

Another Look at Moral Foundations Theory: Do Authoritarianism and Social Dominance Orientation Explain Liberal-Conservative Differences in “Moral” Intuitions?

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Abstract Moral foundations theorists propose that the moral domain *should* include not only “liberal” ethics of justice and care but also ostensibly “conservative” concerns about the virtues of ingroup loyalty, obedience to authority, and enforcement of purity standards. This proposal clashes with decades of research in political psychology connecting the latter set of characteristics to “the authoritarian personality.” We demonstrate that liberal-conservative differences in moral intuitions are statistically mediated by authoritarianism and social dominance orientation, so that conservatives’ greater valuation of ingroup, authority, and purity concerns is attributable to higher levels of authoritarianism, whereas liberals’ greater valuation of fairness and harm avoidance is attributable to lower levels of social dominance. We also find that ingroup, authority, and purity concerns are positively associated with intergroup hostility and support for discrimination, whereas concerns about fairness and harm avoidance are negatively associated with these variables. These findings might lead some to question the wisdom and appropriateness of efforts to “broaden” scientific conceptions of morality in such a way that preferences based on authoritarianism and social dominance are treated as

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moral—rather than amoral or even immoral—and suggest that the explicit goal of incorporating conservative ideology into the study of moral psychology (in order to increase ideological diversity) may lead researchers astray.

Keywords Political orientation · Ideology · Authoritarianism · Social dominance · Morality

If Democrats want to understand what makes people vote Republican, they must first understand the full spectrum of American moral concerns. They should then consider whether they can use more of that spectrum themselves. (Jonathan Haidt, 2008)

Given the bitterness with which left–right ideological battles concerning morality and justice are waged in society, it is important for social and behavioral scientists to illuminate the genuine causes—including, perhaps, underlying motives or dispositions—that explain divergent attitudes about right and wrong (Graham, Haidt, & Nosek, 2009; Hunter, 1991; Jost, 2006). According to public opinion polling, most self-identified conservatives in the U.S. find gay and lesbian relationships to be morally unacceptable (and oppose legalization of gay marriage), whereas most liberals support gay marriage initiatives (Jones, 2010; Saad, 2010). But how do we explain these and many other ideological differences?

Moral Foundations Theory

One ambitious attempt to understand the “culture war” from a psychological perspective is the theory of moral foundations (Graham et al., 2009; Haidt, 2008, 2012; Haidt & Graham, 2007, 2009). This work is predicated on the meta-theoretical assumption that previous research in moral psychology has focused too narrowly on allegedly “liberal” values of “justice, rights, and welfare” (Turiel, 2006). What is needed, according to moral foundations theorists, is to move “beyond Kohlberg’s (1969) ethic of justice and Gilligan’s (1982) ethic of care” (Haidt, Graham, & Joseph, 2009, p. 112)—classic approaches to moral psychology that Haidt (2012) has dismissed as products of “liberal bias.” Moral foundations theorists argue for an “alternative approach to defining morality that does not exclude conservative and non-Western concerns” (Graham et al., 2009, p. 1030)—one that incorporates values and orientations that have nothing to do with justice, rights, or welfare.

Accordingly, moral foundations theorists identify “five groups of virtues” that are said to explain why liberals and conservatives often hold divergent opinions on moral issues (Haidt et al., 2009, p. 111). Consistent with their framework, studies involving college student and internet samples reveal that liberals are significantly more likely than conservatives to prioritize principles of *fairness* and the avoidance of *harm*, whereas conservatives are more likely than liberals to regard *ingroup loyalty*, deference to *authority*, and *purity* (or sanctity) as morally significant (e.g., Graham et al., 2009; Graham, Nosek, Haidt, Iyer, Koleva, & Ditto, 2011; Haidt,

2008, 2012; McAdams, Albaugh, Farber, Daniels, Logan, & Olson, 2008). A crucial, albeit untested assumption of moral foundations theory is that ingroup, authority, and purity concerns—which are referred to as “binding foundations” (Graham et al., 2009, 2011)—are “moral (instead of amoral, or immoral)” (Haidt & Graham, 2007, p. 113). This assumption is part of a broader agenda to incorporate more conservative ideas in social psychological research under the rubric of increasing “political diversity” (Duarte et al., 2014, pp. 19–20; Haidt & Graham, 2007).

Moral foundations theorists sometimes suggest that they are offering a purely descriptive theory about what people *believe* is moral (rather than what actually *is* moral), but their frequent use of terms such as “virtues,” “moral truths,” “moral worth,” and “moral knowledge” clearly implies normative, prescriptive conclusions (Jacobsin, 2008, pp. 224–228). Moral foundations theorists commonly chastise liberals for failing to understand or appreciate conservative moral motivations; there is even said to be a “‘moral color-blindedness’ of the left” (Haidt & Graham, 2009, p. 389). Haidt (2012) has also advanced a “moral taste bud” metaphor in which liberals are likened to hapless chefs who believe falsely that they can serve meals based on only one or two “taste buds”—as opposed to “all five.” These are clearly normative (and not merely descriptive) arguments, whether their proponents realize it or not (see also Jost, 2012, pp. 525–526; Nagel, 2012, p. 40).

