Liberals and Conservatives Rely on Different Sets of Moral Foundations

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How and why do moral judgments vary across the political spectrum? To test moral foundations theory (J. Haidt & J. Graham, 2007; J. Haidt & C. Joseph, 2004), the authors developed several ways to measure people's use of 5 sets of moral intuitions: Harm/care, Fairness/reciprocity, Ingroup/loyalty, Authority/respect, and Purity/sanctity. Across 4 studies using multiple methods, liberals consistently showed greater endorsement and use of the Harm/care and Fairness/reciprocity foundations compared to the other 3 foundations, whereas conservatives endorsed and used the 5 foundations more equally. This difference was observed in abstract assessments of the moral relevance of foundation-related concerns such as violence or loyalty (Study 1), moral judgments of statements and scenarios (Study 2), "sacredness" reactions to taboo trade-offs (Study 3), and use of foundation-related words in the moral texts of religious sermons (Study 4). These findings help to illuminate the nature and intractability of moral disagreements in the American "culture war."

Keywords: morality, ideology, liberal, conservative

Political campaigns spend vast sums appealing to the self-interests of voters, yet rational self-interest often shows a weak and unstable relationship to voting behavior (Kinder, 1998; Miller, 1999; Sears & Funk, 1991). Voters are also influenced by a wide variety of social and emotional forces (Marcus, 2002; Westen, 2007). Some of these forces are trivial or peripheral factors whose influence we lament, such as a candidate's appearance (Ballew & Todorov, 2007). In recent years increasing attention has been paid to the role of another class of non-self-interested concerns: morality. Voters who seem to vote against their material self-interest are sometimes said to be voting instead for their values, or for their vision of a good society (Lakoff, 2004; Westen, 2007). However, the idea of what makes for a good society is not universally shared. The "culture war" that has long marked American politics (Hunter, 1991) is a clash of visions about such fundamental moral issues as the authority of parents, the sanctity of life and marriage, and the proper response to social inequalities. Ideological commitments are moral commitments; they are not necessarily strategies for self-enrichment.

In this article we examine moral foundations theory, which was originally developed to describe moral differences across cultures (Haidt & Joseph, 2004). Building on previous theoretical work (Haidt & Graham, 2007), we apply the theory to moral differences across the political spectrum within the United States. We propose a simple hypothesis: Political liberals construct their moral systems primarily upon two psychological foundations—Harm/care and Fairness/reciprocity—whereas political conservatives construct moral systems more evenly upon five psychological foundations—the same ones as liberals, plus Ingroup/loyalty, Authority/respect, and Purity/sanctity. We call this hypothesis the *moral foundations hypothesis*, and we present four studies that support it using four different methods.

Liberals and Conservatives

Political views are multifaceted, but a single liberal–conservative (or left–right) continuum is a useful approximation that has predictive validity for voting behavior and opinions on a wide range of issues (Jost, 2006). In terms of political philosophy, the essential element of all forms of liberalism is individual liberty (Gutmann, 2001). Liberals have historically taken an optimistic view of human nature and of human perfectibility; they hold what Sowell (2002) calls an "unconstrained vision" in which people should be left as free as possible to pursue their own courses of personal development. Conservatism, in contrast, is best understood as a "positional ideology," a reaction to the challenges to authority and institutions that are so often mounted by liberals (Muller, 1997). Conservatives have traditionally taken a more

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pessimistic view of human nature, believing that people are inherently selfish and imperfectible. They therefore hold what Sowell called a "constrained vision" in which people need the constraints of authority, institutions, and traditions to live civilly with each other.

In terms of their personalities, liberals and conservatives have long been said to differ in ways that correspond to their conflicting visions. Liberals on average are more open to experience, more inclined to seek out change and novelty both personally and politically (McCrae, 1996). Conservatives, in contrast, have a stronger preference for things that are familiar, stable, and predictable (Jost, Nosek, & Gosling, 2008; McCrae, 1996). Conservatives—at least, the subset prone to authoritarianism—also show a stronger emotional sensitivity to threats to the social order, which motivates them to limit liberties in defense of that order (Altemeyer, 1996; McCann, 2008; Stenner, 2005). Jost, Glaser, Sulloway, and Kruglanski (2003) concluded from a meta-analysis of this literature that the two core aspects of conservative ideology are resistance to change and acceptance of inequality. How can these various but complementary depictions of ideological and personality differences be translated into specific predictions about moral differences? First, we must examine and revise the definition of the moral domain.

Expanding the Moral Domain

The consensus view in moral psychology has been that morality is first and foremost about protecting individuals. The most cited definition comes from Turiel (1983, p. 3), who defined the moral domain as "prescriptive judgments of justice, rights, and welfare pertaining to how people ought to relate to each other." Turiel (2006) explicitly grounded this definition in the tradition of liberal political theory from Kant through John Stuart Mill to John Rawls. Nearly all research in moral psychology, whether carried out using interviews, fMRI, or dilemmas about stolen medicine and runaway trolleys, has been limited to issues of justice, rights, and welfare.

When morality is equated with the protection of individuals, the central concerns of conservatives—and of people in many non-Western cultures—fall outside the moral domain. Research in India, Brazil, and the United States, for example, has found that people who are less Westernized treat many issues related to food, sex, clothing, prayer, and gender roles as moral issues (Shweder, Mahapatra, & Miller, 1987), even when they involve no harm to any person (Haidt, Koller, & Dias, 1993). Shweder, Much, Mahapatra, and Park (1997) proposed that Western elites are unusual in limiting the moral domain to what they called the "ethic of autonomy." They proposed that morality in most cultures also involves an "ethic of community" (including moral goods such as obedience, duty, interdependence, and the cohesiveness of groups and institutions) and an "ethic of divinity" (including moral goods such as purity, sanctity, and the suppression of humanity's baser, more carnal instincts).

Haidt (2008) recently suggested an alternative approach to defining morality that does not exclude conservative and non-Western concerns. Rather than specifying the *content* of a truly moral judgment he specified the *functions* of moral systems: "Moral systems are interlocking sets of values, practices, institutions, and evolved psychological mechanisms that work together to suppress or regulate selfishness and make social life possible" (p. 70). Haidt described two common kinds of moral systems—two ways of suppressing selfishness—that correspond roughly to Sowell's (2002) two visions. Some cultures try to suppress selfishness by protecting individuals directly (often using the legal system) and by teaching individuals to respect the rights of other individuals. This *individualizing* approach focuses on individuals as the locus of moral value. Other cultures try to suppress selfishness by strengthening groups and institutions and by binding individuals into roles and duties in order to constrain their imperfect natures. This *binding* approach focuses on the group as the locus of moral value.

The individualizing–binding distinction does not necessarily correspond to a left-wing versus right-wing distinction for all groups and in all societies. The political left has sometimes been associated with socialism and communism, positions that privilege the welfare of the group over the rights of the individual and that have at times severely limited individual liberty. Conversely, the political right includes libertarians and "laissez-faire" conservatives who prize individual liberty as essential to the functioning of the free market (Boaz, 1997). We therefore do not think of political ideology—or morality—as a strictly one-dimensional spectrum. In fact, we consider it a strength of moral foundations theory that it allows people and ideologies to be characterized along five dimensions. Nonetheless, we expect that the individualizing–binding distinction can account for substantial variation in the moral concerns of the political left and right, especially in the United States, and that it illuminates disagreements underlying many "culture war" issues.

Moral Foundations Theory

Several theorists have attempted to reduce the panoply of human values to a manageable set of constructs or dimensions. The two most prominent values researchers (Rokeach, 1973; Schwartz, 1992) measured a wide variety of possible values and aggregated them through factor analysis to define a smaller set of core values. Schwartz (1992) and Rokeach (1973) both justified their lists by pointing to the fundamental social and biological needs of human beings.

Moral foundations theory (Haidt & Graham, 2007; Haidt & Joseph, 2004) also tries to reduce the panoply of values, but with a different strategy: We began not by measuring moral values and factor analyzing them but by searching for the best links between anthropological and evolutionary accounts of morality. Our idea was that moral intuitions derive from innate psychological mechanisms that coevolved with cultural institutions and practices (Richerson & Boyd, 2005). These innate but modifiable mechanisms (Marcus, 2004) provide parents and other socializing agents the moral "foundations" to build on as they teach children their local virtues, vices, and moral practices. (We prefer the term *virtues* to *values* because of its narrower focus on morality and because it more strongly suggests cultural learning and construction.)

To find the best candidate foundations, Haidt and Joseph (2004) surveyed lists of virtues from many cultures and eras, along with taxonomies of morality from anthropology (Fiske, 1992; Shweder et al., 1997), psychology (Schwartz & Bilsky, 1990), and evolutionary theories about human and primate sociality (Brown, 1991; de Waal, 1996). They looked for matches—cases of virtues or other moral concerns found widely (though not necessarily universally) across cultures for which there were plausible and published evolutionary explanations of related psychological mechanisms. Two clear matches were found that corresponded to Turiel's (1983) moral domain and Shweder et al.'s (1997) ethics of autonomy. The widespread

human obsession with fairness, reciprocity, and justice fits well with evolutionary writings about reciprocal altruism (Trivers, 1971). And the widespread human concern about caring, nurturing, and protecting vulnerable individuals from harm fits well with writings about the evolution of empathy (de Waal, 2008) and the attachment system (Bowlby, 1969). These two matches were labeled the Fairness/reciprocity foundation and the Harm/care foundation, respectively. It is noteworthy that these two foundations correspond to the "ethic of justice" studied by Kohlberg (1969) and the "ethic of care" that Gilligan (1982) said was an independent contributor to moral judgment. We refer to these two foundations as the *individualizing foundations* because they are (we suggest) the source of the intuitions that make the liberal philosophical tradition, with its emphasis on the rights and welfare of individuals, so learnable and so compelling to so many people.

