Original Research Reports

Moralization and the 2012 U.S. Presidential Election Campaign

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Abstract

People vary in the extent to which they imbue an attitude with moral conviction; however, little is known about what makes an issue transform from a relatively non-moral preference to a moral conviction. In the context of the 2012 U.S. presidential election, we test if affect and beliefs (thoughts about harms and benefits) are antecedents or consequences of participants' moral conviction about their candidate preferences, or are some combination of both. Using a longitudinal design in the run-up to the election, we find that, overall, affect is both an antecedent and consequence, and beliefs about harms and benefits are only consequences, of changes in moral conviction related to candidate preferences. The affect results were consistent across liberals, conservatives, and moderates; however, the role of beliefs showed some differences between ideologues (liberals and conservatives) and moderates.

People's sense of moral right and wrong is an important foundation for the political attitudes they hold, the political policies they support, and the activist behavior they engage in (e.g., Koleva, Graham, Iyer, Ditto, & Haidt, 2012; Skitka & Morgan, 2014). Some people may base a political attitude on their core moral beliefs, whereas others may, for example, base the same attitude on self-interest or a desire to conform to the beliefs of their ingroup. Attitudes that people perceive to be morally relevant are called moral convictions, a dimension of attitude strength that reflects an individual's belief that a particular attitude is connected to his or her fundamental sense of right or wrong, that is, his or her moral values (Skitka, Bauman, & Sargis, 2005; Skitka & Morgan, 2014). For example, whereas one person might consider same-sex marriage as morally relevant and connected with her fundamental sense of right and wrong (a moral conviction), another person may consider this same attitude as a norm of his community or ingroup (a convention).

People experience moral convictions differently than their non-moral attitudes. People think that their morally convicted attitudes apply to all people, regardless of conventional norms (i.e., they are universal; Morgan, Skitka,

& Lytle, 2014) and moral convictions are independent of majority (Aramovich, Lytle, & Skitka, 2012) and authority (Skitka, Bauman, & Lytle, 2009) influence. Moral conviction also provides motivation for people to take action in the name of their beliefs (e.g., protest, engage in activism; Skitka & Wisneski, 2011a; van Zomeren, Postmes, Spears, & Bettache, 2011; Zaal, Van Laar, Ståhl, Ellemers, & Derks, 2011) and participate in politics (e.g., vote; Morgan, Skitka, & Wisneski, 2010; Ryan, 2014; Skitka & Bauman, 2008; see Skitka & Morgan, 2014 for a review of the politically relevant effects of moral conviction). However, it is currently unclear what makes an issue transform from a relatively non-moral preference or convention to a moral conviction. What are the precursors to attitude moralization? In this paper, we test hypotheses about plausible antecedents of moral conviction about preferred and non-preferred candidates in the run-up to the 2012 U.S. presidential election and we test whether these antecedents are the same or different for liberals, conservatives, and moderates.

Moral Convictions Vary Across People

One of the major contributions of the moral conviction research program to the field of moral psychology has been to show the unexpected amount of variability that exists in the extent to which people moralize their attitudes on any particular social or political issue (Ryan, 2014; Skitka et al., 2005). This variation is not always recognized in popular or academic discourse. Take the issue of same-sex marriage, for example. In American discourse and policy, same-sex marriage is often connected to people's moral beliefs. The 1996 ban on federal recognition of same-sex marriage cited "collective moral judgment" and "moral disapproval" as justification for the ban (United States House of Representatives, 1996). As support for same-sex marriage has grown, so has the use of moral language to oppose discrimination against same-sex couples (Levy, 2010). Other issues, such as abortion, taxation, and stem cell research, are also often discussed in moral terms (Clifford & Jerit, 2013; Cohn, 2010; McFarland, 2013), and some scholars *ipso facto* assume that specific attitudes are definitionally "moral" attitudes (in the case of abortion attitudes see Hillygus & Shields, 2005) without recognizing the variation in the degree to which people perceive any given attitude—even issues like abortion—as connected to their moral convictions. The moral conviction research program highlights that the assumption that some attitudes are morally relevant for all people within a particular society is likely untenable. Research consistently finds that people self-report a wide range of levels of moral conviction for their attitudes on same-sex marriage, abortion, taxation, stem cell research, and other hot button issues of the day (e.g., Ryan, 2014; Skitka et al., 2005). These findings suggest that political attitudes are not morally relevant by definition. People vary considerably in the extent to which they see their position as a reflection of their subjective sense of moral right and wrong, and knowing the degree to which they do so has (as we have reviewed) important implications for their related thoughts, feelings, and behavior.