According to Haidt and Bjorklund (2008), research on moral foundations pushes ethicists to “move beyond an individualist-consequentialist framework and take conservative ideas seriously” (p. 248). And in explaining the political significance of research on moral foundations, Haidt (2008) writes that, “morality is not just about how we treat each other (as most liberals think); it is also about binding groups together, supporting essential institutions, and living in a *sanctified and noble way*.” Many of these claims are critical, evaluative, and prescriptive in nature, but—contrary to popular assumptions—this does not mean that they are necessarily impervious to empirical confrontation. It is possible that the endorsement of “conservative” (as opposed to “liberal”) moral values is indeed more conducive to live a virtuous (or noble) life—whether or not moral foundations theorists actually subscribe to such a hypothesis.

A Critical Perspective on Moral Foundations Theory

Of course, it is also possible that the opposite is closer to the truth—as the writings of Adorno, Frenkel-Brunswik, Levinson, and Sanford (1950), Allport (1954), Altemeyer (1996, 1998, 2006), Milgram (1974), Rummel (1997), and Sidanius and Pratto (1999), among many others, would imply. The existing evidence marshaled in support of moral foundations theory does not adequately address the issue, because it focuses on purely subjective considerations (what liberals and conservatives *believe* to be morally relevant), without any attempt to scrutinize the validity of those subjective considerations. As Nagel (2012) put it, “We cannot ignore innate human instincts and cultural conditioning, but anyone who wants to think seriously about morality must be prepared to evaluate such motives from an independent

point of view that is achieved by transcending them" (p. 41). This article takes one—admittedly small and ultimately unsatisfying—step in this general direction of distinguishing between subjective conceptions of morality (which are, after all, indistinguishable from mere *moralizing*) and morality from a more independent, objective perspective.

To illustrate the claim that conservatives are motivated by *moral* concerns that liberals do not sufficiently understand, appreciate, or respect, Haidt and Graham (2007) cite (former) Republican Senator Rick Santorum, whose "anti-gay marriage views were based on concerns for traditional family structures, Biblical authority, and moral disgust for homosexual acts (which he had previously likened to incest and bestiality)" (p. 111). Conservative opposition to gay marriage, in other words, should be understood in terms of principled moral commitments to defending the norms and traditions of the *ingroup*, respecting conventional *authority* figures, and enforcing standards of *purity* and *divinity* (see also Haidt & Graham, 2009, p. 390).

Jost (2009) suggested that many of the allegedly "moral" characteristics ascribed to conservatives by moral foundations theorists possess a striking resemblance to authoritarianism, as conceptualized by political psychologists over the last 70 years. Decades of research find that the "authoritarian personality"—which is characterized by conventionalism, submission, and aggression—is associated with ethnocentrism (or ingroup favoritism), sexism, homophobia, and punishment of social deviants (e.g., Adorno et al., 1950; Altemeyer, 1996, 1998, 2006; Jost, Glaser, Kruglanski, & Sulloway, 2003; McFarland, 2010; Napier & Jost, 2008; Whitley & Lee, 2000). This work—especially in conjunction with experiments by Milgram (1974) on the potentially deleterious consequences of obedience to authority—provides scientific grounds for doubting the claims made by moral foundations theorists that deference to authorities and traditional conventions should be considered "moral (instead of amoral, or immoral)." Such work also casts a more worrisome light on Haidt's (2008) recommendation that liberals should embrace more of the "binding foundations" in their political messaging campaigns. As Jacobsin (2008) put it, any "actual moral system, *no matter how heinous*, seems capable of being modeled by some weighting" (pp. 225–226) of the moral intuitions touted by Haidt and Graham (2007, 2009).

To clarify our position, we are by no means suggesting that "liberal" attitudes or orientations are above moral reproach or that conservatism is synonymous with authoritarianism or that all conservative positions on moral issues are motivated by intergroup hostility. At the same time, there are several decades' worth of data demonstrating that—throughout the Western world—conservatism (or right-wing orientation) is robustly correlated with authoritarianism, prejudice, and discrimination against members of disadvantaged groups (*inter alia*, Adorno et al., 1950; Altemeyer, 1996, 1998; Jost et al., 2003; Jost, West, & Gosling, 2009; Napier & Jost, 2008; Sidanius & Pratto, 1999; Stone & Smith, 1993). Conservatism is also positively associated with social dominance orientation, which is conceptualized as a generalized preference for group-based hierarchy and the maintenance of inequality (Altemeyer, 1998; Pratto, Sidanius, Stallworth, & Malle, 1994; Sidanius, Pratto, & Bobo, 1996; Whitley, 1999). Social dominance orientation, in turn, predicts sexism, racism, classism, homophobia, and a wide range of prejudicial

outcomes (Sidanius & Pratto, 1999). Studies suggest that authoritarianism and social dominance orientation, when taken in conjunction, explain approximately half of the statistical variability in generalized prejudice (Altemeyer, 1998).

Do Authoritarianism and Social Dominance Orientation Explain Liberal-Conservative Differences in “Moral” Intuitions?