Haidt and Joseph (2004) found, however, that most cultures did not limit their virtues to those that protect individuals. They identified three additional clusters of virtues that corresponded closely to Shweder et al.'s (1997) description of the moral domains that lie beyond the ethics of autonomy. Virtues of loyalty, patriotism, and self-sacrifice for the group, combined with an extreme vigilance for traitors, matched recent work on the evolution of "coalitional psychology" (Kurzban, Tooby, & Cosmides, 2001). Virtues of subordinates (e.g., obedience and respect for authority) paired with virtues of authorities (such as leadership and protection) matched writings on the evolution of hierarchy in primates (de Waal, 1982) and the ways that human hierarchy became more dependent on the consent of subordinates (Boehm, 1999). These two clusters comprise most of Shweder et al.'s "ethic of community." And lastly, virtues of purity and sanctity that play such a large role in religious laws matched writings on the evolution of disgust and contamination sensitivity (Rozin, Haidt, & McCauley, 2000). Practices related to purity and pollution must be understood as serving more than hygienic functions. Such practices also serve social functions, including marking off the group's cultural boundaries (Soler, 1973/1979) and suppressing the selfishness often associated with humanity's carnal nature (e.g., lust, hunger, material greed) by cultivating a more spiritual mindset (see Shweder et al.'s, 1997, description of the "ethic of divinity"). We refer to these three foundations (Ingroup/loyalty, Authority/respect, and Purity/sanctity) as the *binding foundations*, because they are (we suggest) the source of the intuitions that make many conservative and religious moralities, with their emphasis on group-binding loyalty, duty, and self-control, so learnable and so compelling to so many people.

If the foundations are innate, then why do people and cultures vary? Why are there liberals and conservatives? We take our understanding of innateness from Marcus (2004), who stated that innate "does not mean unmalleable; it means organized in advance of experience." He uses the metaphor that genes create the first draft of the brain, and experience later edits it. We apply Marcus's metaphor to moral development by assuming that human beings have the five foundations as part of their evolved first draft, but that, as for nearly all traits, there is heritable variation (Bouchard, 2004; Turkheimer, 2000). Many personality traits related to the foundations have already been shown to be moderately heritable, including harm avoidance (Keller, Coventry, Heath, & Martin, 2005) and right-wing authoritarianism (McCourt, Bouchard, Lykken, Tellegen, & Keyes, 1999). But foundations are not values or virtues. They are the psychological systems that give children feelings and intuitions that make local stories, practices, and moral arguments more or less appealing during the editing process.

Returning to our definition of moral systems as "interlocking sets of values, practices, institutions, and evolved psychological mechanisms" that function to suppress selfishness, it should now be clear that the foundations are the main "evolved psychological mechanisms" that are part of the "first draft" of the moral mind. Elsewhere we describe in more detail the role of narrative, social construction, and personal construction in the creation of adult moral and ideological identities (Haidt, Graham, & Joseph, in press; Haidt & Joseph, 2007).

Overview of Studies

In four studies we examined the moralities of liberals and conservatives using four different methods that varied in the degree to which they relied on consciously accessible beliefs versus more intuitive responses. In Study 1, a large international sample of respondents rated the *moral relevance* of foundation-specific concerns. In Study 2, we examined liberals' and conservatives' *moral judgments* as a function of both explicit and implicit political identity. In Study 3, we elicited stronger visceral responses by presenting participants with *moral trade-offs* by asking them how much money they would require to perform foundation-violating behaviors. In Study 4, we analyzed *moral texts*—religious sermons delivered in liberal and conservative churches—to see if speakers in the different moral communities spontaneously used foundation-related words in different ways. In all four studies we found that liberals showed evidence of a morality based primarily on the individualizing foundations (Harm/care and Fairness/reciprocity), whereas conservatives showed a more even distribution of values, virtues, and concerns, including the two individualizing foundations and the three binding foundations (Ingroup/loyalty, Authority/respect, and Purity/sanctity).

Study 1: Moral Relevance

For our first test of the moral foundations hypothesis we used the most direct method possible: We asked participants to rate how relevant various concerns were to them when making moral judgments. Such a decontextualized method can be appropriate for gauging moral values, as values are said to be abstract and generalized across contexts (Feldman, 2003; Schwartz, 1992). But given the limits of introspection (Nisbett & Wilson, 1977) and the intuitive quality of many moral judgments (Haidt, 2001), such a method does not necessarily measure how people actually make moral judgments. As such, reports of moral relevance are best understood as self-theories about moral judgment, and they are likely to be concordant with explicit reasoning during moral arguments. We predicted that liberals would rate concerns related to the individualizing foundations as being more relevant than would conservatives, whereas that conservatives would endorse concerns related to the binding foundations as being more relevant than would liberals.

Method

Participants

Participants were 1,613 adults (47% female, 53% male; median age 29) who had registered at the Project Implicit website (https://

implicit.harvard.edu/) and were randomly assigned to this study. During registration, political self-identification was reported on a 7-point scale anchored by *strongly liberal* and *strongly conservative*, with *moderate* at the midpoint. Overall, 902 participants rated their political identity as liberal, 366 as moderate, and 264 as conservative. Eighty-one participants did not answer the question. Gender, age, household income, and education level were also assessed at registration.

Materials

Participants first read "When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking?" They then rated 15 moral relevance items (see Appendix A) on 6-point scales anchored by the labels *never relevant* and *always relevant*. The items were written to be face-valid measures of concerns related to the five foundations, with the proviso that no item could have an obvious relationship to partisan politics. For example, a Fairness item stated "Whether or not someone was denied his or her rights." By avoiding mention of specific "culture war" topics such as gun rights or gay rights, we minimized the extent to which participants would recognize the items as relevant to political ideology and therefore draw on knowledge of what liberals and conservatives believe to guide their own ratings. Cronbach's alphas for the three-item measures of each foundation were .62 (Harm), .67 (Fairness), .59 (Ingroup), .39 (Authority), and .70 (Purity). (For information on the factor structure of the moral foundations, see the General Discussion below and refer to the supplement available at www.moralfoundations.org).

A 16th item stated "Whether or not someone believed in astrology." This item served as a check for whether participants paid attention, understood the scale, and responded meaningfully. We expected that high ratings of relevance on this item reflected careless or otherwise uninterpretable performance on the rest of the scale. Sixty-five participants (4.0%) were excluded because they used the upper half of the relevance scale in response to this item.[1]

Procedure

The study pool at Project Implicit randomly assigns participants to one of dozens of studies each time they return to the site (see Nosek, 2005, for more information about the Virtual Laboratory). After random assignment to this study, participants completed the relevance items in an order randomized for each participant. They also completed an Implicit Association Test (IAT) that is not relevant for this report and is not discussed further. The order of implicit and explicit tasks was randomized and had no effect on the results.

Results

Figure 1 shows foundation scores (the average of the three relevance items for each foundation) as a function of self-rated political identity. As Figure 1 shows, the negative slopes for Harm and Fairness (the individualizing foundations) means that conservatives rated these issues as less relevant to their moral judgments than did liberals. Conversely, the positive slopes for Ingroup, Authority, and Purity (the binding foundations) means that conservatives rated these issues as more relevant to their moral judgments than did liberals. (These patterns were consistent across nearly all individual items for this and the other studies.)

We tested whether the effects of political identity persisted after partialing out variation in moral relevance ratings for other demographic variables. We created a model representing the five foundations as latent factors measured by three manifest variables each, simultaneously predicted by political identity and four covariates: age, gender, education level, and income. This model is shown in Figure 2; for clarity, we show the standardized regression estimates for politics only. Including the covariates, political identity still predicted all five foundations in the predicted direction, all ps $< .001$. Political identity was the key explanatory variable: It was the only consistent significant predictor (average $|\beta| = .25$; range .16 to .34) for all five foundations.[2]

To test whether this moral foundations pattern was unique to the United States, we created a multigroup version of the model shown in Figure 2. We had enough participants from the United States ($n = 695$) and the United Kingdom ($n = 477$) to create separate groups, and we put participants from other nations ($n = 417$) into a third group (the countries most represented in this third group were Argentina, $n = 61$, and Canada, $n = 44$). We first constrained the individual item loadings to be the same across the three groups, to test whether people in different nations interpreted the items or used the scale differently. This model was not significantly different from the unconstrained model, $\Delta\chi^2(20) = 42.27$, $\Delta\varepsilon_a = .01$, *ns*, suggesting that the factor loadings were invariant across our three nation groups. We then added equality constraints across nation groups to the regression estimates from political identity predicting each of the five foundations, to see if politics had differential effects across nations. This model was also not different from the fully unconstrained model, $\Delta\chi^2(30) = 47.79$, $\Delta\varepsilon_a = .02$, *ns*, indicating that the effects of politics on foundation relevance scores were not different across nations. This suggests that the relations between political identity and moral foundations are consistent across our U.S., U.K., and "other nations" groups. In all three groups the individualizing foundations were endorsed more strongly by liberals than conservatives, and the binding foundations were endorsed more strongly by conservatives than liberals. Further, in all three nation groups liberals were more likely than conservatives to consider individualizing concerns more morally relevant than binding concerns.