Given that moral conviction is an important predictor of many politically relevant variables (see Skitka & Morgan, 2014 for a review), it is important to understand how attitudes come to be moralized in the first place. Little research, however, has attempted to explain what makes an otherwise morally neutral attitude object come to be held with moral conviction, or an attitude that is experienced as weak or moderately moral, to be held definitively with moral conviction. In other words, what are the antecedents of attitude moralization?

Moralization

Moralization is the process whereby a particular attitude, object, or activity gains moral qualities and transitions from a relatively morally neutral preference to have moral relevance (Rozin, Markwith, & Stoess, 1997). Much of the work on moralization and its antecedents are cross-sectional studies. For example, Rozin and colleagues investigated the differences between people who treat smoking (Rozin & Singh, 1999) and vegetarianism (Rozin,

Markwith, & Stoess, 1997) as moral issues compared to those who did not. People who see these health-related behaviors as morally relevant tended to have strong emotional reactions (e.g., disgust; "I resist [avoid] eating 'meat' because eating 'meat' is offensive, repulsive, or disgusting" Rozin, Markwith, & Stoess, 1997, p. 71) and endorse beliefs about the harms/benefits of these health behaviors (e.g., "A diet containing 'meat' is not as healthy as a vegetarian diet." Rozin, Markwith, & Stoess, 1997, p. 71). These affective and belief correlates of moralization are related to the affective and belief/cognitive components of attitudes (cf. Breckler, 1984; Kothandapani, 1971; Ostrom, 1969) and suggests that both affect and beliefs are possible antecedents of moral conviction.

Affect

The idea that affect may be an antecedent to moral conviction is consistent with work on moral judgments (i.e., the rightness or wrongness of a particular moral act). For example, Haidt's (2001) social intuitionist model (SIM) of moral judgment suggests that moral judgment is primarily an intuitive and affective phenomenon, where emotions are one often-studied type of intuition (e.g., Haidt, 2012; Haidt & Kesebir, 2010; Landy & Goodwin, in press; Wheatley & Haidt, 2005). That is, people make moral judgments based on flashes of unconscious, gut level intuitions and emotions, with conscious reasoning primarily providing post-hoc justifications for the conclusion already reached by intuition (e.g., Gutierrez & Giner-Sorolla, 2007). Moral convictions could therefore develop because of the strong affective reactions people associate with specific topics or issues, a prediction consistent with correlational evidence that links strong emotions with moral convictions (Mullen & Skitka, 2006; Skitka & Wisneski, 2011a). For example, visceral reactions of disgust or moral outrage at the thought of the act of abortion or restricting women's access to it could lead directly to an elevated sense of moral relevance about the issue. Similarly, moralization may be more likely following the occurrence of emotionally changed events such as "moral shocks" (Jasper, 1997; Jasper & Poulsen, 1995). Moral shocks are surprising events such as natural disasters or mass tragedies that produce a strong emotion response and have the power to motivate people to become politically engaged (Snow & Soule, 2010). Thus, it is possible that morally shocking events could also serve as a situational and emotional trigger for attitude moralization.