Is it possible that liberal-conservative differences in Haidt and Graham’s (2007) moral intuitions are attributable to differences in authoritarianism and social dominance? There is reason to suspect that they are. In addition to the obvious parallels between heightened ingroup, authority, and purity concerns and the two types of “authoritarian personalities,” McAdams et al. (2008, p. 988) found that ingroup, authority, and purity themes were significantly more common in the narratives of individuals who scored high (vs. low) on right-wing authoritarianism and, to a weaker extent, social dominance. Haidt et al. (2009, p. 112) and Graham et al. (2011, p. 377) acknowledged that authoritarianism was positively correlated with endorsement of the “binding foundations” but did not adequately address the implications of these correlations for their descriptive or prescriptive conclusions about morality and politics.

A spate of recent articles suggest that, as Jost (2009) hypothesized, there is indeed a reasonably close empirical connection between authoritarianism and social dominance orientation, on one hand, and the subjective consideration of ingroup loyalty, obedience to authority, and purity as moral virtues, on the other hand. First, Van Leeuwen and Park (2009) demonstrated that authoritarianism, social dominance, and conservative moral intuitions share key psychological antecedents, such as perceptions of a dangerous world—consistent (rather than inconsistent, as Haidt & Graham, 2007, claimed) with Jost et al.’s (2003) analysis of political conservatism as motivated social cognition (see also Wright & Baril, 2011). Second, Federico, Weber, Ergun, and Hunt (2013) conducted two large surveys of undergraduate students and reported that scores on a right-wing authoritarianism scale were strongly and positively correlated with endorsement of ingroup, authority, and purity concerns, whereas scores on a social dominance orientation scale were negatively correlated with concerns about fairness and avoidance of harm. Third, Milojev et al. (2014) analyzed results from a large, nationally representative sample of citizens in New Zealand and observed that (a) right-wing authoritarianism and social dominance orientation were positively correlated with the endorsement of ingroup, authority, and purity concerns, and (b) social dominance orientation was negatively correlated with the endorsement of fairness and avoidance of harm.

Despite the relatively close and consistent empirical connections between “conservative” moral intuitions and the two types of “authoritarian personality,” previous authors, for the most part, have refrained from challenging the pivotal assumption that ingroup, authority, and purity concerns are “moral (rather than immoral or amoral).” None of the earlier articles included quantitative analyses bearing on the question of whether liberal-conservative differences in moral intuitions are attributable to (or statistically mediated by) individual differences in

authoritarianism and social dominance. We investigated this mediational hypothesis in a study that combined samples of student and internet respondents. In one of the samples, we were able to explore the hypothesis, which has also been neglected in previous research, that endorsement of “binding foundations” would be associated with hostility and support for discrimination against outgroups such as Muslims, foreigners, and immigrants—outcomes that most ethicists would be hard-pressed to describe as moral (rather than amoral or immoral).

Method

Participants

Our first sample consisted of 131 (63 male, $M_{age} = 19$, $SD_{age} = 2$) students of Lehigh University. Of these, 66 % identified as White, 19 % as Asian, 8 % as Latino, 4 % as Black, and 3 % as mixed or “other” (or declined to indicate). Our second sample involved 220 (68 male) online respondents living in the U.S. using Amazon’s Mechanical Turk (see Buhrmester, Kwang, & Gosling, 2011). These participants ranged in age from 18 to 72 ($M = 35$, $SD = 12$). Eighty-one percent identified as White, 6 % as Asian, 6 % as Black, 4 % as Latino, and 3 % as mixed/“other” (or declined to indicate). In terms of their educational background, 30.9 % had completed “High School Diploma, GED, or equivalent,” 14.5 % had attended “2 Year College,” 43.2 % had attended “4 Year College,” and 11.4 % held a “Graduate or professional degree.” To estimate political partisanship, participants in Sample 2 were asked “In general, who do you usually vote for in national elections?” Responses were provided on a scale ranging from 1 (“almost always the Republican”) to 7 (“almost always the Democrat”); the sample was slightly skewed in favor of the Democratic Party ($M = 4.7$, $SD = 2.0$).

Measures and Procedure

All study materials were administered by computer in 2010. Participants in both samples completed measures of political orientation, right-wing authoritarianism, social dominance orientation, and moral intuitions. Sample 2 also completed a measure of outgroup hostility. Unless otherwise noted, responses were measured on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). To insure that online participants were attending carefully to the materials, our second sample completed attention checks as described by Oppenheimer, Meyvis, and Davidenko (2009) and Graham et al. (2009, 2011). Final sample sizes exclude those (<10 % overall) who either failed this check or had abnormally fast completion times (less than one-half of the sample median).

Liberalism–Conservatism

To measure political orientation, we administered three items used by Carney, Jost, Gosling, and Potter (2008), namely (1) “Where on the following scale of political

orientation (from extremely liberal to extremely conservative) would you place yourself (overall, in general)?”, (2) “In terms of social and cultural issues in particular, how liberal or conservative are you?”, and (3) “In terms of economic issues in particular, how liberal or conservative are you?” Responses were provided on a 7-point scale ranging from 1 (*Extremely liberal*) to 7 (*Extremely conservative*). For the combined sample, these three items formed a highly reliable index ($\alpha = .87$), so we took the mean as an estimate of overall political orientation ($M = 3.45$, $SD = 1.50$).