Because the latent variable model does not provide insight into the rank ordering of the different sets of foundations, we compared them using a repeated-measures general linear model including politics as a covariate. For the sample as a whole, the aggregated moral relevance ratings for individualizing foundations were higher than the aggregated ratings for the binding foundations, $F(1, 1207) = 1{,}895.09$, $p < .001$, $\eta_p^2 = .61$, and this effect was moderated by politics, $F(1, 1207) = 224.34$, $p < .001$, $\eta_p^2 = .16$, such that the more

[1] Although this cutoff criterion was set a priori, we also tested to see if these participants differed systematically from other participants. These 65 participants had significantly higher individual means and lower *SD*s on all five subscales, suggesting they were more likely to have been giving consistently high ratings, perhaps due to carelessness. They did not differ from the rest of the sample in terms of gender, age, or political identity. The removal of their data did not significantly change the results.

[2] Average $|\beta|$s from the model shown in Figure 2 were .05 for age, .09 for gender, .08 for income, and .06 for education.

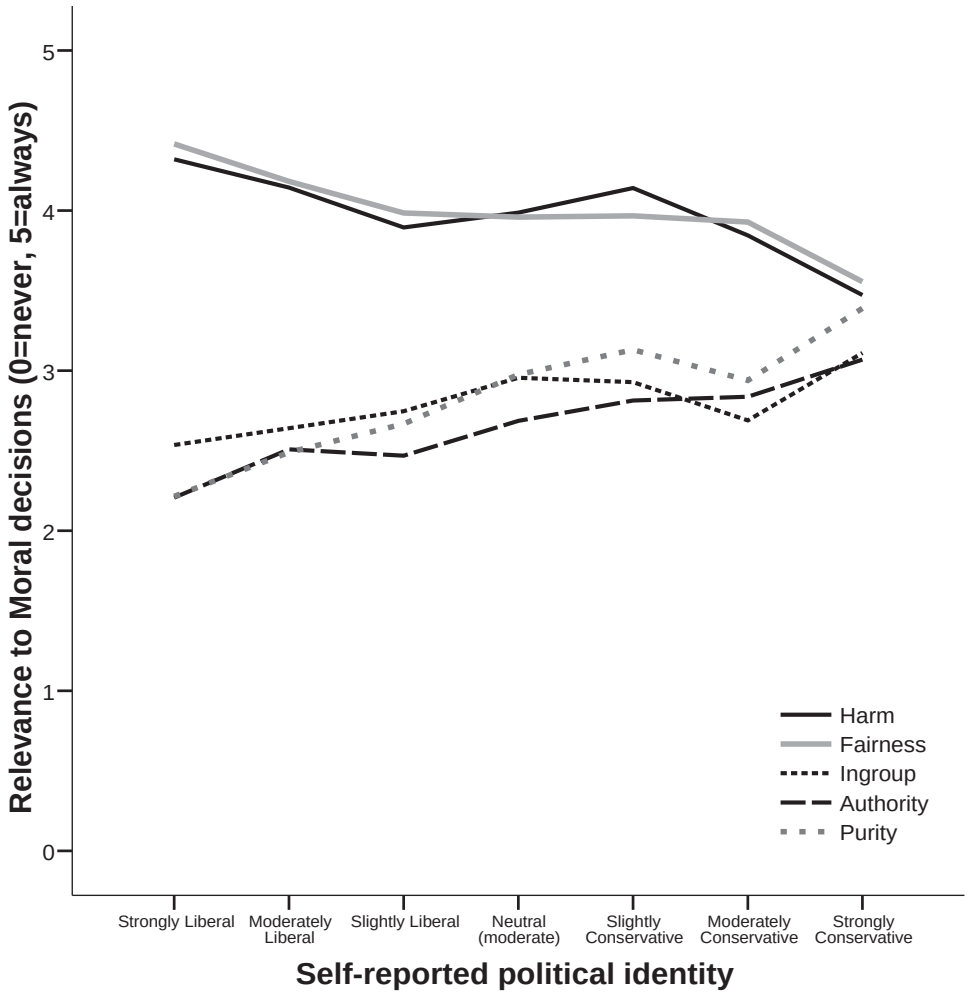

Figure 1. Relevance of moral foundations across political identity, Study 1.

liberal participants showed a greater difference between the individualizing and binding moral foundations.

Discussion

Study 1 provides initial empirical support for the moral foundations hypothesis. We sampled broadly across the universe of potential moral concerns. Had we limited the sampling to issues related to Harm/care and Fairness/reciprocity (Turiel, 1983), liberals would have appeared to have more (or more intense) moral concerns than conservatives (cf. Emler, Renwick, & Malone, 1983). By asking about issues related to binding groups together—namely, Ingroup/loyalty, Authority/respect, and Purity/sanctity—we found a more complex pattern. The moral thinking of liberals and conservatives may not be a matter of more versus less but of different opinions about what considerations are relevant to moral judgment. Further, the observed differences were primarily a function of political identity and did not vary substantially or consistently by gender, age, household income, or education level, suggesting that these effects could be a general description of moral concerns between the political left and right.

Importantly, the differences between liberals and conservatives were neither binary nor absolute. Participants across the political spectrum agreed that individualizing concerns are very relevant to moral judgment. Even on the binding foundations, liberals did not (on average) indicate that these were *never* relevant to moral judgment. As is the case with politics in general, the most dramatic evidence for our hypotheses came from partisans at the extremes.

The moral relevance ratings were self-assessments of what factors matter to a person when making moral judgments; they were not actual moral judgments. We expand the investigation to moral judgments in Study 2.

Study 2: Moral Judgments

In Study 2, we retained the abstract moral relevance assessments from Study 1 and added more contextualized and concrete items that could more strongly trigger the sorts of moral intuitions that are said to play an important role in moral judgment (Haidt, 2001). We generated four targets of judgment for each foundation: one normative ideal (e.g., "It can never be right to kill a human being" for Harm), one statement about government policy (e.g., "The government should

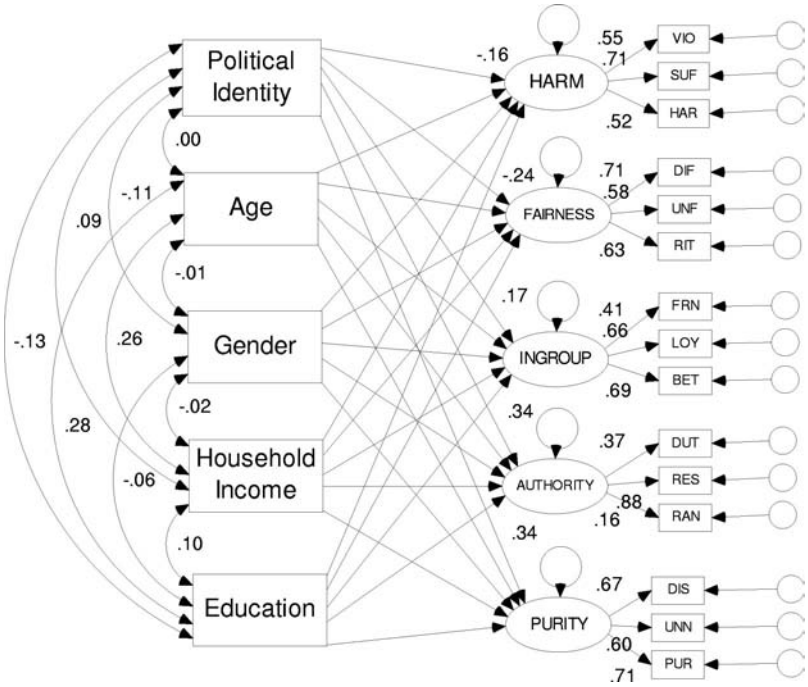

Figure 2. Latent variable model testing multiple predictors of moral foundation relevance assessments, Study 1. Numbers to the left of foundations indicate standardized regression estimates of the effects of political identity; positive numbers indicate higher for conservatives, negative numbers indicate higher for liberals. Parameters estimated = 90, $\Delta\chi^2(140) = 2{,}016.85$, $\varepsilon_a = .093$. The abbreviations at the right stand for the items in the scale given in Appendix A. VIO = violence; SUF = suffering; HAR = harm; DIF = differently; UNF = unfair; RIT = rights; FRN = friend; LOY = loyalty; BET = betray; DUT = duties; RES = respect; RAN = rank; DIS = disgust; UNN = unnatural; PUR = purity.

strive to improve the well-being of people in our nation, even if it sometimes happens at the expense of people in other nations" for Ingroup), one hypothetical scenario (e.g., "If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty" for Authority), and one positive virtue (e.g., "Chastity is still an important virtue for teenagers today, even if many don't think it is" for Purity; see Appendix B). This approach requires participants to make moral judgments about cases that instantiate or violate the abstract principles they rated in response to our "relevance" questions.

In addition to asking participants to self-report their political identification on a single-item liberal–conservative scale, we also gave participants an IAT (see Nosek, Greenwald, & Banaji, 2006, for a review) measuring implicit political identity (association strengths between liberal–conservative and self–other) to test whether automatic political identities are predictive of differences in assessments of moral relevance and moral judgments above and beyond explicit assessments of one's political identity.

Method

Participants

Participants were 2,212 volunteers (62% female, 38% male; median age 32) from the research pool at Project Implicit. The automated study assignment excluded visitors who had participated in Study 1 and only included citizens or residents of the United States because some measures contained U.S. political figures. In the sample 1,174 participants were liberal, 538 were moderate, and 500 were conservative. Data from 77 participants were excluded because of high ratings on the astrology item; the removal of their data did not significantly alter any of the results.

