

Economic and Social Political Ideology and Homophobia: The Mediating Role of Binding and Individualizing Moral Foundations

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Abstract Previous research has linked conservative political ideology with homophobia. Political ideology has also been linked to differences in moral decision-making, with research suggesting that conservatives and liberals may use different values in their moral decision-making processes. Moral foundations theory is a model of moral decision-making that proposes that individuals emphasize different domains in moral decision-making. Conservatives tend to emphasize binding foundations, while liberals tend to emphasize individualizing foundations. Utilizing large, ethnically diverse college samples, the purpose of these two cross-sectional studies (Study 1 $N = 492$; Study 2 $N = 861$) was to explore whether moral foundations mediate the relationship between political ideology and homophobia. These studies explored economic and social political ideology separately and utilized a two-factor model of moral foundations theory (individualizing and binding foundations). Results of both studies found that conservative economic and social political ideology was positively associated with homophobia. Study 1 found that both conservative economic and social political ideology had an indirect effect on homophobia through binding foundations. Study 2 found that both economic and social political ideology had an indirect effect on homophobia through both binding and individualizing foundations. Overall, the results were consistent with the notion that moral foundations may explain the relationship between political ideology and homophobia.

Keywords Moral foundations theory · Political psychology · Morality · Homophobia · Sexual orientation

Introduction

Levels of homophobia—also known as homonegativity or negative attitudes toward same-sex relations and opposition to lesbian, gay, and bisexual (LGB) rights (Rosik, Dinges, & Saavedra, 2013)—have declined over the past few decades in the USA. However, LGB individuals still encounter homophobia and prejudice in both the personal and political spheres (Baunach, 2012; Keleher & Smith, 2012; Loftus, 2001; Yang, 1997). Political ideology—specifically, conservative political ideology—has been linked with homophobia (Morrison & Morrison, 2002; Whitley & Lee, 2000; Wood & Bartkowski, 2004). Political ideology has also been linked to differences in moral decision-making, as research suggests that conservatives and liberals may use different values in their moral decision-making processes (Federico, Weber, Ergun, & Hunt, 2013; Graham, Haidt, & Nosek, 2009; Van Leeuwen & Park, 2009; Weber & Federico, 2013). Moral foundations theory is an individual differences model of moral decision-making, and emphasis on certain moral foundations has been linked to homophobia (Koleva, Graham, Iyer, Ditto, & Haidt, 2012).

Moral Foundations Theory

In contrast to developmental theories of morality (Fiske, 1992; Gilligan, 1982; Kohlberg, 1969; Shweder, Much, Mahapatra, & Park, 1997), moral foundations theory adopts a trait-based approach to moral decision-making (Graham et al., 2012). Moral foundations theory is based on distinct domains of moral decision-making that are dichotomized into individualizing and binding foundations. Individualizing foundations (i.e., Harm/Care and Fairness/Reciprocity) affirm the rights of the individual over broader group-related interests (Weber & Federico, 2013). The Harm/Care foundation describes “perceptions of suffering with motivations to care, nurture, and protect” (Graham et al., 2012, p. 12), while the Fairness/Reciprocity foundation measures

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“concerns about unfair treatment, inequality, and more abstract notions of justice” (Haidt, Graham, & Joseph, 2009, p. 111). In contrast to individualizing foundations, binding foundations (i.e., In-Group Loyalty, Authority/Respect, and Purity/Sanctity) emphasize morality in the context of a group or collective (Smith, Aquino, Koleva, & Graham, 2014). The In-Group Loyalty foundation is based on “recognizing, trusting, and cooperating... with one’s co-residing in-group” while viewing other groups with suspicion and lack of trust (Haidt & Graham, 2007, p. 105). The Authority/Respect foundation represents the ability to effectively exploit hierarchical systems to create amenable relations over those who do not possess the same aptitude (Milojev et al., 2014). Finally, the Purity/Sanctity foundation employs a “behavioral immune system” to evaluate environmental dangers present that may violate sacred or pure aspects of society (Graham et al., 2012). Moral foundations theory extends beyond the context of survival and has implications that extend to politics (Haidt & Graham, 2007).

Moral Foundations Theory and Political Ideology

Haidt and Graham (2007) suggest that differences in moral judgments between conservatives and liberals may be attributed to emphasis of different moral foundations. Moral foundations have been linked with political ideology (Bloom, 2013); political conservatism is associated with the binding foundations (Weber & Federico, 2013), while political liberalism emphasizes individualizing foundations (Federico et al., 2013; Graham et al., 2009). These results have been found with explicit as well as implicit association tests of political ideology (Van Leeuwen & Park, 2009). This suggests that liberals tend to emphasize the rights of individuals, whereas conservatives are more likely to consider the stability of the group or society as a whole.

Although political ideology has been viewed as a bipolar continuum between conservatism and liberalism (Graham et al., 2009; Haidt & Graham, 2007), this system may oversimplify individuals’ political views. Individuals’ social and economic political views are often distinct and may appear contradictory (Jost, Federico, & Napier, 2009; Talhelm et al., 2014). For this reason, viewing political ideology through the lens of a liberal–conservative binary is problematic. Jost et al. (2009) found that, although economic and social political views are correlated, they are distinct variables. Economic political issues concern government regulation and taxation, whereas social political issues concern civil liberties such as gay rights, legalization of marijuana, and abortion (Talhelm et al., 2014). Individuals’ ideological differences on economic and social issues may diverge from traditional conservative–liberal emphases on specific foundations (Graham et al., 2009, 2011; Iyer et al., 2012; Weber & Federico, 2013). For example, libertarians tend to be conservative on economic issues but fairly liberal on social issues (Jost et al., 2009; Iyer et al., 2012; Milojev et al., 2014; Talhelm et al., 2014; Weber & Federico, 2013), and in terms of moral foundations, libertarians are more likely than other self-identified conservative groups to endorse individualizing foundations (i.e., emphasize

individual rights) and less likely to endorse binding foundations (i.e., deemphasize group cohesion; Weber & Federico, 2013). These studies follow current research testing political ideology by separating economic and social political views (Carney, Jost, Gosling, & Potter, 2008; Iyer et al., 2012; Talhelm et al., 2014).

Moral Foundations and Homophobia

Moral foundations are also linked to homophobia (Rosik et al., 2013). Haidt and Graham (2007) contend that conservative and moderate opposition against gay marriage is due to moral concerns of In-Group Loyalty, Authority/Respect, and Purity/Sanctity (i.e., binding foundations), whereas liberal support is largely due to concerns of Fairness/Reciprocity and Harm/Care (i.e., individualizing foundations); however, they did not empirically test this assertion. Differences in emphasis on moral foundations between conservatives and liberals may explain links between political ideology and homophobia in that individuals who are more politically liberal may prioritize minority rights and fairness (i.e., individualizing foundations), while individuals who are more politically conservative may view acceptance of LGB individuals as a threat to a traditional way of life and defiance of religious orthodoxy (i.e., binding foundations). Moral foundations theory—specifically, analyzing the relative contributions of the individualizing and binding foundations as mediators—can provide a broader analysis of the importance of individual rights versus social cohesion in determining moral attitudes toward same-sex sexual behavior.