Right-Wing Authoritarianism

We administered the 8-item version of the right-wing authoritarianism scale used by Sibley and Duckitt (2009). Sample items include “The only way our country can get through the crisis ahead is to get back to our traditional values, put some tough leaders in power, and silence the troublemakers spreading bad ideas,” and “Our country will be destroyed some day if we do not smash the perversions eating away at our moral fiber and traditional beliefs”. For the combined sample, scale reliability was high ($\alpha = .85$), with average responses ranging from 1 to 6.13 ($M = 2.79$, $SD = 1.18$).

Social Dominance Orientation

We administered the 16-item social dominance orientation Scale (SDO6) developed by Pratto et al. (1994). Sample items include “To get ahead in life, it is sometimes necessary to step on other groups,” and “No one group should dominate in society” (reverse-coded). For the combined sample, scale reliability was again high ($\alpha = .91$), with average responses ranging from 1 to 5.75 ($M = 2.59$, $SD = 1.04$).

Moral Intuitions

Moral intuitions were measured using the 30-item Moral Foundations Questionnaire (MFQ30, Graham et al., 2011). Specifically, moral concerns for Fairness, Harm Avoidance, Ingroup Loyalty, Obedience to Authority, and Purity were assessed using six items each. The MFQ contains two sets of 15 questions. The first set assesses individual differences in judgments that specific pieces of information are relevant to making right and wrong moral judgments. Participants used a response scale ranging from 1 (*not at all relevant*) to 7 (*extremely relevant*) to indicate the perceived moral relevance of items such as “Whether or not someone acted unfairly” (Fairness), “Whether or not someone suffered emotionally” (Avoidance of Harm), and “Whether or not someone conformed to the traditions of society” (Obedience to Authority).

The second set of items requires participants to indicate their level of agreement or disagreement on a scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) with statements such as “Justice is the most important requirement for a society” (Fairness), “I am proud of my country’s history” (Ingroup Loyalty), and “People should not do things that are disgusting, even if no one is harmed” (Purity).

Responses to these two sets of items were combined to assess moral intuitions. For the combined sample, subscale reliabilities were acceptable for Ingroup Loyalty ($\alpha = .70$), Obedience to Authority ($\alpha = .73$), and concern for Purity ($\alpha = .80$), but low for Fairness ($\alpha = .58$) and Avoidance of Harm ($\alpha = .52$).

Outgroup Hostility

Two-hundred and nineteen participants from Sample 2 completed 6 items that were designed to gauge outgroup hostility and support for discrimination against Muslims, foreigners, and illegal immigrants. These items were as follows: (1) “Muslims should be afforded the same rights as Christians in building places to worship and publicly expressing their faith” (reverse-coded); (2) “The lives of foreigners—Saudi Arabians, Afghans, Iraqis—are worth as much as the lives of Americans and our foreign aid and military policies should reflect that” (reverse-coded); (3) “It would make no difference to me whether my child marries an American or someone from another country” (reverse-coded); (4) “Children of illegal immigrants born in the United States should NOT be given U.S. citizenship”; (5) “Many immigrants are too different from us to make good Americans”; and (6) “Illegal immigration is a serious drain on our country.” Statistical reliability for these items was reasonably high ($\alpha = .84$), so we calculated an index of outgroup hostility for some analyses ($M = 2.90$, $SD = 1.28$). For other analyses, we present results separately for each item so that readers can judge for themselves which patterns of response are likely to reflect bigotry and which reflect acceptable social and political opinions. Inter-correlations among study variables are listed in Table 1.

Results

We conducted several path analyses using MPlus 7 (Muthén & Muthén, 2010) to investigate the hypothesis that ideological difference in moral intuitions would be mediated by right-wing authoritarianism and social dominance orientation. To maximize statistical power, we combined data from the two samples ($N = 351$) and built the saturated model illustrated in Fig. 1. Such a saturated, manifest variable model has χ^2 , RMSEA, and SRMR values of 0, and CFI and TLI values of 1.

The Saturated Model

This model yielded positive associations between political orientation and right-wing authoritarianism, $b = .41$, $SE = .04$, $\beta = .52$, $p < .001$, as well as social dominance orientation, $b = .27$, $SE = .04$, $\beta = .38$, $p < .001$. Liberalism-conservatism explained 26.9 % of the variance in right-wing authoritarianism and 14.7 % of the variance in social dominance orientation. As expected, right-wing authoritarianism was positively associated with the endorsement of moral concerns about ingroup loyalty ($b = .24$, $SE = .04$, $\beta = .33$, $p < .001$), obedience to authority ($b = .38$, $SE = .04$, $\beta = .53$, $p < .001$), and concerns for purity ($b = .57$,