Materials

Moral relevance items. Relevance items were the same ones used in Study 1, with one or two additional items for each of the five foundations (see Appendix A). Cronbach's alphas for each foundation were .71 (Harm), .70 (Fairness), .71 (Ingroup), .64 (Authority), and .76 (Purity). There were three different versions of the relevance items—answered as oneself (same as Study 1), as a typical liberal, or as a typical conservative.

Moral judgment items. Moral judgment statements were rated on a 6-point scale, from *strongly disagree* to *strongly agree*. Cronbach's alphas of the judgment items for each foundation were .50 (Harm), .39 (Fairness), .24 (Ingroup), .64 (Authority), and .74 (Purity). As with relevance items, there were three versions of the moral judgment items—answered as oneself, as a typical liberal, or as a typical conservative. For both types of items, only results for the self versions are reported here.

Political identity. Explicit political identity was measured during registration as described in Study 1. Implicit political identity was measured with the IAT. The IAT assesses associations among

two concept categories (liberals and conservatives) and two identity attributes (self and other). Stimuli were pictures of well-known U.S. political figures and words corresponding to "self" or "other." The IAT was scored with the *D* algorithm recommended by Greenwald, Nosek, and Banaji (2003).

Procedure

To keep the study short, and because we had high power with a large sample, we used a planned incomplete design in which participants were randomly assigned to receive four of the six self-report measures (self, typical liberal, and typical conservative versions of the relevance and judgments measure). As such, the *N*s for any given measure are, by design, approximately 2/3 of the total sample. Participants completed the IAT and the four self-report measures in an order randomized for each participant.

Results

Moral Relevance

Moral relevance ratings replicated findings from Study 1: Self-reported conservatives endorsed the individualizing foundations less and binding foundations more than self-reported liberals did. We created a latent variable model (parameters estimated = 114), $\chi^2(320) = 3{,}712.26$, $\varepsilon_a = .07$, identical in structure to the model shown in Figure 2, with self-reported political identity and four covariates (age, gender, household income, and education) predicting each of the five foundations. With the covariates included, explicit political identity still predicted moral relevance assessments in the predicted direction for Harm ($\beta = -.27$), Fairness ($\beta = -.36$), Ingroup ($\beta = .11$), Authority ($\beta = .39$), and Purity ($\beta = .38$), all ps $< .001$.

Moral Judgments

Considered by-item and in aggregate, the moral foundations hypothesis was supported for direct moral judgments as well: Conservatives on average agreed with individualizing foundation judgments less than liberals and with binding foundation judgments more. Average moral judgments for each foundation are plotted by explicit political identity in Figure 3. We created a latent variable model (parameters estimated = 105), $\chi^2(245) = 2{,}414.62$, $\varepsilon_a = .06$, with self-reported political identity and the same four covariates predicting each of the five foundations. With the four other demographic factors included, explicit political identity still predicted moral judgments in the predicted direction for Harm ($\beta = -.32$), Fairness ($\beta = -.43$), Ingroup ($\beta = .67$), Authority ($\beta = .62$), and Purity ($\beta = .57$), all ps $< .001$.

Ratings for individualizing foundations were higher than ratings for the binding foundations for both relevance items, $F(1, 1205) = 1{,}215.62$, $p < .001$, $\eta_p^2 = .50$, and judgment items, $F(1, 1200) = 635.58$, $p < .001$, $\eta_p^2 = .35$, and this effect was moderated by politics for both relevance items, $F(1, 1205) = 450.42$, $p < .001$, $\eta_p^2 = .27$, and judgment items, $F(1, 1200) = 649.40$, $p < .001$, $\eta_p^2 = .35$, such that the more liberal participants showed the greatest differentiation.

Implicit Political Identity

Implicit political identity correlated strongly with self-reported political identity ($r = .63$, $p < .001$). Likewise, the relationship between implicit political identity and the moral foundations—both relevance and judgments—replicated the patterns for explicit political identity. Latent variable models containing implicit political identity instead of self-reported political identity yielded the same pattern of results as those reported above. This confirms, at minimum, that the differences in moral relevance and moral judgment ratings do not depend on how people interpret the single-item political identity measure.

Despite their strong positive correlation, implicit and explicit political identity may each provide incremental validity of moral foundation relevance and judgment ratings. Implicit and explicit political identities were entered as simultaneous predictors (along with age, gender, household income, and education) of foundation scores in latent variable models for moral relevance and moral judgments. For moral relevance ratings, explicit political identity remained a significant predictor for all foundations ($|\beta|$s = .26 to .34, all ps $< .001$) except Ingroup ($|\beta| = .05$, *ns*), and implicit political identity showed some incremental predictive validity (above and beyond explicit political identity) for the binding foundations ($|\beta|$s = .10 to .15, all ps $< .05$) but not for the individualizing foundations ($|\beta|$s $< .05$, *ns*).

We expected that implicit political identity would show stronger incremental validity beyond explicit political identity in predicting moral judgments, as applications of moral intuitions and reasons rather than self-theories about moral judgment. Both implicit and explicit political identity showed incremental predictive validity over the other for all five foundations ($|\beta|$s = .16 to .52, all ps $<$ .001). This is particularly impressive considering that implicit and explicit political identities were strongly correlated, leaving substantially reduced independent variance for prediction in the simultaneous models. Implicit political identity was a stronger simultaneous predictor of judgments than of relevance assessments for all five foundations.

Discussion

Study 2 replicated the political differences in moral relevance ratings observed in Study 1 and extended support of the moral foundations hypothesis to concrete moral judgments. Liberals were more concerned than conservatives about issues of Harm and Fairness, whereas conservatives were more concerned than liberals about issues related to Ingroup, Authority, and Purity. Also, for both moral relevance and moral judgments, the effects were observed across both explicit and implicit political identities. As before, we found a convergence pattern in which liberals made a big distinction between the individualizing and binding foundations, whereas conservatives—particularly strong conservatives—weighted the two kinds of concerns more or less equally (see Figure 3). Interestingly, implicit political identity contributed unique predictive validity beyond that of self-reported political identity for the moral judgments measure (all five foundations) but did so more weakly for the moral relevance measure (and only for the binding foundations). This suggests that moral judgments are influenced by more than explicit self-theories of moral relevance. Asking someone their political identity was largely sufficient for

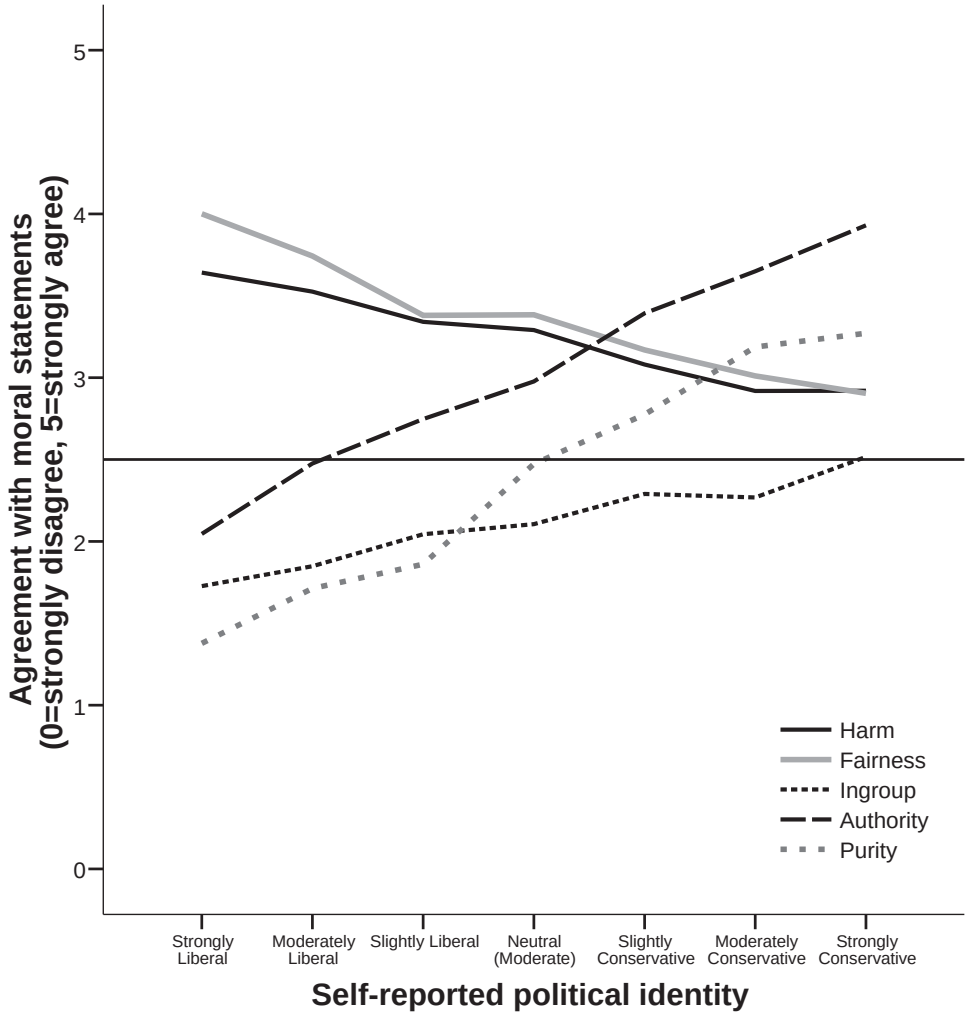

Figure 3. Agreement with moral statements across political identity, Study 2. The horizontal line at 2.5 indicates division of agreement and disagreement (2 indicates slight disagreement and 3 indicates slight agreement).

predicting what they said would be relevant to them in making moral judgments, but measuring their implicit political identity added uniquely predictive validity for moral judgments themselves.