Study Aims

The purpose of our studies was to explore whether moral foundations mediate the relationship between political ideology and homophobia in large, ethnically diverse samples of U.S. college students.

Study 1

In Study 1, we sought to gain insight into the relationship between economic and social political ideology and homophobia by exploring the mediating role of binding and individualizing moral foundations. We chose to investigate economic and social political ideology in separate models in order to isolate relationships between each aspect of political ideology, moral foundations, and homophobia.

In the moral foundations literature, both five-factor (i.e., including all five moral foundations) and two-factor (i.e., grouping the five moral foundations into binding and individualizing foundations; Davies, Sibley, & Liu, 2014; Graham et al., 2011; Lewis & Bates, 2011; Nilsson & Erlandsson, 2015; Van Leeuwen & Park 2009) models of moral foundations theory have been utilized. Given that previous research has linked conservative political ideology with the binding foundations and liberal political ideology with the individualizing foundations, and because we wanted to construct the most parsimonious and stable model possible, we

were primarily interested in the role of the binding and individualizing foundations considered together; therefore, we utilized a two-factor model of moral foundations theory (Napier & Luguri, 2013; Van Leeuwen & Park, 2009; Wright & Baril, 2011). We chose multiple mediation models in order to explore the relative contributions of binding and individualizing foundations in mediating between political ideology and homophobia. Finally, given that levels of homophobia are declining (Baunach, 2012; Keleher & Smith, 2012; Loftus, 2001; Yang, 1997) and blatant public displays of homophobia are becoming more rare (Morrison & Morrison, 2002), we operationalized homophobia as modern homophobia, which refers to more subtle negative attitudes toward LGB individuals. We believed that, particularly with a college sample, modern homophobia would be a more effective way to tap into negative attitudes toward LGB individuals.

Consistent with the assertions made by Haidt and Graham (2007), it was expected that both individualizing foundations and binding foundations would have a mediating effect between political ideology and homophobia. We hypothesized that:

1. **H₁** Conservative economic political ideology would be positively associated with homophobia.
2. **H_{2a}** Conservative economic political ideology would exert an indirect effect on homophobia through higher endorsement of binding foundations.
3. **H_{2b}** Conservative economic political ideology would exert an indirect effect on homophobia through lower endorsement of individualizing foundations.
4. **H₃** Conservative social political ideology would be positively associated with homophobia.
5. **H_{4a}** Conservative social political ideology would exert an indirect effect on homophobia through higher endorsement of binding foundations.
6. **H_{4b}** Conservative social political ideology would exert an indirect effect on homophobia through lower endorsement of individualizing foundations.

Method

Participants

Participants consisted of self-identified heterosexual undergraduate students age 18–30 ($N = 492$; 65.4% female; 43.7% white) at the University of North Texas. Participants were recruited through the department research Web site, where they signed up to take a sex survey. Participant characteristics are shown in Table 1.

Procedure

This study was approved by the university committee for the protection of human subjects. Informed consent was obtained from all participants. Participants completed a survey online

(remotely) and received course credit for their participation. The measures were administered in a randomized order to control for sequencing effects. In order to encourage self-disclosure, the survey emphasized that responses were anonymous, and the survey did not request any identifying information from participants.

Measures

Political Ideology

Consistent with previous moral foundations research (e.g., Graham et al., 2009; Koleva et al., 2012; Talhelm et al., 2014; Van Leeuwen & Park, 2009; Weber & Federico, 2013), participants indicated their political ideology on two items. The first item read: “How would you describe your political outlook on economic issues?” The second item read: “How would you describe your political outlook on social issues?” Participants responded to both items with a Likert-type scale ranging from 1 = *very liberal* to 7 = *very conservative*.

Homophobia

We used nine items from the Modern Homophobia Scale (Raja & Stokes, 1998) to assess modern homophobia. Five items were directed toward gay men (e.g., “Movies that approve of male homosexuality bother me”), and four items were directed toward lesbians (e.g., “Lesbians should undergo therapy to change their sexual orientations”). Participants responded to each item using a five-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Responses were summed so that higher scores indicated higher levels of homophobia. This approach has been used in prior studies (e.g., Aosved, Long, & Voller, 2009). For this sample, Cronbach’s α was 0.89.

Moral Foundations

The Moral Foundations Questionnaire—Short Form (MFQ-SF; Graham et al., 2011) is a self-report measure of the emphasis placed on five distinct moral foundations in moral decision-making. The short form consists of two 10-item sections for a total of 20 items. In the first section, participants were asked how relevant to their moral decision-making various considerations are, and they responded on a six-point Likert-type scale ranging from 1 = *not very relevant* to 6 = *extremely relevant* (e.g., “Whether or not someone cared for someone weak or vulnerable,” which loads on the Harm/Care scale). In the second section, participants responded to statements on a six-point Likert-type scale ranging from 1 = *strongly disagree* to 6 = *strongly agree* (e.g., “People should be loyal to their family members, even when they have done something wrong,” which loads on In-Group Loyalty). The MFQ yields one scale for each of the five moral foundations: Harm/Care (e.g., “One of the worst things a person could do is hurt a defenseless animal”), Fairness/Reciprocity (e.g., “Whether or not someone acted unfairly”), In-Group Loyalty (e.g., “I am proud

Table 1 Demographics for Study 1 ($N = 492$) and Study 2 ($N = 861$)

	Study 1		Study 2	
	<i>n</i>	%	<i>n</i>	%
Gender				
Male	170	34.6	248	28.8
Female	322	65.4	613	71.2
Age (in years)				
<i>M</i>	20.71	–	20.46	–
SD	2.26	–	2.19	–
Range	18–30	–	18–30	–
Ethnicity				
White/Caucasian	215	43.7	446	51.8
Black/African American	96	19.5	132	15.3
Asian/Pacific Islander	45	9.1	78	9.1
Hispanic	113	23.0	177	20.6
Native American	4	0.8	1	0.1
Other	19	3.9	27	3.1
Academic classification				
Freshman	122	24.8	242	28.1
Sophomore	118	24.0	193	22.4
Junior	123	25.0	226	26.2
Senior	127	25.8	194	22.5
Other	2	0.4	6	0.7
Political affiliation				
Republican	79	16.1	130	15.1
Lean Republican	37	7.5	76	8.8
Independent	117	23.8	184	21.4
Lean Democratic	39	7.9	128	14.9
Democrat	134	27.2	191	22.1
Libertarian	38	7.7	97	11.3
Other	48	9.8	55	6.4

of my country's history"), Authority/Respect (e.g., "Whether or not someone showed a lack of respect for authority"), and Purity/Sanctity (e.g., "I would call some acts wrong on the grounds that they are unnatural"). Higher scores indicate a higher level of emphasis on that particular moral foundation in moral decision-making. In this study, Cronbach's alpha for each subscale was: Harm/Care ($\alpha = 0.77$), Fairness/Reciprocity ($\alpha = 0.78$), In-Group Loyalty ($\alpha = 0.64$), Authority/Respect ($\alpha = 0.65$), and Purity/Sanctity ($\alpha = 0.74$). The items loading on the In-Group Loyalty, Authority/Respect, and Purity/Sanctity scales were summed to form binding foundations ($\alpha = 0.87$), and the items loading on the Harm/Care and Fairness/Reciprocity scales were summed to form individualizing foundations ($\alpha = 0.88$).