Table 1 Descriptive statistics and correlations among study variables

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
<i>Samples 1 and 2 combined (N = 351)</i>											
1. Liberalism-Conservatism	3.45	1.50	—								
2. Social Dominance Orientation (SDO)	2.59	1.04	.38***	—							
3. Right-Wing Authoritarianism (RWA)	2.79	1.18	.52***	.34***	—						
4. Avoidance of Harm	4.49	.67	−.13*	−.34***	−.09	—					
5. Fairness Concerns	4.50	.63	−.26***	−.36***	−.23***	.54***	—				
6. Ingroup Loyalty	3.61	.83	.24***	.24***	.38***	.12*	.08	—			
7. Obedience to Authority	3.77	.85	.33***	.31***	.58***	.06	.05	.68***	—		
8. Purity Concerns	3.38	1.08	.41***	.24***	.67***	.19***	.09†	.51***	.68***	—	
<i>Sample 2 only (N = 219)</i>											
9. Outgroup Hostility	2.90	1.28	.47***	.56***	.56***	−.18***	−.30***	.38***	.50***	.46***	—

† $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

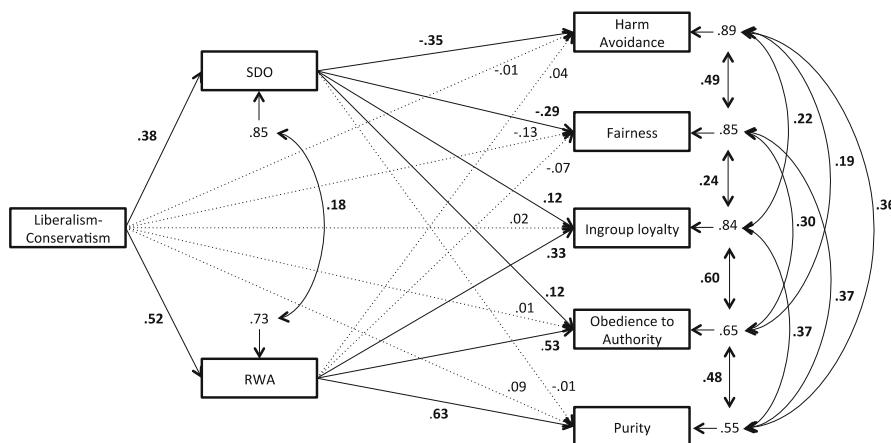


Fig. 1 Saturated path model showing relationships between political orientation, right-wing authoritarianism, social dominance orientation, and five types of moral intuitions. Path coefficients are standardized regression coefficients of the full model. *Broken lines* indicate non-significant paths at $p > .05$

$SE = .05$, $\beta = .63$, $p < .001$). It was unrelated to concerns for fairness ($b = -.04$, $SE = .03$, $\beta = -.07$, $p > .2$) and avoidance of harm ($b = .02$, $SE = .04$, $\beta = .04$, $p > .5$). Social dominance orientation was positively associated with ingroup loyalty ($b = .10$, $SE = .04$, $\beta = .12$, $p < .05$) and obedience to authority ($b = .10$, $SE = .04$, $\beta = .12$, $p < .05$) but not purity concerns ($b = -.01$, $SE = .05$, $\beta = -.01$, $p > .8$). Social dominance orientation was also negatively associated with concerns for fairness ($b = -.18$, $SE = .03$, $\beta = -.29$, $p < .001$) and avoidance of harm ($b = -.22$, $SE = .03$, $\beta = -.35$, $p < .001$).

After adjusting for all of the other variables in the model, the residual variances among moral concerns remained significantly correlated, as shown in Fig. 1. The model explained 15 % of the variance in fairness, 11.5 % of the variance in harm avoidance, 16 % of the variance in ingroup loyalty, 34.9 % of the variance in obedience to authority, and 45.2 % of variance in purity concerns.

The Trimmed Model

To determine whether direct associations between (a) liberalism-conservatism and (b) moral intuitions were mediated by (c) right-wing authoritarianism and social dominance orientation, we trimmed the non-significant pathways between right-wing authoritarianism and concerns for fairness and the avoidance of harm and between social dominance orientation and the concern for purity. The resulting model, which is illustrated in Fig. 2, provided a good fit to the data, $\chi^2/df = 3.60/3$; $p > .3$; $CFI = .999$, $NFI = .995$, $RMSEA = .02$, and $SRMR = .01$. A good model fit is indicated by a non-significant χ^2 , a ratio of Chi square to degrees of freedom of approximately 2 or less, a comparative fit index (CFI) and a normed fit index (NFI) of 0.95 or higher and a root mean square error of approximation (RMSEA) of 0.06