Study 3: Moral Trade-Offs

In Study 3, we adapted Tetlock's work on sacred values and taboo trade-offs (Tetlock, 2003; Tetlock, Kristel, Elson, Green, & Lerner, 2000) to make moral judgments more personal and visceral than they had been in Studies 1 and 2. Tetlock et al. (2000, p. 853) defined sacred values as "any value that a moral community explicitly or implicitly treats as possessing infinite or transcendental significance that precludes comparisons, trade-offs, or indeed any other mingling with bounded or secular values." Participants confronted with choices that involved trading off a sacred value (such as human life) for a profane value (such as money saved by a hospital) showed resistance to the task and feelings of pollution afterwards, as if it were impure even to contemplate the trade-off.

We generated five potential taboo violations for each moral foundation. For example, how much money would someone have to pay you to: Kick a dog in the head (Harm)? Renounce your citizenship (Ingroup)? Get a blood transfusion from a child molester (Purity)? We hypothesized that because everyone's morality relies heavily on the individualizing foundations, neither liberals nor conservatives would be happy to "prostitute" their values by accepting money in exchange for violating them. We predicted that liberals would be less likely to see trade-offs related to the binding foundations as violations of sacred values and, therefore, would be more willing to perform these actions for some amount of money.

Method

Participants

Participants were 8,193 adults (40% female, 60% male; median age 34) who volunteered at www.yourmorals.org; 6,728 were from the United States, 513 were from Europe, 281 were from Canada,

183 were from Latin America, and 488 were from other areas. During registration at the site, participants self-reported their political identity. The response options were the 7-point liberal–conservative scale from Study 1 plus options for *libertarian*, *other*, and *don't know/not political*. In the sample 4,679 participants self-identified as liberal, 847 as moderate/neutral, 1,093 as conservative, 1,034 as libertarian, 304 as "other," and 233 chose "don't know/not political." Three participants did not answer the question. We focus our analyses on the 6,619 participants who chose an option on the 7-point liberal–conservative scale.

Materials and Procedure

Participants first self-selected to complete a one-page survey labeled "Sacredness Survey: What Would You Do for a Million Dollars?" from a list of 15–20 surveys. They then read the following:

> Try to imagine actually doing the following things, and indicate how much money someone would have to pay you (anonymously and secretly) to be willing to do each thing. For each action, assume that nothing bad would happen to you afterwards. Also assume that you cannot use the money to make up for your action. If you prefer to think about Euros or any other currency, please do. The exact amounts are not very important.

Response options given after each action were *$0 (I'd do it for free)*, *$10*, *$100*, *$1,000*, *$10,000*, *$100,000*, *a million dollars*, and *never for any amount of money*. Below these instructions participants found a list of 26 actions (listed in Appendix C), presented in an order randomized for each participant. Cronbach's alphas for each foundation were .69 (Harm), .69 (Fairness), .69 (Ingroup), .67 (Authority), and .58 (Purity).

Results

Below we report analyses on the full 8-point scale as a continuous index of unwillingness to perform the actions. All findings also held using a stricter binary criterion of sacredness as the refusal to do the action for any amount of money (vs. selecting any dollar value).

Foundation scores (the average response on the five items for each foundation) are plotted across political identity in Figure 4. As this figure shows, Fairness violations were considered the most taboo overall, with people across the political spectrum choosing responses whose average was closest to 7 (*a million dollars*). Liberals required slightly more money on average to violate the Harm foundation. However, conservatives required substantially higher amounts to violate the three binding foundations.

Because the taboo trade-off measure gauged the "sacredness" of each foundation, we were concerned that political effects may have been driven by the differential religious attendance of liberals and conservatives. We created a latent variable model (parameters estimated = 123), $\chi^2(404) = 25{,}148.49$, $\varepsilon_a = .09$, simultaneously predicting the five foundation sacredness scores with politics and four covariates: age, gender, education, and religious attendance.[3] With covariates included, political identity still predicted sacredness scores in the predicted direction for Ingroup ($\beta = .42$), Authority ($\beta = .31$), and Purity ($\beta = .11$), all ps $< .001$. However, in this model politics weakly predicted sacredness scores for Harm ($\beta = .06$) and Fairness ($\beta = .07$) in directions opposite to predictions (ps $< .001$). As predicted, the aggregated moral sacredness ratings for individualizing foundations were higher than the aggregated ratings for binding foundations, $F(1, 6596) = 3{,}689.66$, $p < .001$, $\eta_p^2 = .36$, and this effect was moderated by politics, $F(1, 6596) = 236.28$, $p < .001$, $\eta_p^2 = .18$; the more liberal participants showed a greater difference between the individualizing and binding moral foundations for their overall degree of unwillingness to violate the foundations.

Because we had a large sample of libertarians, who are usually ignored in political–psychological research, we compared their sacredness reactions to those of liberals and conservatives. Overall, libertarians showed less refusal to violate the foundations for money than did liberals or conservatives. Each of the five average *never* scores for libertarians was lower than the corresponding score for conservatives (all ts > 9.5, ps $< .001$, ds > 0.43), and each was lower than the corresponding score for liberals (all ts > 3.0, ps $< .01$, ds > 0.09).

Discussion

The results supported the moral foundations hypothesis: Liberals refused to make trade-offs on most of the individualizing items but were more willing to perform actions that violated the three binding foundations. Conservatives, in contrast, showed a more even distribution of concerns and reported more unwillingness than did liberals to accept money to act in ways that violate Ingroup, Authority, and Purity concerns.

The results also challenged our previous finding that liberals care more than conservatives about Harm and Fairness issues. Do these results show that we were premature in concluding, from Studies 1 and 2, that liberals care more about Harm and Fairness issues, on average, than do conservatives? We do not think so. Rather, we think there is a general across-the-board political difference on the permissibility of making moral trade-offs. It is no coincidence that John Stuart Mill (1859/2003) is a founder of both liberalism and utilitarianism. Liberals generally justify moral rules in terms of their consequences for individuals; they are quite accustomed to balancing competing interests and to fine-tuning social institutions to maximize their social utility. Conservatives, in contrast, are more likely to respect rules handed down from God (for religious conservatives) or from earlier generations (see Muller, 1997). Conservatives are more often drawn to deontological moral systems in which one should not break moral rules even when the consequences would, overall, be positive (Graham, Nosek, Haidt, Hawkins, & Iyer, 2008). This deontological reluctance to make trade-offs was not triggered by the methods used in Studies 1 and 2, but, we suspect, it elevated conservatives' scores on all foundations in the present study.

A further novel finding of the present study was that libertarians had the lowest sacredness scores on all five foundations. This finding supports Tetlock's predictions that free-market libertarians would be the least outraged and most open to contractualizing moral violations (Tetlock et al., 2000; Tetlock, Peterson, & Lerner, 1996). The differences were particularly stark between libertarians and conservatives on the three binding foundations. Libertarians

[3] Household income, included in all latent variable models for Studies 1 and 2, was not available in this dataset. Religious attendance was not available in Studies 1 and 2.

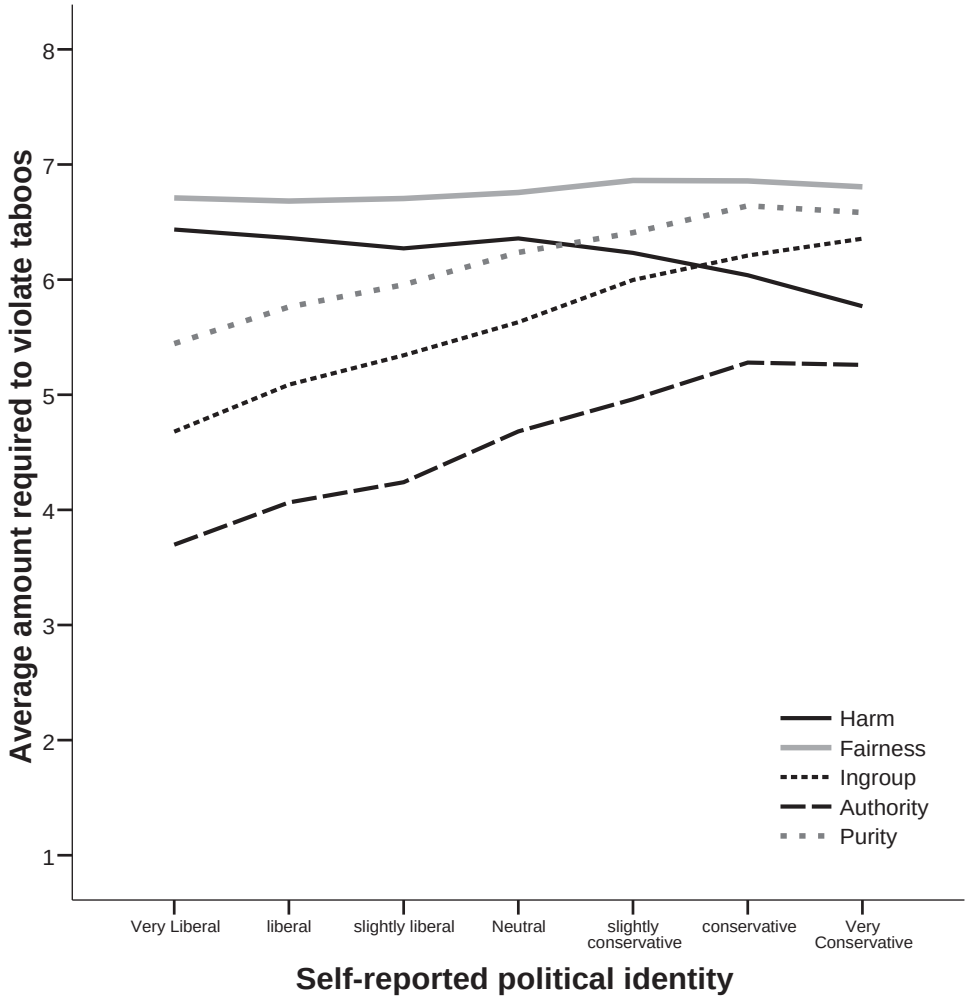

Figure 4. Average amount required to violate foundation-related taboo trade-offs across political identity, Study 3. Response scale was as follows: 1 = *$0 (I'd do it for free)*, 2 = *$10*, 3 = *$100*, 4 = *$1,000*, 5 = *$10,000*, 6 = *$100,000*, 7 = *a million dollars*, 8 = *never for any amount of money*.

may support the Republican Party for economic reasons, but in their moral foundations profile we found that they more closely resemble liberals than conservatives.