Data Analysis

Multiple mediation was explored with a bootstrapping procedure (Hayes, 2013) in which 95% confidence intervals were used and 10,000 bootstrapping resamples were run. Bootstrapping is a non-

parametric procedure in which samples are taken multiple times from an existing dataset to create an empirical approximation of the sampling distribution. Confidence intervals are then generated based on this sampling distribution to test the indirect effects associated with mediational models. If the computed confidence intervals do not include zero, this indicates that the variable is a significant mediator in the proposed model (for a detailed discussion, see Hayes, 2013).

Results

Bivariate correlations between and descriptive statistics for all variables of interest are shown in Table 2.

Economic Political Ideology

In order to test H_1 , H_{2a} , and H_{2b} , a multiple mediation model was run in which economic political ideology was the independent

Table 2 Bivariate correlations and descriptive statistics for Study 1 ($N = 492$) and Study 2 ($N = 861$)

Variable	1	2	3	4	5	<i>M</i>	<i>SD</i>
1. Economic political ideology	–	0.60***	0.21***	–0.01	0.20***	4.09 ^a	1.54
2. Social political ideology	0.57***	–	0.21***	–0.15***	0.45***	3.43 ^a	1.70
3. Binding foundations	0.20***	0.36***	–	0.56***	0.12***	43.62 ^b	9.96
4. Individualizing foundations	–0.09**	–0.15***	0.37***	–	–0.41***	33.22 ^c	7.58
5. Homophobia	0.18***	0.42***	0.24***	–0.37***	–	21.00 ^d	7.20
<i>M</i>	3.99 ^a	3.30 ^a	62.26 ^e	48.32 ^b	49.63 ^f		
<i>SD</i>	1.54	1.64	12.55	7.73	15.42		

Study 1 coefficients and descriptive statistics are shown above the diagonal and in the rightmost columns, respectively, while Study 2 coefficients and descriptive statistics are shown below the diagonal and in the bottommost rows

** $p < .01$; *** $p < .001$

^a Absolute range, 1–7

^b Absolute range, 12–72

^c Absolute range, 8–48

^d Absolute range, 9–45

^e Absolute range, 18–108

^f Absolute range, 25–125

variable, binding foundations and individualizing foundations were the mediators, and homophobia was the dependent variable. We hypothesized that (H_1) conservative economic political ideology would be positively associated with homophobia. Conservative economic political ideology had a positive total effect on homophobia (path c : $\beta = 0.21$, $SE = 0.04$, $t = 4.76$, $p < .001$, 95% CI [0.12, 0.29]); however, it only explained 4.4% of the variance in homophobia. We also hypothesized that conservative economic political ideology would exert an indirect effect on homophobia through (H_{2a}) higher endorsement of binding foundations as well as (H_{2b}) lower endorsement of individualizing foundations. Conservative economic political ideology had a positive effect on binding foundations (path a_1 : $\beta = 0.21$, $SE = 0.04$, $t = 4.89$, $p < .001$, 95% CI [0.12, 0.30]) but only explained 4.6% of the variance in binding foundations. Conservative political ideology did not have an effect on individualizing foundations (path a_2 : $\beta = -0.01$, $SE = 0.04$, $t = -0.34$, $p = .72$, 95% CI [–0.10, 0.07]). Binding foundations had a positive effect on homophobia (path b_1 : $\beta = 0.49$, $SE = 0.04$, $t = 10.89$, $p < .001$, 95% CI [0.40, 0.58]), and individualizing foundations had a negative effect on homophobia (path b_2 : $\beta = -0.68$, $SE = 0.04$, $t = -15.51$, $p < .001$, 95% CI [–0.77, –0.60]). Together, conservative political ideology, binding foundations, and individualizing foundations explained 36.6% of the variance in homophobia. Conservative economic political ideology had a positive direct effect on homophobia (path c' : $\beta = 0.09$, $SE = 0.03$, $t = 2.46$, $p = .014$, 95% CI [0.01, 0.16]) and an indirect effect on homophobia through binding foundations ($\beta = 0.10$, $SE = 0.02$, 95% CI [0.06, 0.16]) but not individualizing foundations. The multiple mediation model is shown in Fig. 1.

Social Political Ideology

In order to test H_3 , H_{4a} , and H_{4b} , a second multiple mediation model was run; this was identical to the previous model except that social political ideology was the independent variable. We hypothesized that (H_3) conservative social political ideology would be positively associated with homophobia. Conservative social political ideology had a positive total effect on homophobia (path c : $\beta = 0.45$, $SE = 0.04$, $t = 11.34$, $p < .001$, 95% CI [0.37, 0.53]), and it explained 20.8% of the variance in homophobia. We also hypothesized that conservative social political ideology would exert an indirect effect on homophobia through (H_{4a}) higher endorsement of binding foundations as well as (H_{4b}) lower endorsement of individualizing foundations. Conservative social political ideology had a positive effect on binding foundations (path a_1 : $\beta = 0.21$, $SE = 0.04$, $t = 4.78$, $p < .001$, 95% CI [0.12, 0.29]) and explained 4.4% of the variance in binding foundations. Conservative social political ideology had a negative effect on individualizing foundations (path a_2 : $\beta = -0.15$, $SE = 0.04$, $t = -3.51$, $p < .001$, 95% CI [–0.24, –0.06]) and explained 2.4% of the variance in individualizing foundations. Binding foundations had a positive effect on homophobia (path b_1 : $\beta = 0.40$, $SE = 0.04$, $t = 9.00$, $p < .001$, 95% CI [0.31, 0.49]), and individualizing foundations had a negative effect on homophobia (path b_2 : $\beta = -0.59$, $SE = 0.04$, $t = -13.41$, $p < .001$, 95% CI [–0.68, –0.50]). Together, conservative political ideology, binding foundations, and individualizing foundations explained 42.3% of the variance in homophobia. Conservative social political ideology had a positive direct effect on homophobia (path c' : $\beta = 0.27$, $SE = 0.03$, $t = 7.29$, $p < .001$; 95% CI [0.20, 0.34]) and an indirect

