive at a consensually agreed on procedure to resolve their assigned issue.

Results

Before turning to the analysis of how group configurations and discussion topic influenced perceptions of other group members and group decision making, we first briefly describe some explor-

Table 7
Means and Standard Deviations of Good Will, Cooperativeness, Tension, and Defensiveness (Study 4)

Discussion	Group composition	Individual good will		Individual cooperativeness		Third party judges' ratings of group tension		Third party judges' ratings of group defensiveness	
		M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Moral mandate	Homogeneous	1.62_a	0.94	1.81_a	0.95	1.25_a	0.96	0.15_a	0.37
	Heterogeneous	1.13_b	1.32	1.26_b	1.53	2.45_b	1.21	1.18_b	1.33
Nonmoral mandate	Homogeneous	1.51_a	1.02	1.81_a	0.76	1.60_a	0.52	0.40_a	0.70
	Heterogeneous	1.76_c	1.07	1.82_a	1.04	0.94_c	0.87	0.11_a	0.47
Strong attitude	Homogeneous	1.45_a	1.20	1.53_a	1.30	1.09_a	1.04	0.45_a	0.93
	Heterogeneous	1.81_c	1.07	2.19_c	1.85	0.57_c	0.79	0.14_a	0.38

Note. Means with noncommon subscripts within each measure were significantly different at $p < .05$.

atory analyses of group discussion. Examination of the videotaped discussions indicated that 91% of the groups spent some time disclosing their attitudes about the issue they were assigned to consider (e.g., whether abortion should be legalized). Whether some or all group members disclosed their attitudes about their assigned issue did not vary as a function of group composition or discussion topic. Groups overall spent more time discussing procedures ($M = 322.21$ s, $SD = 314.10$ s) than their preferred outcomes ($M = 206.88$ s, $SD = 291.48$ s), $F(1, 76) = 4.87$, $p < .05$, $\eta^2 = .06$, and time devoted to discussing procedures or outcomes did not vary as a function of group composition or discussion topic. Of interest, groups that discussed a strong attitude (87%) or a nonmoral mandate (72%), however, were more likely to lead off discussion with disclosure about their positions on their issues than were groups that discussed a moral mandate (41%), $\chi^2(8, N = 86) = 15.95$, $p < .05$.

Group Climate

The universalism hypothesis predicted that participants would feel less good will and cooperativeness in attitudinally heterogeneous groups that were asked to design procedures to resolve a morally mandated issue than they would in other group contexts (e.g., attitudinally heterogeneous groups that discussed a nonmandated issue or an issue for which they had a strong attitude but not a moral mandate or attitudinally homogeneous groups that discussed a moral mandate, a nonmoral mandate, or a strong attitude). Similarly, third party observers should rate attitudinally heterogeneous groups that discussed a moral mandate as more tense and defensive than groups with other combinations of discussion topic and group composition.

Good will. It was predicted that participants who discussed procedures to resolve a morally mandated issue in an attitudinally heterogeneous group would express less good will toward other group members than would participants in other group configurations. Results supported this hypothesis. Specifically, the group composition and discussion topic interaction had a significant effect on perceived good will toward other group members, $F(2, 232) = 3.31$, $p < .05$, $\eta^2 = .03$.[10] Examination of the simple main effects indicated that good will toward other group members did not vary as a function of discussion condition in attitudinally homogeneous groups, $F(2, 232) < 1$, but did vary as a function of discussion condition in attitudinally heterogeneous groups, $F(2, 232) = 4.79$, $p < .01$, $\eta^2 = .07$. As can be seen in Table 7, participants in heterogeneous groups that discussed a morally mandated issue reported feeling less good will toward their fellow group members than did those who discussed a nonmoral mandate, $F(1, 232) = 7.47$, $p < .01$, $\eta^2 = .07$, or those who discussed a strong attitude, $F(1, 232) = 5.47$, $p < .05$, $\eta^2 = .07$. There were no differences in good will toward other group members in the latter two discussion conditions, $F(1, 232) < 1$. Tukey's tests also indicated that participants who discussed procedures to resolve a morally mandated issue in attitudinally heterogeneous groups reported the lowest overall level of good will and participants who discussed procedures to resolve either a nonmoral mandate or a strong attitude in attitudinally heterogeneous groups reported the greatest level of good will toward other group members (see Table 7).