From Studies 1–3 we steadily increased the degree to which participants had gut feelings—not just conscious self-theories—upon which to base their responses. But all of these methods relied on responses to hypothetical questions, free from social context and real-world costs. To test our hypothesis in a more ecologically valid setting, in Study 4 we analyzed behavior in public settings: sermons delivered in liberal and conservative churches.

Study 4: Moral Texts

Words do the work of politics. As Lakoff (2004) has shown, liberals and conservatives use different words to create overarching "frames" that make policies seem morally good or bad. Writing from the other end of the political spectrum, Luntz (2007) argued that the Republican Party's success in the 1990s was due in large part to its ability to find "words that work."

We sought out speeches delivered to live audiences that we could analyze to test the moral foundations hypothesis. We first examined Republican and Democratic candidates' convention speeches, but we discovered that those speeches were so full of policy proposals, and of moral appeals to the political center of the country, that extracting distinctive moral content was unfeasible using the simple word-count procedures we describe below. We turned instead to sermons delivered in liberal and conservative churches. Sermons typically contain parables or direct instruction on the morally right way to live (Spilka, Hood, & Gorsuch, 1985). They are delivered to and within the moral community of the congregation, and they are generally written by the speaker, not by speech writers. Sermons thus have an advantage over overtly political texts in that they are more likely to address the moral concerns of a specific and cohesive moral community, rather than the concerns of a broad and heterogeneous polity. We identified conservative and liberal Christian denominations, obtained transcribed sermons

from those denominations, and then analyzed their word use related to each of the five moral foundations.

Quantitative content analysis of texts is considered the most objective approach to linguistic data (Silverman, 1993); it involves creating categories of words and obtaining objective counts of instances of those categories within each text. In this study we used the Linguistic Inquiry and Word Count program (LIWC; see Pennebaker, Francis, & Booth, 2003). One disadvantage of LIWC is that it does not identify individual word frequencies. We created a supplemental program (available at www.moralfoundations.org) to identify the words that were driving the liberal–conservative differences. Then, independent raters read these words in context and rated the degree to which the speaker was endorsing or rejecting the relevant moral foundation.

Method

We found multiple categorization schemes to identify liberal and conservative Christian denominations (Marnell, 1974; Shortridge, 1976; Spilka et al., 1985; Woodberry & Smith, 1998). Unitarian Universalist was consistently regarded as the most liberal church, and Southern Baptist was regarded as the most conservative of the major Christian denominations; these two denominations were also found to be the most politically active at the pulpit (Guth, 1996). We then used the search engine Google to locate databases of sermons from Unitarian and Southern Baptist churches. We chose only databases or church websites that contained sermons in text form, rather than as audio files. Sermons were delivered between 1994 and 2006, and a majority (>80%) were delivered between 2003 and 2006. A total of 69 liberal (Unitarian) sermons and 34 conservative (Southern Baptist) sermons were analyzed.

We created a LIWC dictionary, beginning with the core concepts for each of the five foundations: harm and care, fairness and reciprocity, ingroup and loyalty, authority and respect, and purity and sanctity. Dictionary development had an expansive phase and a contractive phase, all occurring before reading the sermons. In the expansive phase Jesse Graham and five research assistants generated as many associations, synonyms, and antonyms for the base foundation words as possible, using thesauruses and conversations with colleagues. This included full words and word stems (for instance, *nation** covers *national*, *nationalistic*, etc.). The resulting lists included foundation-supporting words (e.g., *kindness*, *equality*, *patriot*, *obey*, *wholesome*), as well as foundation-violating words (e.g., *hurt*, *prejudice*, *betray*, *disrespect*, *disgusting*). In the contractive phase, Jesse Graham and Jonathan Haidt deleted words that seemed too distantly related to the five foundations and also words whose primary meanings were not moral (e.g., *just* more often means *only* than *fair*). See Appendix D for the final dictionary of 295 words and word stems.

After running the basic LIWC analyses with this dictionary, we tested which words contributed most to the group differences and then read them in context to ensure that the most influential words were being used in support of the moral foundation. For example, "Don't let some self-interested ecclesiastical or government authority tell you what to believe, but read the Bible with your own eyes and open your heart directly to Jesus" was a sentence from a Unitarian sermon. It contributed to the Authority raw word count (by including the word *authority*), but the context reveals that the speaker is in fact questioning or rejecting the Authority foundation.

With our supplemental program, we counted word frequencies for all words in our LIWC dictionary and computed the liberal–conservative difference in percent usage of each word. We selected the 23 words and word stems[4] that yielded more than a 0.02% difference. For each of the 3,281 uses of these words, we copied the surrounding context of 2–3 sentences into a spreadsheet and then scrambled its rows.

Four raters scored each passage, blind to its origins, by assigning it a score of 1 if the passage supported or was consistent with the values or concerns of the relevant foundation, a score of −1 if the passage seemed to negate or reject the foundation in question, or a score of 0 if the contextual usage was unclear or irrelevant to the foundation. Every passage was rated by two or three raters, and the raters achieved a reliability of $\alpha = .79$. Ratings from multiple raters were averaged to create a "contextually validated usage" score for each word. These usage scores are more valid indicators than the raw counts of how speakers value each of the five foundations.

Results

The raw percentages of words related to each foundation are given in Table 1. As the first line shows, 0.44% of all the 177,629 words in our liberal sermon corpus were among the 51 words in the Harm category of our LIWC dictionary, whereas only 0.26% of all the 136,706 words in our conservative sermon corpus fell into this category. These raw percentages show the predicted effects for four of the five foundations: liberals used Harm and Fairness words more frequently than did conservatives, whereas conservatives used Authority and Purity words more frequently than did liberals. The only violation of our prediction occurred for words in the Ingroup category, which were used more frequently by liberal than conservative speakers.

As Table 2 shows, however, the contextually validated ratings support the moral foundations hypothesis for all five foundations. Reading the difference-driving words in context, we found that liberal speakers expressed concerns more in line with Harm and Fairness than did conservative speakers, and conservative speakers expressed concerns more in line with Ingroup, Authority, and Purity than did liberal speakers.

Notably, the effect size on the Ingroup foundation reverses sign and conforms to our prediction. This reversal occurred because the words *communit**, *group*, *individual**, and *nation** were used more frequently in liberal sermons, but analysis of these words in context revealed that liberals were much more likely than conservatives to use these words in order to reject the foundational concerns of ingroup loyalty and group solidarity. Usage ratings for liberal uses of *group* were close to zero, and usage ratings for *individual** were negative, indicating many uses rejecting ingroup values or asserting opposing values like independence and individual autonomy. Of the 23 words rated in context, 22 showed liberal–conservative differences in the predicted direction, and 18 of these differences were significant ($p < .05$).

[4] *violen** and *war* (for Harm); *justice* and *justifi** (for Fairness); *communit**, *group*, *individual**, and *nation** (for Ingroup); *authorit**, *command*, *father*, *law*, *leader**, *mother*, *obedien**, *obey*, *rebel**, *submi**, and *tradition** (for Authority); *holy*, *sin*, *sinner**, and *sins* (for Purity).

Table 1
Raw Percentages of Foundation-Related Words in Liberal and Conservative Sermons, Study 4

Foundation	Percentage: Liberal sermons	Percentage: Conservative sermons	*t*	Effect size (*d*)
Harm	0.44	0.26	−2.71**	0.56
Fairness	0.22	0.10	−3.04**	0.65
Ingroup	0.52	0.22	−6.65***	−1.27
Authority	0.46	0.98	3.42***	0.81
Purity	0.25	0.64	4.40***	0.99

Note. Percentages represent the number of times any word in the dictionary for that foundation was used, divided by the total number of words in the entire liberal or conservative corpus, then multiplied by 100. A negative effect size indicates the effect was opposite to prediction.
** $p < .01$. *** $p < .001$.

Discussion

If words do the work of politics, then liberal and conservative religious leaders are using different words to do different work. Unitarians, known for their political liberalism, talk more about issues of Harm and Fairness than do Baptist preachers. Baptists, in contrast, talk more about Authority and Purity than do Unitarians. The one finding that seemed to contradict our moral foundations hypothesis—frequency of Ingroup words—turned out, on closer inspection, to be consistent with the findings of Studies 1–3. Unitarians were more likely to use Ingroup-related words, but when Baptists used these words, they used them in ways more consistent with the values of the foundation. Unitarians were actually more likely to use some binding-foundation words (*individual**, *authorit**, *rebel**, and *submi**) in ways contrary to the foundational concerns, such as praising rebellion or individuality, than in ways supporting the foundations.