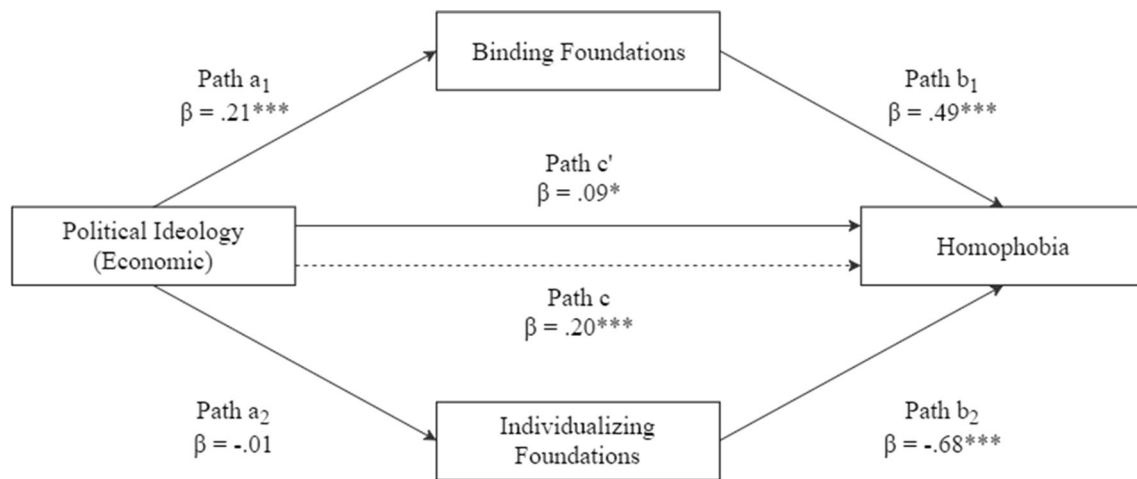


Fig. 1 Multiple mediation model for Study 1: political ideology (economic; IV), binding and individualizing foundations (mediators), homophobia (DV)

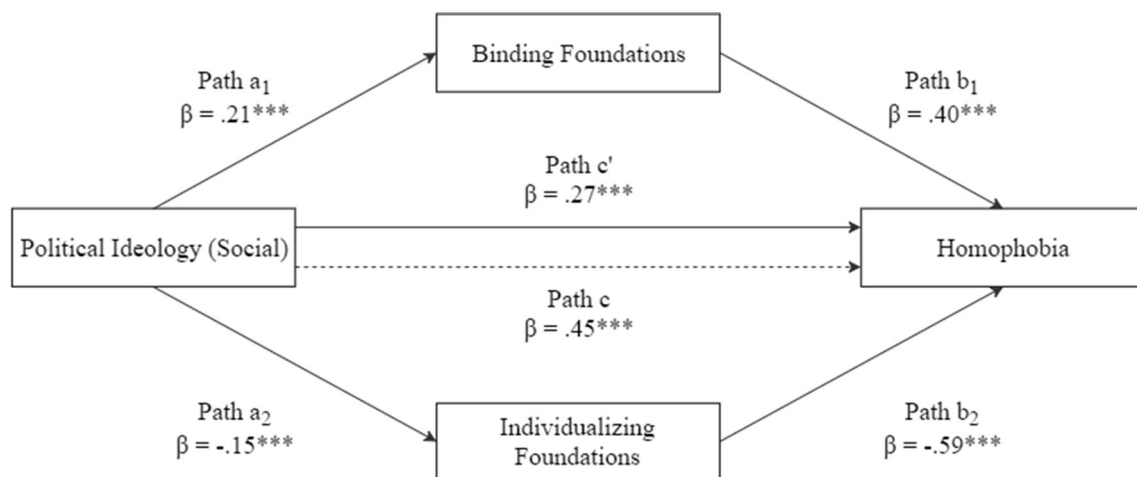


Fig. 2 Multiple mediation model for Study 1: political ideology (social; IV), binding and individualizing foundations (mediators), homophobia (DV)

effect on homophobia through binding foundations ($\beta = 0.08$, $SE = 0.02$, 95% CI [0.04, 0.13]) and individualizing foundations ($\beta = 0.09$, $SE = 0.02$; 95% CI [0.04, 0.14]). The multiple mediation model is shown in Fig. 2.

Discussion

The purpose of this study was to explore the relationship between economic and social political ideology and homophobia, specifically exploring whether binding and individualizing moral foundations mediate the relationship. Conservative economic and social political ideology were both positively associated with homophobia, supporting H₁ and H₃. This supports prior research linking conservatism and homophobia (e.g., Burnett & Salka, 2009;

Morrison & Morrison, 2002; Whitley & Lee, 2000; Wood & Bartkowski, 2004).

Economic political ideology had an indirect effect on homophobia through binding, but not individualizing, foundations, meaning that H_{2a} was supported while H_{2b} was not. Individualizing foundations did not mediate the relationship between political ideology and homophobia because the path from political ideology to individualizing foundations was not significant; indeed, the two variables were not correlated at the bivariate level. This result is interesting because it suggests that conservative economic political ideology may be associated with homophobia through the binding foundations. Social political ideology had an indirect effect on homophobia through binding foundations and individualizing foundations, supporting H_{4a} and H_{4b}. This result is consistent with the notion that social conservatives have higher

levels of homophobia through greater emphasis on the binding foundations and less emphasis on the individualizing foundations—and, conversely, that social liberals have lower levels of homophobia through greater emphasis on the individualizing foundations and less emphasis on the binding foundations.

Taken together, these results suggest that binding and individualizing foundations mediate the relationship between social political conservatism and homophobia. Additionally, these findings support prior research on the divergence of moral values between economic and social conservatives (Graham et al., 2009, 2011; Iyer et al., 2012; Jost et al., 2009; Milojev et al., 2014; Talhelm et al., 2014; Weber & Federico, 2013). This suggests a nuanced approach to analyzing conservatism is more effective as economic and social conservatives may exhibit conflicting views on moral foundations similar to the liberal–conservative divide (Weber & Federico, 2013). Thus, higher endorsement of the binding foundations better accounts for the relationship between political ideology and homophobia in the case of both economic and social conservatism.

Study 2

Introduction

In Study 2, we sought to replicate the findings from Study 1 with a larger sample and more extensive measures, specifically using the full MFQ-30 and a lengthier measure of homophobia. However, in Study 2, we also altered our operationalization of homophobia. In Study 1, we utilized a measure of modern homophobia in order to tap into more private and subtle attitudes about LGB individuals. Having found clear relationships with modern homophobia, in Study 2 we sought to explore whether relationships could be found with a less subtle measure—that is, a measure of traditional homophobia. For this, we utilized the Homophobia Scale (Wright, Adams, & Bernat, 1999), which measures three aspects of traditional homophobia: Affect/Behavioral Aggression, Behavior/Negative Affect, and Cognitive Negativism. We wanted to determine whether similar relationships would be found with less subtle, more explicit measure of traditional homophobia. Our hypotheses in Study 2 were identical to those in Study 1.

Method

Participants

Participants consisted of self-identified heterosexual undergraduate students age 18–30 ($N = 861$; 71.2% female; 51.8% white) at the University of North Texas. Participant characteristics are shown in Table 1.

Procedure

The procedure was identical to that from Study 1.