Cooperativeness. It was also predicted that participants who discussed procedures to resolve a morally mandated issue in attitudinally heterogeneous groups would feel less cooperative during group discussion than would participants in other group configurations. Results also supported this hypothesis. Group composition and discussion topic interacted to affect participants' perceptions of cooperativeness, $F(2, 232) = 5.28$, $p < .05$, $\eta^2 = .04$. Analysis of simple main effects indicated that reported cooperativeness did not vary as a function of discussion topic in attitudinally homogeneous groups, $F(2, 232) < 1$, but did vary as a function of discussion topic in attitudinally heterogeneous groups, $F(2, 232) = 5.40$, $p < .01$, $\eta^2 = .08$. As can be seen in Table 7, participants in heterogeneous groups that discussed a morally mandated issue reported feeling less cooperative than did those who discussed a nonmoral mandate, $F(1, 232) = 4.77$, $p < .01$, $\eta^2 = .04$, or those who discussed a strong attitude, $F(1, 232) = 8.18$, $p < .01$, $\eta^2 = .11$. Those who discussed a strong attitude in attitudinally heterogeneous groups reported higher degrees of cooperativeness than did those who discussed a nonmoral mandate, $F(1, 232) = 3.62$, $p < .05$, $\eta^2 = .04$. As can also be seen in Table 7, Tukey's tests indicated that participants who discussed procedures to resolve a moral mandate in attitudinally heterogeneous groups were the

[10] The same results emerged regardless of whether we used an analysis that nested individuals within groups.

lowest in reported cooperativeness and participants who discussed procedures to resolve a strong attitude were the highest in reported cooperativeness.

Group tension. It was also predicted that third party judges would observe greater levels of tension in attitudinally heterogeneous groups that discussed a moral mandate than in the other groups. Results also supported this hypothesis. Third party evaluations of group tension also varied as a function of a Group Composition × Discussion Topic interaction, $F(2, 76) = 7.37$, $p < .01$, $\eta^2 = .16$. Analysis of simple main effects indicated that there were no differences in judged group tension as a function of discussion topic when groups were attitudinally homogeneous, $F(2, 76) < 1$, but that there were differences when groups were attitudinally heterogeneous, $F(2, 76) = 9.37$, $p < .01$, $\eta^2 = .34$. Attitudinally heterogeneous groups that discussed a morally mandated issue were higher in judged tension than were attitudinally heterogeneous groups that discussed either a nonmandated issue, $F(1, 76) = 14.29$, $p < .01$, $\eta^2 = .32$, or a strong attitude, $F(1, 76) = 11.20$, $p < .01$, $\eta^2 = .28$. The latter two groups were equally low in judged tension, $F(1, 76) < 1$. As can be seen in Table 7, Tukey's tests indicated that levels of tension were highest in groups that discussed procedures to resolve a morally mandated issue in attitudinally heterogeneous groups and lowest in groups that discussed procedures to resolve a strong attitude issue in heterogeneous groups.

Group defensiveness. Finally, it was also predicted that third party observers would observe greater degrees of defensiveness in attitudinally heterogeneous groups that discussed procedures to resolve a morally mandated issue than they would in other group configurations. Results supported this hypothesis. Third party evaluations of the degree that group discussions were characterized by defensiveness varied as a joint function of group composition and discussion topic, $F(2, 76) = 7.22$, $p < .01$, $\eta^2 = .16$. Analysis of simple main effects indicated that attitudinally homogeneous groups were equally low in judged defensiveness, $F(2, 76) = 1.58$, *ns*, $\eta^2 = .07$, whereas attitudinally heterogeneous groups were seen as differentially defensive, $F(2, 76) = 6.71$, $p < .01$, $\eta^2 = .27$. Attitudinally heterogeneous groups that discussed a morally mandated issue were higher in judged defensiveness than attitudinally heterogeneous groups that discussed either a nonmandated issue, $F(1, 76) = 9.86$, $p < .01$, $\eta^2 = .27$, or a strong attitude, $F(1, 76)$ 4.99, $p < .05$, $\eta^2 = .21$. The latter two groups were equally low in judged defensiveness, $F(1, 76) < 1$. Tukey's tests also indicated that groups that discussed procedures to resolve a morally mandated issue in attitudinally heterogeneous groups were the most defensive and groups that discussed procedures to resolve a strong but nonmoral attitude issue in attitudinally heterogeneous groups were the least defensive (see Table 7).