Our reading of the relevant words in context also revealed that liberal sermons were more overtly political, spending a great deal of time talking about the negative direction President George W. Bush was taking the nation. For instance, most of the 78 instances in which Unitarians said "war" referred to the current war in Iraq, whereas the 18 Baptist uses of "war" never once referred to the Iraq war, instead tending to describe a theological war between heaven and hell.

By supplementing the LIWC analyses with word-by-word frequency analyses and reading the most central words in context, we were able to better understand the patterns of word use and improve the validity of the moral foundations dictionary. This dictionary will be useful for further analyses of the words used by different moral communities and moral cultures in a variety of textual media (e.g., stories, speeches, letters, e-mails). Most importantly, Study 4 replicated the moral foundation patterns using existing moral texts delivered within the moral communities of Unitarian Universalists and Southern Baptists. Overall, the text results lend support to the moral foundations hypothesis and suggest that these moral differences exist in the real world and are not artifacts of the questionnaire-based methods we used in Studies 1–3.

General Discussion

Four studies found support for our moral foundations hypothesis using four different methods: moral relevance assessments, moral judgments, unwillingness to violate the foundations for money, and word use in religious sermons. Across all four studies, liberal morality was primarily concerned with harm and fairness, whereas conservative moral concerns were distributed more evenly across all five foundations. These findings help explain why liberals and conservatives disagree on so many moral issues and often find it hard to understand how an ethical person could hold the beliefs of the other side: Liberals and conservatives base their moral values, judgments, and arguments on different configurations of the five foundations.

The psychology of Harm/care and Fairness/reciprocity has been studied by moral psychologists for decades in work on moral reasoning (Gilligan, 1982; Kohlberg, 1969; Turiel, 1983), empathy (Hoffman, 1982), and equity theory (Walster, Berscheid, & Walster, 1976). Research related to the three binding foundations, however, has mostly examined them as sources of immorality. The psychology of ingroups has been closely related to the psychology of racism (Allport, 1954; Brewer, 2007); the psychology of authority has been studied as the psychology of fascism and blind obedience (Altemeyer, 1996; Milgram, 1974); and the psychology of purity and disgust has been related to the psychology of stigma (Crocker & Major, 1989). The binding foundations can certainly motivate horrific behavior, but a common theme in recent morality research is that moral–psychological mechanisms are often two-edged swords (de Waal, 1996). Reciprocity, for example, underlies both justice and blood feuds (Frijda, 1994). Religion brings out the best and the worst in people (Wilson, 2002). A complete moral psychology should include within its purview the major topics, virtues, and phenomena that either liberals or conservatives believe are part of their morality.

Integration With Other Theories

The five moral foundations provide a taxonomy for the bases of moral judgments, intuitions, and concerns. Taxonomies are the building blocks of theory, organizing metaphors that provide a vehicle for theories to exert explanatory power over human behavior. Many other taxonomies can be offered to organize the same content, and no best one can be chosen without specifying the purpose for which it will be used. If one's goal is to describe moral discourse across cultures, then

Table 2
Contextual Validity Ratings of Foundation-Related Words in Liberal and Conservative Sermons, Study 4

Foundation	Validity rating: Liberal sermons	Validity rating: Conservative sermons	*t*	Effect size (*d*)
Harm	.54	−.36	−8.14***	1.82
Fairness	.94	.33	−14.40***	1.77
Ingroup	.26	.44	2.96**	0.41
Authority	.22	.78	17.00***	1.08
Purity	.54	.74	5.62***	0.53

Note. Usages are averaged ratings of uses of 23 words in context, where 1 indicates support of foundation values, –1 indicates rejection of foundation values, and 0 indicates unclear or irrelevant to foundation values.
** $p < .01$. *** $p < .001$.

Shweder et al.'s (1997) three ethics work well and are fully compatible with the five foundations: the "ethic of autonomy" is generated by the Harm and Fairness foundations; the "ethic of community" draws on the Ingroup and Authority foundations; and the "ethic of divinity" is built on the Purity foundation. If one's goal is to describe patterns of social relationships, then Fiske's (1992) four models work well, and two of them (equality matching and authority ranking) are direct matches to two of the five foundations (Fairness and Authority). If one's goal is to classify all values and look at their relationships, then Schwartz's (1992) list of 10 value-types works well, and one quadrant of his multidimensional plot of values includes the main values related to the Harm and Fairness foundations (e.g., social justice, protect the environment), whereas an adjacent quadrant is a good catalogue of the values related to Ingroup, Authority, and Purity (e.g., national security, obedient, clean). We drew on all three of these theories in creating moral foundations theory, which we propose as the best taxonomy for research on moral judgment, particularly for psychologists who are interested in moral intuition (Haidt, 2001; Sunstein, 2005) or who want to explore moral issues beyond harm and fairness (Haidt & Graham, 2007). The theory is also useful for organizing and explaining political differences in people's endorsements of long lists of various values (Feather, 1979). We do not believe that moral foundations theory offers an exhaustive taxonomy; there are surely many other psychological systems that contribute to moral judgment. Fiske's "market pricing" relational model, or Schwartz's value-types of achievement and hedonism, for example, may point to additional psychological mechanisms that support some moral systems (such as the libertarianism of Ayn Rand, 1957). Nonetheless, as a first pass to identify the most important sources of moral intuition across cultures, we believe that the five foundations we have identified are the best starting point and offer the best balance between explanatory power and parsimony.

Factor Structure of the Moral Foundations

It is not our intention in this article to develop or validate a scale related to the moral foundations (for such work see Graham, Haidt, et al., 2008). However, because we are presenting and testing a new theory of morality that asserts a specific factor structure, we used the measurement items and large sample sizes of Studies 1–3 to create structural equation models of different confirmatory factor analyses. These models are provided as a supplement at www.moralfoundations.org. The supplement shows that models with five correlated factors (Harm, Fairness, Ingroup, Authority, and Purity) were a significant improvement (weighing both fit and parsimony) over three other models: (a) a single-factor Morality model, (b) a two-factor model distinguishing individualizing (Harm–Fairness) and binding (Ingroup–Authority–Purity) factors, and (c) a three-factor model corresponding to Shweder et al.'s (1997) three ethics of autonomy (Harm–Fairness), community (Ingroup–Authority), and divinity (Purity). Model comparisons were calculated using the FITMOD program (Browne, 1991; see also Browne & Cudeck, 1993). All datasets supported the prediction that a five-factor model would be an improvement over the other models. This was evident for relevance, judgment, and taboo trade-off items. We take this as preliminary evidence for a five-factor structure of moral concerns and as support for the theory guiding Studies 1–4.

Limitations and Future Directions

Research on political attitudes benefits from diverse sampling instead of the "typical" focus on undergraduate samples (Sears, 1986). Studies 1, 2, and 3 drew on large samples heterogeneous in age, education, income, and occupation within the United States and beyond, and Study 4 examined sermons written by ministers in Unitarian and Southern Baptist churches. Nevertheless, these samples are not representative of the national and international populations from which they are drawn (Nosek et al., 2007). Studies 1–3 were subject to self-selection, as participants opted in to visit the websites in the first place, and Study 3 had an additional selection bias in that participants chose to take that particular survey. Assuming that selection influences are similar within the sample, we can confidently interpret internal comparisons but cannot infer that the specific slopes and means will serve as accurate parameter estimates of the U.S. or worldwide population. Such inferences require representative sampling. An initial report from one nationally representative dataset (Smith & Vaisey, 2008) in the United States suggests that the moral foundations patterns reported here replicated for both the moral relevance items (Studies 1 and 2) and for the moral judgments items (Study 2).

Our conclusions about liberal and conservative moralities depend not just on the samples we studied but on the particular items we picked for measurement. The consistency across four measures (relevance, judgments, taboo trade-offs, and text analysis) provides some confidence for the robustness of these conclusions. Nonetheless, more validation work is needed to ensure that all the items are discriminating and gauging the foundations as intended. A broader investigation of these and other potential foundations is also needed to ensure that liberal and conservative differences are characterized correctly. There may well be kinds of fairness that conservatives care more about than do liberals, or kinds of purity that liberals care more about than do conservatives. Future investigations will expand the range of measures and behavioral observations used to assess the moral foundations and their factor structure.

Three of our four studies relied upon self-reported ratings, and the fourth study relied upon sermons that draw upon the conscious reflections of the speaker. Although we measured political identity implicitly as well as explicitly, we did not investigate whether differences in moral foundations exist implicitly as well as explicitly. Haidt's (2001) social–intuitionist model, along with recent studies of moral issues (Greene, Morelli, Lowenberg, Nystrom, & Cohen, 2008; Inbar, Pizarro, Knobe, & Bloom, in press), indicate that moral judgment relies heavily on automatic processes. Studies using implicit measurement methods will be essential for understanding the ways in which liberals and conservatives make moral judgments.