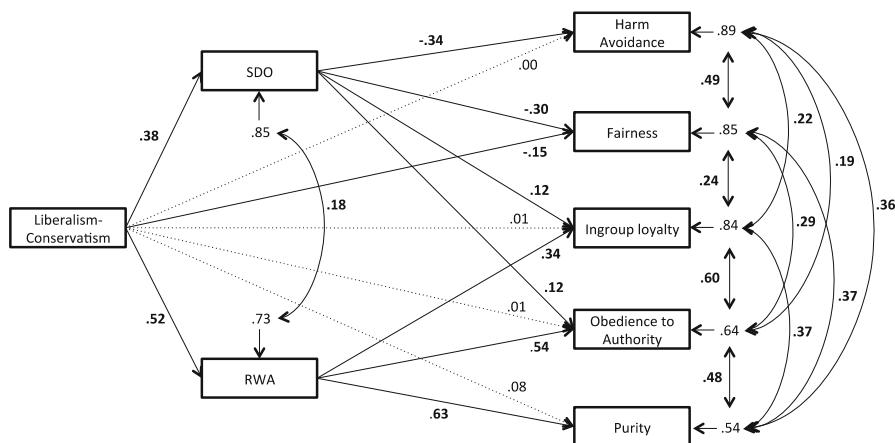


Fig. 2 Trimmed path model illustrating that right-wing authoritarianism and social dominance orientation mediate the relationship between political orientation and moral intuitions. Path coefficients are standardized regression coefficients of the trimmed model. Broken lines indicate non-significant paths at $p > .05$

or less (Tabachnick & Fidell, 2007). We then estimated individual indirect paths using the bootstrapping technique (Preacher & Hayes, 2008; Shrout & Bolger, 2002). We requested 95 % confidence intervals using 5,000 resamples.

In the trimmed model, when right-wing authoritarianism and social dominance orientation were included, the direct effects of political orientation on ingroup loyalty, obedience to authority, purity, and avoidance of harm became non-significant (ingroup loyalty: $b = .007$, $SE = .03$, $\beta = .01$, $z = .20$, $p > .8$; authority: $b = .003$, $SE = .03$, $\beta = .01$, $z = .10$, $p > .9$; purity: $b = .06$, $SE = .03$, $\beta = .08$, $z = 1.74$, $p > .08$; harm avoidance: $b = .002$, $SE = .02$, $\beta = .003$, $z = .06$, $p > .9$). The direct effect of political orientation on concern for fairness remained significant in this model, $b = -.06$, $SE = .02$, $\beta = -.15$, $p < .01$. Thus, liberals were more concerned about fairness than conservatives even after adjusting for the effects of authoritarianism and social dominance orientation.

Mediational Analyses

Next, we tested the indirect effects using bootstrapping analysis. An indirect effect is considered significant if the unstandardized 95 % confidence interval around the estimate does not contain 0. We observed that right-wing authoritarianism mediated the effects of liberalism-conservatism on concerns for ingroup loyalty {.07, .13}, obedience to authority {.13, .19}, and purity {.20, .28}. Social dominance orientation mediated the effects of political orientation on concerns for fairness {-.07, -.03}, avoidance of harm {-.08, -.04}, ingroup loyalty {.01, .05}, and obedience to authority {.01, .05}. These results, which are also summarized in Table 2, indicate that RWA and SDO significantly mediated the associations between liberalism-conservatism and the five moral intuitions, as hypothesized.

Table 2 Direct and indirect effects of liberalism-conservatism on moral intuitions

	Avoidance of harm		Fairness		Ingroup loyalty		Obedience to authority		Purity	
	<i>b</i>	β	<i>b</i>	β	<i>b</i>	β	<i>b</i>	β	<i>b</i>	β
<i>Direct effects</i>										
Lib/Con → SDO	.27***	.38	.27***	.38	.27***	.38	.27***	.38	.27***	.38
Lib/Con → RWA	.41***	.52	.41***	.52	.41***	.52	.41***	.52	.41***	.52
Lib/Con → Moral Intuitions	.00	.00	-.06***	-.15	.01	.01	.00	.01	.06 [†]	.08
SDO → Moral Intuitions	-.22***	-.34	-.18***	-.29	.10*	.12	.10**	.12	—	—
RWA → Moral Intuitions	—	—	—	—	.24***	.34	.39***	.54	.58***	.63
<i>Indirect effects</i>										
Lib/Con → SDO → Moral Intuitions	{-.08, -.04}		{-.07, -.03}		{.01, .05}		{.01, .05}		—	
Lib/Con → RWA → Moral Intuitions	—		—		{.07, .13}		{.13, .19}		{.18, .27}	
<i>R</i> ²	11.2 %		14.5 %		16.3 %		35.7 %		45.6 %	

Note R^2 signifies the proportion of variance in endorsement of moral intuitions explained by the trimmed model illustrated in Fig. 2

[†] $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

Outgroup Hostility and Support for Discrimination

Correlations between moral intuitions and outgroup hostility items are listed in Table 3. Individuals who endorsed ingroup loyalty, obedience to authority, and purity as moral concerns were significantly less likely to believe that Muslims should be afforded the same rights as Christians, that the lives of foreigners from the Middle East were as valuable as the lives of Americans, and that it would make no difference to them whether their children married Americans or foreigners. They were also more likely to believe that illegal immigration is a “serious drain on our country,” that many immigrants do not make “good Americans,” and that American born children of immigrants should be denied citizenship. By contrast, individuals who endorsed concerns about fairness and harm avoidance expressed less outgroup hostility.