In summary, results supported the hypothesis that interpersonal interaction would be more strained in attitudinally heterogeneous groups that discussed procedures to decide a moral mandate than it would be in groups that discussed nonmoral mandates or strong attitudes in either homogeneous or heterogeneous groups. If moral mandates and strong attitudes were essentially the same construct, one would expect that interpersonal interaction would be similarly strained in attitudinally heterogeneous groups that discussed procedures to resolve an issue about which people had strong attitudes. Results revealed instead that attitudinally heterogeneous groups that discussed procedures to resolve a strong attitude were highest in good will and cooperativeness and lowest in tension and defensiveness relative to the other groups.

Consensus

We turned next to testing whether group composition and discussion topic also had an impact on group outcomes, that is, whether groups were able to come to consensus about a procedure to decide their assigned issue. We predicted that groups should have more difficulty coming to consensus about a procedure to decide a morally mandated than nonmorally mandated issue, irrespective of group composition. It was hypothesized that groups asked to develop a procedure to resolve their morally mandated issue would be less likely to arrive at consensus than would groups asked to develop a procedure for their nonmandated issue. Results supported this hypothesis. Specifically, 56% of the groups that discussed their mandated issue were able to come to agreement about a procedure to resolve their issue, compared with 80% of those who were asked to develop a procedure to resolve their nonmandated issue, $\chi^2(1, N = 62) = 4.00$, $p < .05$. In addition, fewer morally mandated groups came to consensus about a procedure than did strong attitude groups (67%); however, this difference was not significant, $\chi^2(1, N = 55) = 1.87$, $p = 11$. Those groups that did not agree on a procedure were more likely to "hang," (i.e., to come to unanimous agreement that they would never agree; 75%) than to time out (25%), $\chi^2(1, N = 30) = 3.33$, $p < .05$; group configuration was not associated with differences in hanging versus timing out. These findings were not qualified by the content of people's moral mandates (whether they were mandated about abortion or capital punishment); group composition (whether groups were composed of people with homogeneous or heterogeneous positions); or among those in homogeneous groups, whether their moral mandates supported or opposed the status quo (i.e., whether participants were proabortion or procapital punishment vs. antiabortion or anticapital punishment).

In summary, results indicated that groups that discussed procedures to resolve conflicts about moral mandates were less likely to agree to a procedure than were groups that discussed procedures to resolve conflict about a nonmoral mandate or a strong attitude, although differences between moral mandate and strong attitude groups were only marginally significant.

Discussion

The results of Study 4 supported the hypothesis that interpersonal interaction would be more strained in attitudinally heterogeneous groups that discussed procedures to resolve a conflict over a moral mandate than it would be in groups that discussed procedures to resolve a conflict over a nonmoral mandate or a strong attitude. Not only did individual participants report feeling less positively in heterogeneous groups that discussed a morally mandated issue, but also third party observers could detect greater group-level tension and defensiveness in these groups.

Comparisons of attitudinally heterogeneous groups that discussed procedures to resolve a moral mandate and those that discussed procedures to resolve a strong attitude were especially striking. Attitudinally heterogeneous groups that discussed a moral mandate had the least good will and cooperation and the most tension and defensiveness. In contrast, attitudinally heterogeneous

groups that discussed a strong attitude had the greatest good will and cooperativeness and the least tension and defensiveness relative to other groups. In short, discussing issues with attitudinally dissimilar others is a very different experience when one has a strong attitude versus a moral mandate. Attitude dissimilarity appears to be interesting and even fun when people feel strongly but do not have any particular moral convictions about the issue under consideration. In contrast, attitude dissimilarity appears to be more stressful and troubling when people discuss procedures to resolve moral mandates.