Measures

Homophobia

The Homophobia Scale (Wright et al., 1999) is a self-report measure of three facets of homophobia: Affect/Behavioral Aggression, Behavior/Negative Affect, and Cognitive Negativism. Affect/Behavioral Aggression measures aggressive behaviors and negative affect directed at gay men and lesbians (e.g., “Homosexual behavior should be against the law”). Behavior/Negative Affect measures negative affect and avoidance behaviors toward gay men and lesbians (e.g., “Gay people make me feel nervous”). Cognitive Negativism measures negative attitudes toward gay men and lesbians (e.g., “I avoid gay individuals”). Participants responded to 25 items on a five-point Likert scale ranging from 1 = *strongly agree* to 5 = *strongly disagree*. The three subscale scores were summed together to form an overall homophobia scale (Cronbach’s $\alpha = 0.92$), in which a higher score indicated higher levels of homophobia.

Moral Foundations

In Study 2, the full 30-item version of the MFQ (Graham et al., 2011) was used. The MFQ-30 has demonstrated reliability and validity (Davies et al., 2014; Graham et al., 2011). In this study, Cronbach’s alpha for each subscale was: Harm/Care ($\alpha = 0.70$), Fairness/Reciprocity ($\alpha = 0.70$), In-Group Loyalty ($\alpha = 0.67$), Authority/Respect ($\alpha = 0.70$), and Purity/Sanctity ($\alpha = 0.81$). The items loading on the In-Group Loyalty, Authority/Respect, and Purity/Sanctity scales were summed to form binding foundations ($\alpha = 0.89$), and the items loading on the Harm/Care and Fairness/Reciprocity scales were summed to form individualizing foundations ($\alpha = 0.83$).

Results

Bivariate correlations between and descriptive statistics for all variables of interest are shown in Table 2.

Economic Political Ideology

In order to test H_1 , H_{2a} , and H_{2b} , we ran a multiple mediation model identical to that from Study 1. We hypothesized that (H_1) conservative economic political ideology would be positively associated with homophobia. Conservative economic political ideology had a positive total effect on homophobia (path c : $\beta = 0.18$, $SE = 0.03$, $t = 5.65$, $p < .001$, 95% CI [0.12, 0.25]); however, it only explained 3.6% of the variance in homophobia. We also hypothesized that conservative economic political ideology would exert an indirect effect on homophobia through (H_{2a}) higher endorsement of binding foundations as well as (H_{2b}) lower endorsement of individualizing foundations. Conservative economic political ideology had

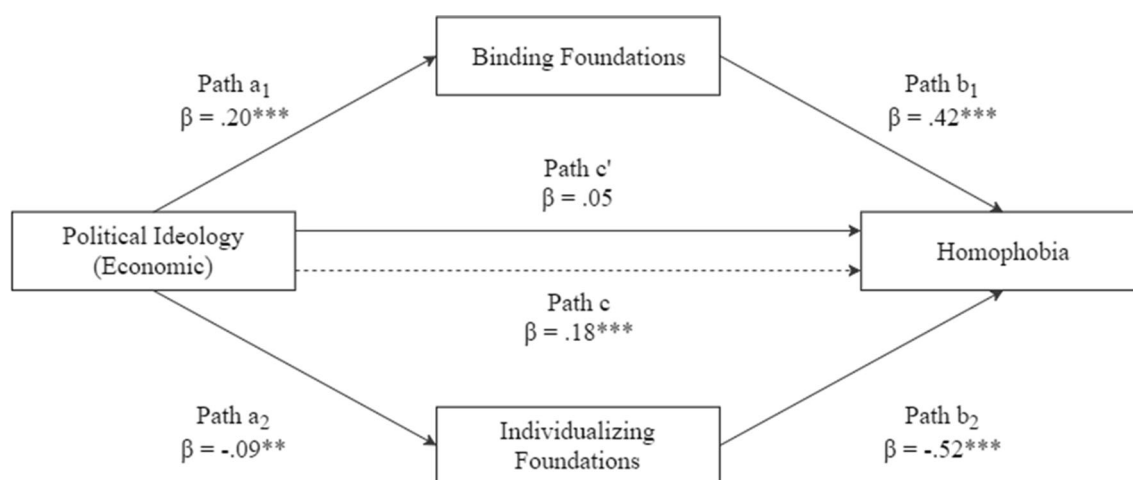


Fig. 3 Multiple mediation model for Study 2: political ideology (economic; IV), binding and individualizing foundations (mediators), homophobia (DV)

a positive effect on binding foundations (path a_1 : $\beta = 0.20$, $SE = 0.03$, $t = 6.19$, $p < .001$, 95% CI [0.14, 0.27]) and explained 4.2% of the variance in binding foundations. Conservative economic political ideology had a negative effect on individualizing foundations (path a_2 : $\beta = -0.09$, $SE = 0.03$, $t = -2.73$, $p = .006$, 95% CI [-0.15, -0.02]) but explained <1.0% of the variance in individualizing foundations. Binding foundations had a positive effect on homophobia (path b_1 : $\beta = 0.42$, $SE = 0.03$, $t = 13.48$, $p < .001$, 95% CI [0.36, 0.48]), and individualizing foundations had a negative effect on homophobia (path b_2 : $\beta = -0.52$, $SE = 0.03$, $t = -16.98$, $p < .001$, 95% CI [-0.58, -0.46]). Together, conservative economic political ideology, binding foundations, and individualizing foundations explained 31.0% of the variance in homophobia. With binding and individualizing foundations in the model, the direct effect of conservative political ideology on homophobia fell short of statistical significance (path c' : $\beta = 0.05$, $SE = 0.02$, $t = 1.76$, $p = .07$, 95% CI [-0.005, 0.11]). Conservative economic political ideology had an indirect effect on homophobia through binding foundations ($\beta = 0.08$, $SE = 0.01$, 95% CI [0.05, 0.12]) and individualizing foundations ($\beta = 0.04$, $SE = 0.01$, 95% CI [0.01, 0.08]). The multiple mediation model is shown in Fig. 3.

Social Political Ideology

In order to test H_3 , H_{4a} , and H_{4b} , we ran a multiple mediation model identical to that from Study 1. We hypothesized that (H_3) conservative social political ideology would be positively associated with homophobia. Conservative social political ideology had a positive total effect on homophobia (path c : $\beta = 0.42$, $SE = 0.03$, $t = 13.65$, $p < .001$, 95% CI [0.36, 0.48]) and explained 17.8% of the variance in homophobia. We also hypothesized that conservative social political ideology would exert an indirect effect on homophobia through (H_{4a}) higher endorsement of binding foundations as well as (H_{4b}) lower endorsement of individualizing

foundations. Conservative social political ideology had a positive effect on binding foundations (path a_1 : $\beta = 0.36$, $SE = 0.03$, $t = 11.35$, $p < .001$, 95% CI [0.29, 0.42]) and explained 13.0% of the variance in binding foundations. Conservative social political ideology had a negative effect on individualizing foundations (path a_2 : $\beta = -0.15$, $SE = 0.03$, $t = -4.53$, $p < .001$, 95% CI [-0.21, -0.08]) but only explained 2.3% of the variance in individualizing foundations. Binding foundations had a positive effect on homophobia (path b_1 : $\beta = 0.32$, $SE = 0.03$, $t = 9.85$, $p < .001$; 95% CI [0.26, 0.39]), and individualizing foundations had a negative effect on homophobia (path b_2 : $\beta = -0.46$, $SE = 0.03$, $t = -14.65$, $p < .001$, 95% CI [-0.52, -0.39]). Together, conservative social political ideology, binding foundations, and individualizing foundations explained 35.0% of the variance in homophobia. Conservative social political ideology had a positive direct effect on homophobia (path c' : $\beta = 0.23$, $SE = 0.03$, $t = 7.44$, $p < .001$, 95% CI [0.17, 0.29]) and an indirect effect on homophobia through binding foundations ($\beta = 0.11$, $SE = 0.01$; 95% CI [0.09, 0.15]) and individualizing foundations ($\beta = 0.07$, $SE = 0.01$; 95% CI [0.03, 0.10]). The multiple mediation model is shown in Fig. 4.