An additional future direction is to move beyond the unidimensional political spectrum we employed in Studies 1–4. The analysis of libertarians in Study 3 showed that patterns of moral foundation endorsement may be more complex than the single liberal–conservative continuum can adequately describe. There are many types of liberals, many types of conservatives, and many people who refuse to place themselves along that spectrum. Assessing people in terms of their scores on all five foundations may

offer insights into why people embrace or reject political labels and alliances in the complex ways that they do. (See Haidt et al., in press, for such an application of moral foundations theory.) Likewise, though we found consistent effects across U.S., U.K., and a nondifferentiated "other nations" group in Study 1, it is likely that the link between politics and moral foundations will vary to some degree across cultural contexts. Identifying the social, economic, ecological, and historical factors that create such variations will enrich our understandings of morality, politics, and the connections between them. Finally, experimental work is needed to better understand the causal nature of the relationships we have found. Do people first identify with the political left or right and then take on the necessary moral concerns, or do the moral concerns come first, or is there reciprocal influence or even an unidentified third variable at the root of both?

Conclusion

Western societies are growing more diverse, and with diversity comes differing ideals about how best to regulate selfishness and about how we ought to live together. Participants in political debates are motivated in part by moral convictions. Moral foundations theory offers a useful way to conceptualize and measure such convictions. As research on political psychology thrives (Jost, 2006), we hope that it will clarify the role that morality plays in political thought and behavior.

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Appendix A

Moral Relevance Items, Studies 1 and 2

Harm:
Whether or not someone was harmed
Whether or not someone suffered emotionally
Whether or not someone used violence
Whether or not someone cared for someone weak or vulnerable*

Fairness:
Whether or not some people were treated differently than others
Whether or not someone was denied his or her rights
Whether or not someone acted unfairly
Whether or not someone ended up profiting more than others*

Ingroup:
Whether or not someone did something to betray his or her group
Whether or not the action was done by a friend or relative of yours
Whether or not someone showed a lack of loyalty
Whether or not the action affected your group*
Whether or not someone put the interests of the group above his/her own*

Authority:
Whether or not the people involved were of the same rank or status
Whether or not someone failed to fulfill the duties of his or her role
Whether or not someone showed a lack of respect for legitimate authority
Whether or not an authority failed to protect his/her subordinates*
Whether or not someone respected the traditions of society*

Purity:
Whether or not someone did something disgusting
Whether or not someone violated standards of purity and decency
Whether or not someone did something unnatural or degrading
Whether or not someone acted in a virtuous or uplifting way*
Whether or not someone was able to control his or her desires*

*An asterisk indicates an item was included in Study 2 only

Appendix B

Moral Judgment Items, Study 2

Harm:
If I saw a mother slapping her child, I would be outraged.
It can never be right to kill a human being.
Compassion for those who are suffering is the most crucial virtue.
The government must first and foremost protect all people from harm.

Fairness:
If a friend wanted to cut in with me on a long line, I would feel uncomfortable because it wouldn't be fair to those behind me.
In the fight against terrorism, some people's rights will have to be violated [reverse scored].
Justice, fairness and equality are the most important requirements for a society.
When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.

Ingroup:
If I knew that my brother had committed a murder, and the police were looking for him, I would turn him in [reverse scored].
When it comes to close friendships and romantic relationships, it is okay for people to seek out only members of their own ethnic or religious group.
Loyalty to one's group is more important than one's individual concerns.
The government should strive to improve the well-being of people in our nation, even if it sometimes happens at the expense of people in other nations.

Authority:
Men and women each have different roles to play in society.
If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.
Respect for authority is something all children need to learn.
When the government makes laws, those laws should always respect the traditions and heritage of the country.

Purity:
People should not do things that are revolting to others, even if no one is harmed.
I would call some acts wrong on the grounds that they are unnatural or disgusting.
Chastity is still an important virtue for teenagers today, even if many don't think it is.
The government should try to help people live virtuously and avoid sin.

Appendix C

Taboo Trade-Off Items, Study 3

Harm:

Kick a dog in the head, hard
Shoot and kill an animal that is a member of an endangered species
Make cruel remarks to an overweight person about his or her appearance
Step on an ant hill, killing thousands of ants
Stick a pin into the palm of a child you don't know

Fairness:

Cheat in a game of cards played for money with some people you don't know well
Steal from a poor person and use the money to buy a gift for a rich person
Say no to a friend's request to help him move into a new apartment, after he helped you move the month before
Throw out a box of ballots, during an election, to help your favored candidate win
Sign a secret-but-binding pledge to only hire people of your race in your company

Ingroup:

Publicly bet against your favorite sports team (so that lots of people know)
Burn your country's flag, in private (nobody else sees you)
Say something bad about your nation (which you don't believe to be true) while calling in, anonymously, to a talk-radio show in a foreign nation
Break off all communications with your immediate and extended family for 1 year
Renounce your citizenship and become a citizen of another country
Leave the social group, club, or team that you most value

Authority:

Curse your parents, to their face (you can apologize and explain 1 year later)
Curse the founders or early heroes of your country (in private, nobody hears you)
Make a disrespectful hand gesture to your boss, teacher, or professor
Throw a rotten tomato at a political leader you dislike (remember, you will not get caught)
Slap your father in the face (with his permission) as part of a comedy skit

Purity:

Sign a piece of paper that says "I hereby sell my soul, after my death, to whoever has this piece of paper"
Cook and eat your dog, after it dies of natural causes
Get plastic surgery that adds a 2-inch tail on to the end of your spine
Get a blood transfusion of 1 pint of disease-free, compatible blood from a convicted child molester
Attend a performance art piece in which all participants (including you) have to act like animals for 30 minutes, including crawling around naked and urinating on stage

Appendix D

Moral Foundations Dictionary, Study 4

Harm:

*safe**, *peace**, *compassion**, *empath**, *sympath**, *care*, *caring*, *protect**, *shield*, *shelter*, *amity*, *secur**, *benefit**, *defen**, *guard**, *preserve*, *harm**, *suffer**, *war*, *wars*, *warl**, *warring*, *fight**, *violen**, *hurt**, *kill*, *kills*, *killer**, *killed*, *killing*, *endanger**, *cruel**, *brutal**, *abuse**, *damag**, *ruin**, *ravage*, *detriment**, *crush**, *attack**, *annihilate**, *destroy*, *stomp*, *abandon**, *spurn*, *impair*, *exploit*, *exploits*, *exploited*, *exploiting*, *wound**

Fairness:

fair, *fairly*, *fairness*, *fair**, *fairmind**, *fairplay*, *equal**, *justice*, *justness*, *justifi**, *reciproc**, *impartial**, *egalitar**, *rights*, *equity*, *evenness*, *equivalent*, *unbias**, *tolerant*, *equable*, *balance**, *homologous*, *unprejudice**, *reasonable*, *constant*, *honest**, *unfair**, *unequal**, *bias**, *unjust**, *injust**, *bigot**, *discriminat**, *disproportion**, *inequitable*, *prejud**, *dishonest*, *unscrupulous*, *dissociate*, *preference*, *favoritism*, *segregat**, *exclusion*, *exclud**

Ingroup:

together, *nation**, *homeland**, *family*, *families*, *familial*, *group*, *loyal**, *patriot**, *communal*, *commune**, *communit**, *communis**, *comrad**, *cadre*, *collectiv**, *joint*, *unison*, *unite**, *fellow**, *guild*, *solidarity*, *devot**, *member*, *cliqu**, *cohort*, *ally*, *insider*, *foreign**, *enem**, *betray**, *treason**, *traitor**, *treacher**, *disloyal**, *individual**, *apostasy*, *apostate*, *deserted*, *deserter**, *deserting*, *deceiv**, *jilt**, *imposter*, *miscreant*, *spy*, *sequester*, *renegade*, *terroris**, *immigra**

Authority:

*obey**, *obedien**, *duty*, *law*, *lawful**, *legal**, *duti**, *honor**, *respect*, *respectful**, *respected*, *respects*, *order**, *father**, *mother*, *motherl**, *mothering*, *mothers*, *tradition**, *hierarch**, *authorit**, *permit*, *permis-*

(*Appendixes continue*)

sion, *status*, *rank*, *leader*, *class*, *bourgeoisie*, *caste*, *position*, *complian*, *command*, *supremacy*, *control*, *submi*, *allegian*, *serve*, *abide*, *defere*, *defer*, *revere*, *venerat*, *comply*, *defian*, *rebel*, *dissent*, *subver*, *disrespect*, *disobe*, *sediti*, *agitat*, *insubordinat*, *illegal*, *lawless*, *insurgent*, *mutinous*, *defy*, *dissident*, *unfaithful*, *alienate*, *defector*, *heretic*, *nonconformist*, *oppose*, *protest*, *refuse*, *denounce*, *remonstrate*, *riot*, *obstruct*

Purity:

piety, *pious*, *purity*, *pure*, *clean*, *steril*, *sacred*, *chast*, *holy*, *holiness*, *saint*, *wholesome*, *celiba*, *abstention*, *virgin*, *virgins*, *virginity*, *virginal*, *austerity*, *integrity*, *modesty*, *abstinen*, *abstemiousness*, *upright*, *limpid*, *unadulterated*, *maiden*, *virtuous*, *refined*, *intemperate*, *decen*, *immaculate*, *innocent*, *pristine*, *humble*, *disgust*, *deprav*, *disease*, *unclean*, *contagio*, *indecen*, *sin*, *sinful*, *sinner*, *sins*, *sinned*, *sinning*, *slut*, *whore*, *dirt*, *impiety*, *impious*, *profan*, *gross*, *repuls*, *sick*, *promiscu*, *lewd*, *adulter*, *debauche*, *defile*, *tramp*, *prostitut*, *unchaste*, *wanton*, *profligate*, *filth*, *trashy*, *obscen*, *lax*, *taint*, *stain*, *tarnish*, *debase*, *desecrat*, *wicked*, *blemish*, *exploitat*, *pervert*, *wretched*

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