Whether groups discussed a moral mandate, a nonmoral mandate, or a strong attitude also affected groups' ability to come to consensus about a procedure to resolve their assigned issue. Regardless of group composition, morally mandated groups were less likely than nonmandated groups, and tended to be a bit less likely than strong attitude groups, to come to consensus about a procedure to decide their assigned issue. One could interpret the weak evidence of differences between the moral mandate and strong attitude groups' ability to generate consensus about a procedure as evidence that there is little in the way of differences between moral mandates and strong attitudes after all. However, the marginal nature of this result is more likely to be a consequence of low levels of statistical power than to be due to fundamental similarities between the strong attitude and moral mandate group contexts. When one considers the results of Study 4 as a whole—the differences in groups' ability to come to consensus in conjunction with the group climate differences—it is clear that the results are more consistent with the moral mandate hypothesis than they are with the notion that moral mandates are functionally equivalent to strong attitudes.

It is important to note that the group climate and consensus differences observed in Study 4 emerged even though participants were blind to each other's attitudes when they entered into discussion. Moreover, because the participants' task was to develop a procedure and not to decide an outcome, there was no task demand that they disclose their attitudes about how their issue should ultimately be resolved, even though most groups did spend time sharing their preferences about outcomes. The relative degree of attitude dissimilarity had a clear impact on group climate and ability to arrive at consensus even though groups spent more group discussion time focusing on procedures than on outcomes.

In addition, individual differences in the tendency to report that one's attitudes were held with moral conviction were held constant in the present study. All participants in Study 4 were selected to have a moral mandate about either capital punishment or abortion; what varied was whether they discussed procedures to resolve an issue about which they felt morally mandated or some other issue. Recall that attitudinally heterogeneous groups that discussed a nonmoral mandate were heterogeneous with respect to a morally mandated issue; they simply did not discuss their mandated issue but instead discussed an issue they did not have a moral mandate about. These groups were therefore attitudinally dissimilar on a morally mandated issue but nonetheless emerged as one of the group configurations that had the most positive group climates and the group configuration associated with the highest degree of consensus. Therefore, individual differences in the tendency to have a moral mandate would not appear to drive the effects observed here. Taken together, the results of Study 4 therefore provided additional support for the moral mandate hypothesis and helped to rule out the possibility that observed moral mandate effects are due to individual differences in moral rigidity.

General Discussion and Conclusion

The universality and impact predictions of the moral mandate hypothesis were supported in four studies. As moral conviction associated with an attitude increased, so too did interpersonal distance from dissimilar others, a result that emerged with respect to participant nominated most important issues (Study 1), a wide range of experimenter provided issues (Study 2), and a behavioral measure of physical distance (Study 3). The effect of moral conviction on social and physical distance held even when we controlled for other indices of attitude strength, including attitude extremity, importance, certainty, and centrality. Other alternative explanations for the finding that people prefer to maintain greater social distance from attitudinally dissimilar others when attitude dissimilarity is associated with high as compared with low moral conviction were also explored. The effects of moral conviction on preferred social distance from attitudinally dissimilar others were robust, even when we controlled for political orientation and individual differences in the tendency to see issues overall in a moral light.

The results of Studies 1 and 2 also indicated that attitude dissimilarity on issues held with high moral conviction led to more universal rejection of dissimilar others than did attitude dissimilarity on issues held with low moral conviction. Specifically, people expressed more universal intolerance of attitudinally dissimilar others in both intimate (e.g., friend) and more distant relationships (e.g., owner of a store one frequents) when attitudes were held with high moral conviction. In contrast, people were more tolerant of attitudinally dissimilar others overall, and especially in distant rather than close relationships, when attitudes were held with low moral conviction. In contrast, measures of attitude strength had inconsistent patterns of results across both relationship types and attitude domains and were more often than not unassociated with preferred social distance from attitudinally dissimilar others.