Post Hoc Analyses

Having found results with traditional homophobia in Study 2 similar to those found with modern homophobia in Study 1, we conducted a series of post hoc analyses in order to investigate relationships between political ideology, moral foundations, and the three facets of traditional homophobia: Affect/Behavioral Aggression, Behavior/Negative Affect, and Cognitive Negativism. Our purpose in these analyses was to determine the relative contribution of political ideology and moral foundations in predicting each subtype of traditional homophobia. Given this purpose and the exploratory nature of these analyses, we utilized three hierarchical multiple regression analyses, each with economic and social political ideology as independent variables entered simultaneously into

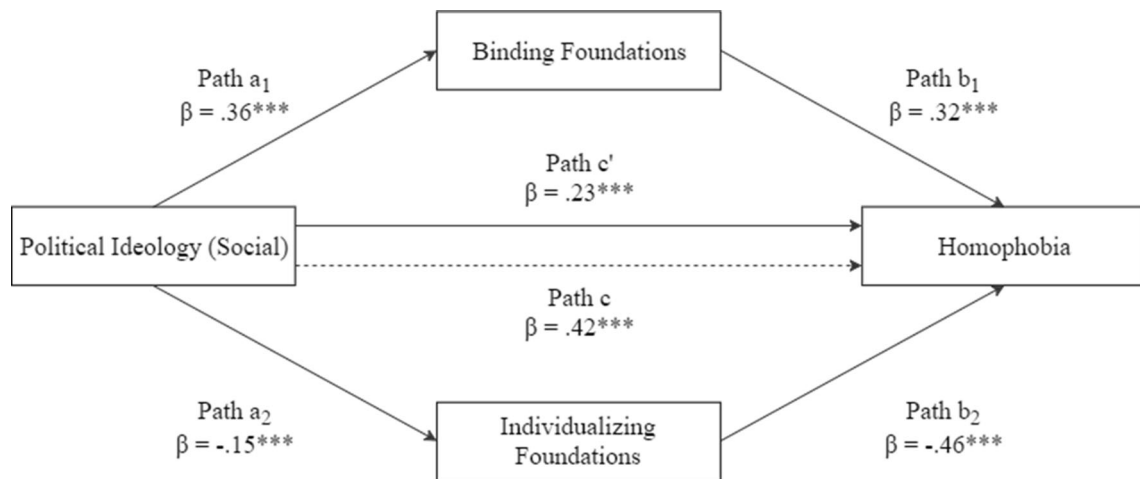


Fig. 4 Multiple mediation model for Study 2: political ideology (social; IV), binding and individualizing foundations (mediators), homophobia (DV)

the first step, binding and individualizing foundations entered simultaneously as independent variables in the second step, and one of the three subtypes of traditional homophobia as the dependent variable.

All four variables explained 25.6% of the variance in Cognitive Negativism, $F(4, 856) = 73.66, p < .001$; the unique predictors were conservative social political ideology ($\beta = 0.31, p < .001$), binding foundations ($\beta = 0.30, p < .001$), and individualizing foundations ($\beta = -0.23, p < .001$). For Behavior/Negative Affect, all four variables explained 30.4% of the variance, $F(4, 856) = 94.87, p < .001$; the unique predictors were conservative social political ideology ($\beta = 0.24, p < .001$), binding foundations ($\beta = 0.29, p < .001$), and individualizing foundations ($\beta = -0.44, p < .001$). Finally, for Affect/Behavioral Aggression, all four variables explained 27.6% of the variance, $F(4, 856) = 82.77, p < .001$, and were all unique predictors: conservative economic political ideology ($\beta = -0.08, p = .020$), conservative social political ideology ($\beta = 0.22, p < .001$), binding foundations ($\beta = 0.27, p < .001$), and individualizing foundations ($\beta = -0.45, p < .001$). The three multiple regression analyses are shown in Table 3.

Discussion

As in Study 1, conservative economic and social political ideology both had a positive total effect on homophobia, supporting H₁ and H₃. When the moral foundations were included as mediators in the model, the relationship between conservative economic political ideology and homophobia was no longer significant, indicating that binding and individualizing foundations fully mediated the relationship between conservative economic political ideology and traditional homophobia. This suggests that the relationship between economic political ideology and traditional homophobia is attributable to underlying differences in emphases in moral decision-making. Both economic and social political ideology demonstrated an indirect effect on homophobia through higher endorsement of both the binding and individualizing foundations, supporting H_{2a}, H_{2b}, H_{4a}, and H_{4b}. These findings suggest that both economic and social political ideology exert an indirect effect on traditional homophobia through both binding and individualizing moral foundations. Finally, results of the post hoc analyses found

Table 3 Multiple regression analyses for political ideology and moral foundations predicting three subtypes of traditional homophobia (N = 861)

	Cognitive Negativism				Behavior/Negative Affect				Affect/Behavioral Aggression			
	B	SE B	β	ΔR^2	B	SE B	β	ΔR^2	B	SE BE	β	ΔR^2
Step 1				0.18***				0.14***				0.12***
EPI	-0.13	0.08	-0.06		-0.29	0.17	-0.06		-0.36	0.17	-0.08*	
SPI	0.92	0.07	0.45***		1.79	0.16	0.42***		1.66	0.16	0.38***	
Step 2				0.07***				0.15***				0.15***
EPI	-0.13	0.07	-0.06		-0.30	0.15	-0.06		-0.37	0.16	-0.08*	
SPI	0.62	0.07	0.31***		1.05	0.16	0.24***		0.94	0.16	0.22***	
BMF	0.08	0.01	0.30***		0.16	0.01	0.29***		0.15	0.02	0.27***	
IMF	-0.10	0.01	-0.23***		-0.40	0.03	-0.44***		-0.41	0.03	-0.45***	

EPI economic political ideology, SPI social political ideology, BMF binding moral foundations, IMF individualizing moral foundations

* $p < .05$; *** $p < .001$

that conservative social political ideology predicted all three subtypes of traditional homophobia and that while binding and individualizing foundations contributed approximately equally to negative cognition, for Behavior/Negative Affect and Affect/Behavioral Aggression, individualizing foundations accounted for a larger share of variance than binding foundations. This suggests that a moral emphasis on protection and fairness appears to act as a greater buffer against more behavioral forms of homophobia.