To assess the relative contributions of each moral intuition, we regressed the composite outgroup hostility score on all five intuitions simultaneously. Results revealed that outgroup hostility was negatively predicted by fairness concerns ($b = -.55$, $SE = .14$, $\beta = -.28$, $p < .001$) but positively predicted by obedience to authority ($b = .47$, $SE = .14$, $\beta = .30$, $p < .01$) and purity concerns ($b = .23$, $SE = .09$, $\beta = .20$, $p < .05$). Somewhat surprisingly, ingroup loyalty and harm avoidance were unrelated to outgroup hostility after adjusting for the other three moral intuitions ($b = .18$, $SE = .12$, $\beta = .11$, $p = .12$; $b = -.17$, $SE = .13$, $\beta = -.08$, $p = .21$, respectively). The full model explained 39 % of the variance in outgroup hostility. Taken as a whole, our findings are consistent with the notion that fairness concerns are associated with the ethical treatment of outgroup members, whereas the valuation of obedience to authority and purity are associated with outgroup hostility and support for more discriminatory policies.

Discussion

In a long string of publications, moral foundations theorists have staked out a strong normative position that so-called “conservative” intuitions associated with the valuation of ingroup loyalty, obedience to authority, and enforcement of purity concerns are every bit as valid, well-intentioned, and morally defensible as so-called “liberal” intuitions associated with the valuation of fairness and avoidance of harm (e.g., Graham et al., 2009; Haidt, 2008, 2012; Haidt & Graham, 2007; Haidt et al., 2009). These authors have explicitly distinguished their approach from theories of moral development as well as theories of authoritarianism and social dominance orientation on the grounds that their approach is more sympathetic to politically conservative interests and concerns (e.g., Duarte et al., 2014; Haidt, 2012; Haidt & Bjorklund, 2008; Haidt & Graham, 2007; Shermer, 2011). In addition, Haidt (2008, 2012) has encouraged Democrats to make more frequent use in their political campaigns of “moral” appeals based on ingroup, authority, and purity themes.

The results of our investigation suggest that the moral valuation of ingroup loyalty, obedience to authority, and purity concerns is associated with attitudes and belief systems that may be considered prejudicial and therefore morally unsavory

Table 3 Correlations between endorsement of each moral intuition and hostility toward and support for discrimination against outgroups

	Avoidance of harm	Fairness	Ingroup loyalty	Obedience to authority	Purity
Muslims should be afforded the same rights as Christians in building places to worship and publicly expressing their faith. (R)	.16*	.28***	-.31***	-.38***	-.38***
The lives of foreigners—Saudi Arabians, Afghans, Iraqis—are worth as much as the lives of Americans and our foreign aid and military policies should reflect that. (R)	.27***	.28***	-.25***	-.28***	-.24***
It would make no difference to me whether my child marries an American or someone from another country. (R)	.18**	.23***	-.25***	-.27***	-.27***
Children of illegal immigrants born in the United States should NOT be given US citizenship	-.10	-.26***	.24***	.44***	.36***
Many immigrants are too different from us to make good Americans	-.08	-.13 [†]	.32***	.33***	.33***
Illegal immigration is a serious drain on our country	-.04	-.17*	.34***	.50***	.47***
Outgroup Hostility (Composite Variable)	-.18**	-.30***	.38***	.50***	.46***

[†] $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$

(to return to the taste bud metaphor). We have shown that liberal-conservative differences in the endorsement of these three “binding” intuitions may be attributable, at least in part, to the fact that conservatives tend to be higher than liberals on authoritarianism. Furthermore, liberal-conservative differences in the endorsement of fairness and avoidance of harm are attributable to the fact that liberals tend to be lower than conservatives on social dominance orientation (see also Milojev et al., 2014). The fact that these two types of moral concerns have *opposite* effects on intergroup hostility and support for discrimination against foreigners and immigrants raises questions about the assumption that “binding” and “individualizing” (or perhaps “humanistic” concerns) should be treated as operating on the same moral plane, objectively speaking (see also Jacobsin, 2008; Jost, 2012; Nagel, 2012).

Implications for the Study of Moral Psychology

There are two highly divergent ways of thinking about the implications of our findings for the study of moral psychology. First, one could make a critical argument that—given the extent to which past research links authoritarianism and social dominance orientation with bigotry, prejudice, discrimination, intolerance, and other forms of intergroup hostility (e.g., Altemeyer, 1996, 1998, 2006; Napier &

Jost, 2008; Pratto et al., 1994; Sidanius & Pratto, 1999; Whitley & Lee, 2000)—“liberal” values of justice and care are on stronger ethical ground than “conservative” values that prioritize the ingroup, obedience to authority, and purity. At some level, our evidence would appear to undercut entitlements by moral foundations theorists to consider ingroup, authority, and purity concerns as “moral (rather than immoral or amoral),” at least according to most conventionally accepted (and non-vacuous) definitions of these terms. Although many people may express the *belief* that loyalty to the ingroup, obedience to authority, and the enforcement of purity standards are morally good or justifiable (usually in the absence of value conflicts or trade-offs involving fairness or avoidance of harm), the possibility remains that, objectively speaking, they are not (Nagel, 2012). Our results suggest that liberal-conservative differences in “moral” intuitions such as these are attributable not to defensible moral principles *per se* but to personality dispositions associated with authoritarianism and social dominance orientation.