The results of Study 4 also supported the hypothesis that people would react differently to attitudinally dissimilar others as a function of whether dissimilarity was strongly or weakly associated with moral convictions. The results of Study 4 revealed that people reacted more negatively when other participants in a group discussion did not share their strong moral convictions than when they did not share their strong attitudes. For example, people in attitudinally heterogeneous groups that discussed procedures to resolve a morally mandated issue reported lower levels of cooperativeness and good will toward other group members than did people who discussed procedures to resolve a strong but nonmorally mandated issue. Even third party observers could detect that attitudinally heterogeneous groups that discussed procedures to resolve a morally mandated issue were more tense and defensive than were heterogeneous groups that discussed procedures to resolve a conflict about strong attitudes. The results of Study 4 also indicated that negative reactions toward those who did not share one's moral convictions emerged even when people had no a priori knowledge of other group members' positions on issues and were under no obligation to disclose their attitudes to the group. In summary, the results of four studies, in which we used different

methods, converged on the conclusion that people have stronger negative reactions to attitudinally dissimilar others on issues about which they feel morally mandated than on issues about which they feel strongly but not morally mandated.

The Relative Value of Reductionism

The primary orientation of the research presented here was to try to prove that moral convictions are something different from structural characteristics of strong attitudes by testing whether moral convictions could be reduced to attitude extremity, importance, certainty, and centrality. This approach places the inquiry of moral conviction on a slippery slope, for there is no end, in principle, to the search for nonmoral properties of attitudes that could explain away the effects of morality, just as there is no end (at least in principle) to the potential for hairsplitting over the degree to which one has created a fair or level methodological playing field. For example, one could argue that perhaps moral conviction effects reduce to the absence of ambivalence or are due instead to the logical conclusion that strong moral convictions cannot be distinguished from integratively simple attitudes. Although like all researchers, we can make only limited claims based on the empirical record we have been able to build for our case thus far, we nonetheless do not think it will be possible to reduce moral mandates to some combination of nonmoral content and structural attributes of attitudes (such as extremity, importance, etc.). For example, the present research did not rule out attitude ambivalence as an alternative explanation for the effects of moral conviction. Nor did we rule out whether what we are capturing instead is simply the effects of variations in integratively simple versus complex thought. We reply that although all moral mandates would appear to be unambivalent, not all unambivalent attitudes will be held with moral conviction. Similarly, although all moral mandates would appear to be low in integratively complexity, not all integratively simple attitudes will be experienced as moral convictions. In summary, reductionism seems to be a rather fruitless enterprise in this domain of inquiry: There is a weak one-to-one correspondence between morally mandated attitudes and otherwise strong but nonmoral attitudes. Although it will be interesting to test hypotheses about how and why moral mandates have the effects they do, further attempts at reductionism would seem to be relatively low on the list of interesting possible avenues for future research in this area.

Implications

The results of this research have a number of interesting implications. Specifically, each of these studies indicated that moral conviction was associated with intolerance. Results indicated that people do not want to live near, be friends with, or even sit too close to someone who does not share their core moral convictions (see also Haidt et al., 2003). People also have greater difficulty generating procedural solutions to resolve conflict and have a more negative experience working with attitudinally dissimilar others when attitude dissimilarity involves strong moral convictions than when it does not. Although moral conviction is likely to have prosocial consequences (e.g., associations with charitable giving, volunteerism, voting), moral conviction appears to have a dark side as well (see also Skitka & Mullen, 2002a). As alluded to at the beginning of this article, we suspect that extreme actions, such as the terrorist attacks on 9/11, the Weatherman bombings in protest of the Vietnam War, ethnic cleansing in Bosnia, or the assassination of abortion providers, may be based on very different ideological beliefs but nonetheless share a common theme: The people who did these things appear to be motivated by strong moral convictions. Although some argue that engaging in behaviors like these requires moral disengagement (Bandura, 1999), we wonder instead if they require maximum moral engagement and justification.