General Discussion

The purpose of these studies was to investigate relationships between economic and social political ideology, binding and individualizing moral foundations, and homophobia. Four overall findings were clear and consistent across Study 1 and Study 2. First, consistent with prior research (Whitley & Lee, 2000; Wood & Bartkowski, 2004), the results of both studies found that conservative economic and social political ideology were both positively associated with homophobia. Second, social political ideology explained more variance in homophobia than economic political ideology. This is consistent with the notion that homophobia is more closely related to political “culture war” issues rather than those of taxation and regulation. Third, across both studies, political ideology had an indirect effect on homophobia through both binding and individualizing foundations in three of the four multiple mediation models. This supports the notion that political ideology influences homophobia through moral foundations. Fourth, across both studies, political ideology had an indirect effect on homophobia most consistently—in all four multiple mediation models—through the binding foundations. This finding provides empirical support for the assertion of Haidt and Graham (2007) that higher endorsement of the binding foundations explains the relationship between political conservatism and homophobia; furthermore, it is consistent with previous research that has found that Purity/Sanctity—one of the binding foundations—was the strongest predictor of attitudes in culture war issues (Koleva et al., 2012). Thus, the relationship between conservative political ideology and homophobia may result from differences in conservatives’ and liberals’ moral decision-making processes, with conservatives’ emphasis on shared cultural values accounting for higher levels of homophobia.

There were some discrepant findings in Study 1 and Study 2. In Study 1, economic political ideology was not significantly associated with individualizing foundations, yet in Study 2, conservative economic political ideology was negatively associated with the individualizing foundations. This may be due to the use of the short form of the MFQ in Study 1, which omits one economically relevant item from the full MFQ-30 (“I think it’s morally wrong that rich children inherit a lot of money while poor children inherit nothing”). Another discrepant finding was that, in Study 1, economic political ideology had a positive direct effect on homophobia; however, in Study 2, economic political ideology did not have a

positive direct effect on homophobia, suggesting full mediation. Thus, when the path between economic political ideology and individualizing foundations is significant, then economic political ideology exerts its effect on homophobia exclusively through the moral foundations. This suggests that any link between economic political ideology and homophobia may be explained entirely by underlying differences in moral decision-making.

Results of the post hoc analyses suggest that social political ideology was a stronger predictor of all three subfacets of homophobia than economic political ideology. Indeed, economic political ideology was only associated with Affect/Behavioral Aggression. Binding foundations were positively associated, and individualizing foundations were negatively associated with all three subfacets of homophobia.

These studies have implications for the study of political ideology and moral foundations. Although economic and social political ideology were positively correlated in both studies, the results that economic political ideology was not associated with individualizing foundations in Study 1 but was in Study 2 and that social political ideology was associated with binding and individualizing foundations in both studies suggests that there is value in making the distinction between economic and social political ideology in future research (Carney et al., 2008; Iyer et al., 2012; Talhelm et al., 2014). Additionally, across both studies—using the MFQ-SF in Study 1 and the MFQ-30 in Study 2—we found high correlations between the scale scores for the three binding foundations and the two individualizing foundations, supporting a two-factor model of moral foundations. The discrepancy in results between Study 1 and Study 2 with regard to the relationship between economic political ideology and the individualizing foundations suggests the importance of using the MFQ-30 in order to tap into the salient economic aspects of the individualizing foundations.

These studies were limited in several ways. They utilized a cross-sectional research design, limiting conclusions that can be drawn about causality and directionality of results. Additionally, these studies utilized a convenience sample of college students who were age 30 or younger. Recent polling shows an overwhelming 78 percent of millennials support same-sex marriage, a significant increase from a decade ago (Clement, Barnes, & Craighill, 2015). Also, sampling university students raises the question of generalizability for results. Future research should incorporate a more representative sample of the U.S. population to increase the generalizability of research findings. In addition, samples including non-college-educated adults should be studied to measure the effect level of education has on moral foundations, political ideology, and homophobia. Further, samples including college-educated adults should be studied to assess the effects of age on moral foundations, political ideology, and homophobia. Further study should assess if utilizing the full MHS-L and MHS-G as measures of homophobia will replicate the mediating relationships produced by the Homophobia Scale. Also, further study should incorporate newer measures of homophobia to analyze the effect of revised and updated measures on the relationship between political ideology and

homophobia. Future studies should continue explore economic and social conservative political ideology separately as predictors of homophobia to account for libertarian and other ideology that confound the liberal–conservative binary on social issues.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

Human and Animal Rights This article does not contain any studies with animals performed by any of the authors.

Informed Consent Informed consent was obtained from all individual participants in this study.