A second possibility, which is more in accord with the meta-theoretical assumptions of moral foundations theory, is that these dispositions are “moral” simply because (some) people *believe* them to be relevant for moral judgment. Indeed, moral foundations theorists might even want (or be obliged, for the sake of consistency) to argue that authoritarianism and social dominance are themselves *moral* intuitions or orientations. Duarte et al. (2014) seem to suggest, for instance, that those who score high in authoritarianism and social dominance orientation are no more guilty of prejudice and discrimination than those who score low on these variables. There is a problem, however, with defining the moral domain in purely subjective (or descriptive) terms and assuming, as moral relativists do, that “morality is in the eye of the beholder.” Such an approach risks opening up the domain of morality to virtually *anything*, “no matter how heinous,” as Jacobsen (2008) observed. One cannot help but wonder what it would take to be refused admission to the ever-broadening tent of “morality” if characteristics associated with authoritarianism and social dominance are to be ushered in Jost (2012).

We think that it would be more sensible and accurate to conclude simply that a number of morally *irrelevant* (i.e., amoral) psychological factors (such as feelings of disgust occasioned by “fart sprays”) lead people to render harsher moral judgments, including greater condemnation of homosexual behavior, than they otherwise would (e.g., Helzer & Pizarro, 2011). This conclusion would be consistent with Haidt’s (2001) view that moral judgments serve as post hoc rationalizations of emotional reactions. However, it is inconsistent with the claim that morality (in anything like the same sense) is about “living in a sanctified and noble way” (Haidt, 2008) or that “morality dignifies and elevates” (see Jacobsen, 2008, p. 219).

Caveats and Limitations

Because we administered the same self-report instruments developed by Haidt et al. (2009) and Graham et al. (2011), we cannot rule out the possibility that correlations between authoritarianism and endorsement of “binding foundations” are inflated because of conceptual overlap in the wording of items (e.g., “respect [for] traditions and heritage of the country”). Given that the instruments used to measure moral

concerns were developed by moral foundations theorists to operationalize their constructs of interest, however, our methodological approach seems appropriate for testing the hypothesis that authoritarianism and social dominance help to explain liberal-conservative differences in moral intuitions in the very ways in which these intuitions have been conceptualized and operationalized in the relevant research literature.

Another potential limitation of our study is that it fails to demonstrate that ingroup, authority, and purity concerns are associated with *immoral* behavior—just as previous research on moral foundations theory has failed to demonstrate that these concerns are associated with *moral* behavior. Future research would do well to investigate the effects of endorsing specific moral intuitions on behavior that violates objective moral standards (e.g., lying, cheating, stealing, or engaging in discriminatory conduct in the absence of compelling ethical justifications for these behaviors). The research literature pertaining to authoritarianism and social dominance would lead one to predict that those who embrace “binding foundations” would be more likely than those who reject them to engage in exploitative or abusive treatment of others, especially when it comes to individuals and groups that question authority and those who violate standards of purity (e.g., gay men and lesbians). Altemeyer (1998), for instance, observed that authoritarianism and social dominance orientation not only predicted a wide variety of ethnic prejudices but also a tendency to downplay sexual harassment and, in the case of social dominance orientation, relatively high scores on the “Exploitive Manipulative Amoral Dishonesty Scale,” which contains items such as “There is really no such thing as ‘right’ and ‘wrong.’ It all boils down to what you can get away with.”

Concluding Remarks

The kind of evidence we have presented in this article should give one pause before accepting value-laden assertions that liberals do not “get” conservative morality (Haidt, 2008; Haidt & Graham, 2009) or prescriptive appeals to “move beyond an individualist-consequentialist framework” to make more room for conservative moral intuitions (Haidt & Bjorklund, 2008, p. 248; see also Duarte et al., 2014). What liberal ethical theories of “justice, rights, and welfare” leave out and that conservative intuitions capture may have more to do with personality dynamics and ideological differences—such as those linked to authoritarianism and social dominance orientation—than anything that could be defended reasonably or successfully as an objective moral principle. Given that no prior studies have linked ingroup, authority, or purity concerns to judgments or behaviors that can be considered virtuous on normative grounds (as opposed to merely *perceived* as morally relevant by a subset of respondents), it seems unwise to treat them as on par with more philosophically established ethics of justice and care (e.g., Gilligan, 1982; Kohlberg, 1969; Nagel, 2012; Turiel, 2006).

The results of our investigation oblige moral foundations theorists to square all of their normative and descriptive claims, including those quoted here, with a good deal of disconcerting empirical evidence from social, personality, and political

psychology. This is because dispositions associated with authoritarianism and social dominance have played a prominent role in “some of the darkest moments of human history,” as Altemeyer (1998, p. 52) put it. Rather than valorizing the so-called “binding foundations,” it may be wiser to recall the advice of Bertrand Russell (1938, p. 296) on the eve of World War II: “To admire collective enthusiasm is reckless and irresponsible, for its fruits are fierceness, war, death, and slavery.”

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