Although the universality prediction of the moral mandate hypothesis suggested that interpersonal reactions and behavior were good places to begin to test whether moral conviction could be distinguished from other features of attitude strength, future research needs to expand the range of dependent variables that moral conviction may impact. For example, it would be interesting to explore whether moral mandates are more resistant than otherwise strong but nonmoral attitudes to persuasive appeals. Persuasive messages that appeal to moral values may also be more persuasive than those that focus on preferences or convention because they include stronger motivations and justifications for action. In addition to research exploring the links between strength of moral convictions and interpersonal behaviors associated with attitudinally dissimilar others, research exploring whether moral conviction also emerges as a stronger predictor of other behaviors, including more prosocial behaviors, would be interesting as well. Now that there is some evidence that attitudes held with strong moral conviction are different from otherwise strong but nonmoral attitudes, it will also be interesting to begin to explore what leads people to develop moral convictions about some issues but not others.

For example, one might argue on the basis of the universalism hypothesis that moral mandate effects are a consequence of domain-specific activation of particular cognitively rigid mindsets. People may become more cognitively inflexible and intolerant of ambiguity when thinking about moral mandates than when thinking about preferences or conventions. Although people may not be chronically intolerant of ambiguity or low in integrative complexity, these cognitive styles may be triggered in contexts that bring moral mandates to mind, such as when people witness a moral transgression. A blanket refusal to entertain certain thoughts may be essential for people to sustain the belief that there is a collective moral order that allows for social cooperation and trust as well as to believe in their own fundamental moral authenticity. In support of this idea, Tetlock et al. (2000) found that people resisted consideration of counterfactual reasoning with respect to their moral beliefs but were willing to engage in this kind of reasoning in amoral contexts.

Unlike rationalist theories of morality that assume that morals can be either deduced or inferred and therefore that differences in reasoning are likely to be the most important determinants of differences in what people perceive as moral or immoral, intuitionist theories of morality claim that morals have properties that humans can perceive without careful thought (Shweder & Haidt, 1993). Working from the latter perspective, Haidt (2001) proposed that moral judgment is a spontaneous process of evaluating people or their actions and that people make moral judgments through automatic appraisal processes that are similar (if not identical) to the cognitive processes involved in emotional appraisal. People

often have established appraisal patterns, and introduction of the appropriate eliciting events is all that is necessary to elicit an emotional response, such as anger or disgust. Therefore, moral mandate effects might be a consequence of the emotions that are elicited when thinking about moral mandates relative to thinking about one's strong but nonmoral attitudes. Consistent with this idea, there is some research that indicates that discrete emotions function either as a source of moral judgment (Haidt, Koller, & Dias, 1993) or as predictors of moral judgment (Rozin, Lowery, Imada, & Haidt, 1999). Similarly, neuropsychological research suggests that people generate affect in conjunction with moral judgment and that these affective states subsequently guide moral judgment and choice (Damasio, 1994; Greene & Haidt, 2002; Greene, Sommerville, Nystrom, Darley, & Cohen, 2001).

Researchers have identified the following emotional states as particularly relevant in moral decision making: guilt–shame, anger, disgust, and anxiety (see Haidt, 2003, for a comprehensive review). If moral emotions or a specific subset of moral emotions account for moral mandate effects, then people may respond with stronger moral convictions to issues after having been induced to feel moral emotions. Alternatively, moral mandate effects might be made weaker if people are instructed to make judgments using more rational and dispassionate mindsets than when asked to make judgments relying more on feelings and intuitions.

In conclusion, the research described in this article reports on evidence that attitudes held with strong moral conviction are different from and more impactful than strong but nonmoral attitudes. Although there is still much to learn about what leads people to have moral mandates and what the full range of consequences of morally mandated attitudes might be, these results suggest a new frontier for attitude theory and research in particular and social psychological research more generally. Although questions of morality have played a central role in theory and research on psychological development, relatively little work in social psychology has explored the role that moral concerns may play in people's everyday social interactions. In light of an increasing awareness that many forms of social conflict appear to be rooted in deep moral cleavages and different assumptions about fundamental questions of right and wrong, the development of a greater social psychological understanding of morality would seem to be especially important to pursue.

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