References

- Aosved, A. C., Long, P. J., & Voller, E. K. (2009). Measuring sexism, racism, sexual prejudice, ageism, classism, and religious intolerance: The Intolerant Schema Measure. *Journal of Applied Social Psychology, 39*, 2321–2354. doi:10.1111/j.1559-1816.2009.00528.x.
- Baunach, D. M. (2012). Changing same-sex marriage attitudes in America from 1988 through 2010. *Public Opinion Quarterly, 76*, 364–378. doi:10.1093/poq/nfs022.
- Bloom, P. B. N. (2013). The public's compass moral conviction and political attitudes. *American Politics Research, 41*, 937–964. doi:10.1177/1532673X13481842.
- Burnett, R. C., & Salka, W. M. (2009). Determinants of electoral support for anti-gay marriage constitutional amendments: An examination of 2006 votes on ballot measures in the United States. *Journal of Homosexuality, 56*, 1071–1082. doi:10.1080/00918360903275476.
- Camey, D. R., Jost, J. T., Gosling, S. D., & Potter, J. (2008). The secret lives of liberals and conservatives: Personality profiles, interaction styles, and the things they leave behind. *Political Psychology, 29*, 807–840. doi:10.1111/j.1467-9221.2008.00668.x.
- Clement, S., Barnes, R., & Craighill, P. (2015, April 23). Poll: Gay-marriage support at record high. *The Washington Post*. Retrieved from <http://www.washingtonpost.com>.
- Davies, C. L., Sibley, C. G., & Liu, J. H. (2014). Confirmatory factor analysis of the Moral Foundations Questionnaire: Independent scale validation in a New Zealand sample. *Social Psychology, 45*, 431–436. doi:10.1027/1864-9335/a000201.
- Federico, C. M., Weber, C. R., Ergun, D., & Hunt, C. (2013). Mapping the connections between politics and morality: The multiple sociopolitical orientations involved in moral intuition. *Political Psychology, 34*, 589–610. doi:10.1111/pops.12006.
- Fiske, A. P. (1992). The four elementary forms of sociality: Framework for a unified theory of social relations. *Psychological Review, 99*, 689–723. doi:10.1037/0033-295X.99.4.689.
- Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Cambridge, MA: Harvard University Press.
- Graham, J., Haidt, J., Koleva, S., Motyl, M., Iyer, R., Wojcik, S. P., & Ditto, P. H. (2012). Moral foundations theory: The pragmatic validity of moral pluralism. In P. Devine & A. Plant (Eds.), *Advances in experimental social psychology* (Vol. 47, pp. 55–130). San Diego, CA: Academic Press.
- Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology, 96*, 1029–1046. doi:10.1037/a0015141.
- Graham, J., Nosek, B. A., Haidt, J., Iyer, R., Koleva, S., & Ditto, P. H. (2011). Mapping the moral domain. *Journal of Personality and Social Psychology, 101*, 366–385. doi:10.1037/a0021847.
- Haidt, J., & Graham, J. (2007). When morality opposes justice: Conservatives have moral intuitions that liberals may not recognize. *Social Justice Research, 20*, 98–116. doi:10.1007/s11211-007-0034-z.
- Haidt, J., Graham, J., & Joseph, C. (2009). Above and below left–right: Ideological narratives and moral foundations. *Psychological Inquiry, 20*, 110–119. doi:10.1080/10478400903028573.
- Hayes, A. F. (2013). *Introduction to mediation, moderation and conditional process analysis*. New York, NY: Guilford Press.
- Iyer, R., Koleva, S., Graham, J., Ditto, P., Haidt, J., & Young, L. (2012). Understanding libertarian morality: The psychological dispositions of self-identified libertarians. *Public Library of Science, 7*, 1–23. doi:10.1371/journal.pone.0042366.
- Jost, J. T., Federico, C. M., & Napier, J. L. (2009). Political ideology: Its structure, functions, and elective affinities. *Annual Review of Psychology, 60*, 307–333.
- Keleher, A., & Smith, E. R. (2012). Growing support for gay and lesbian equality since 1990. *Journal of Homosexuality, 59*, 1307–1326. doi:10.1080/00918369.2012.720540.
- Kohlberg, L. (1969). Stage and sequence: The cognitive developmental approach to socialization. In D. A. Goslin (Ed.), *Handbook of socialization theory and research* (pp. 347–380). Chicago: Rand McNally.
- Koleva, S. P., Graham, J., Iyer, R., Ditto, P. H., & Haidt, J. (2012). Tracing the threads: How five moral concerns (especially purity) help explain culture war attitudes. *Journal of Research in Personality, 46*, 184–194. doi:10.1016/j.jrp.2012.01.006.
- Lewis, G. J., & Bates, T. C. (2011). From left to right: How the personality system allows basic traits to influence politics via characteristic moral adaptations. *British Journal of Psychology, 102*, 546–558. doi:10.1111/j.2044-8295.2011.02016.x.
- Loftus, J. (2001). America's liberalization in attitudes toward homosexuality, 1973–1998. *American Sociological Review, 66*, 762–782.
- Milosevic, P., Osborne, D., Greaves, L. M., Bulbulia, J., Wilson, M. S., Davies, C. L., & Sibley, C. G. (2014). Right-wing authoritarianism and social dominance orientation predict different moral signatures. *Social Justice Research, 27*, 149–174. doi:10.1007/s11211-014-0213-7.
- Morrison, M. A., & Morrison, T. G. (2002). Development and validation of a scale measuring modern prejudice toward gay men and lesbian women. *Journal of Homosexuality, 43*, 15–37.
- Napier, J. L., & Luguri, J. B. (2013). Moral mind-sets: Abstract thinking increases a preference for 'individualizing' over 'binding' moral foundations. *Social Psychological and Personality Science, 4*, 754–759. doi:10.1177/1948550612473783.
- Nilsson, A., & Eerlandsson, A. (2015). The Moral Foundations taxonomy: Structural validity and relation to political ideology in Sweden. *Personality and Individual Differences, 76*, 28–32. doi:10.1016/j.paid.2014.11.049.
- Raja, S., & Stokes, J. P. (1998). Assessing attitudes toward lesbians and gay men: The Modern Homophobia Scale. *International Journal of Sexuality and Gender Studies, 3*, 113–134. doi:10.1023/A:1023244427281.
- Rosik, C. H., Dinges, L. J., & Saavedra, N. (2013). Moral intuitions and attitudes toward gay men: Can moral psychology add to our understanding of homonegativity? *Psychology & Theology, 41*, 315–326.
- Shweder, R. A., Much, N. C., Mahapatra, M., & Park, L. (1997). The “big three” of morality (autonomy, community, and divinity), and the “the big three” explanations of suffering. In A. Brandt & P. Rozin (Eds.), *Morality and health* (pp. 119–169). New York, NY: Routledge.
- Smith, I. H., Aquino, K., Koleva, S., & Graham, J. (2014). The moral ties that bind...even to out-groups: The interactive effect of moral identity and the binding moral foundations. *Psychological Science, 25*, 1554–1562. doi:10.1177/0956797614534450.
- Talhelm, T., Haidt, J., Oishi, S., Zhang, X., Miao, F. F., & Chen, S. (2014). Liberals think more analytically (more “WEIRD”) than conservatives. *Personality and Social Psychology Bulletin, 41*, 250–267. doi:10.1177/0146167214563672.

- Van Leeuwen, F., & Park, J. H. (2009). Perceptions of social dangers, moral foundations, and political orientation. *Personality and Individual Differences*, *47*, 169–173. doi:[10.1016/j.paid.2009.02.017](https://doi.org/10.1016/j.paid.2009.02.017).
- Weber, C. R., & Federico, C. M. (2013). Moral foundations and heterogeneity in ideological preferences. *Political Psychology*, *34*, 107–126. doi:[10.1111/j.1467-9221.2012.00922.x](https://doi.org/10.1111/j.1467-9221.2012.00922.x).
- Whitley, B. J., & Lee, S. E. (2000). The relationship of authoritarianism and related constructs to attitudes toward homosexuality. *Journal of Applied Social Psychology*, *30*, 144–170. doi:[10.1111/j.1559-1816.2000.tb02309.x](https://doi.org/10.1111/j.1559-1816.2000.tb02309.x).
- Wood, P. B., & Bartkowski, J. P. (2004). Attribution style and public policy attitudes toward gay rights. *Social Science Quarterly*, *85*, 58–74. doi:[10.1111/j.0038-4941.2004.08501005.x](https://doi.org/10.1111/j.0038-4941.2004.08501005.x).
- Wright, L. W., Adams, H. E., & Bernat, J. (1999). Development and validation of the homophobia scale. *Journal of Psychopathology and Behavioral Assessment*, *21*, 337–347. doi:[10.1023/A:1022172816258](https://doi.org/10.1023/A:1022172816258).
- Wright, J. C., & Baril, G. (2011). The role of cognitive resources in determining our moral intuitions: Are we all liberals at heart? *Journal of Experimental Social Psychology*, *47*, 1007–1012. doi:[10.1016/j.jesp.2011.03.014](https://doi.org/10.1016/j.jesp.2011.03.014).
- Yang, A. S. (1997). Trends: Attitudes toward homosexuality. *Public Opinion Quarterly*. doi:[10.1086/297810](https://doi.org/10.1086/297810).