Beliefs About Harms and Benefits

Affect has been the primary focus of the attention of moral psychology researchers in recent years; however, moral conviction may also have its roots in more conscious beliefs and reasons. Research on attitudes, for example, has identified both affective and belief components of attitudes, where the belief component (often called the cognitive component in the attitudes literature) consists of people's verbal statements of beliefs about the attitude object (Breckler, 1984; Eagly, Mladinic, & Otto, 1994; Insko & Schopler, 1967; Ostrom, 1969). These verbal statements can include statements of fact (or perceived fact) about the attitude object and are thought to develop from prior experience and exposure to information related to the attitude object. For example, the belief component of people's attitudes towards Cuba, from Ostrom (1969) might include beliefs such as "The Cuban people are industrious and hardworking" and "Cuba is secretive and deceitful."

If beliefs play a role in moralization, what type of beliefs may be the most likely to play a role? According to the research by Rozin and colleagues, beliefs about the harms and benefits of a particular action are related to moralization (Rozin, Markwith, & Stoess, 1997; Rozin & Singh, 1999). In his studies, endorsing statements about the harms of eating meat or smoking were typically associated with moralization of vegetarianism and non-smoking, respectively. The measures used to assess beliefs about harms and benefits used by Rozin are similar to the measures of beliefs related to attitudes used in the attitudes literature. Compare, for example, an item used by

Rozin, "A diet containing 'meat' is not as healthy as a vegetarian diet," to an item used by Ostrom, "Cuba is secretive and deceitful." Both items contain statements of perceived facts, albeit different facts. Rozin's data suggest that beliefs about the harms and benefits of an action or attitude form a route to moralization.

Recent research in social cognition and neuroscience also suggests that beliefs about the harms and benefits of a particular action influence moral judgments (and so perhaps moral conviction). For example, perceptions of harm are related to moral judgments, even in scenarios when obvious instances of harm have been removed, and these perceptions can occur very rapidly (Gray, Schein, & Ward, 2014; see also Crockett, Clark, Hauser, & Robbins, 2010; Cushman, Gray, Gaffey, & Mendes, 2012). Other research has found support for the possibility of a utilitarian route to moral judgments that is based on higher order cognition rather than emotion. Specifically, people whose moral judgments are especially sensitive to justice and fairness considerations do not show high activity in areas of the brain associated with emotion when evaluating the moral behavior of others. Instead, high justice sensitivity participants show increased activity in brain regions associated with higher order cognitive functioning, specifically areas associated with decision making and processing of rewards and punishments (Yoder & Decety, 2014). These research programs provide initial hints that beliefs about the harms and benefits of a particular issue may therefore also play a role in moralization.

Moralization as a Longitudinal Process

It is important to note, however, that even though the pioneering work of Rozin and colleagues is often interpreted as studying moralization (Rozin, 1999; Rozin, Markwith, & Stoess, 1997; Rozin & Singh, 1999), the studies themselves are not able to test the moralization process. Moralization is, by definition, a longitudinal process that unfolds over time as a person's attitude increases in moral relevance. Rozin and colleagues' studies, however, relied on cross-sectional data to make inferences about longitudinal change.[i] To be more concrete, the data from Rozin's studies tested why some people see smoking or eating meat as morally relevant and other people do not, whereas the definition of moralization implies that a person changes from not considering, for example, smoking or eating meat to be morally relevant to later seeing these practices as reflections of their moral beliefs. Therefore, in the current study we adopt a longitudinal design to assess changes in moral conviction over time and whether affect and beliefs predict moralization.

The Current Investigation

We tested the role of beliefs and affect as predictors of moralization of attitudes about political candidates in the run-up to the 2012 U.S. presidential election campaign. We analyzed data from a larger project that surveyed participants at four time points from the beginning of September 2012 through mid-December 2012. In this paper, we report results from the first two waves that came prior to the election because we were interested in how people moralize their political beliefs during a relevant and salient event. Moralization processes may be more likely prior to the election than after it. Specifically, Turner-Zwinkels, van Zomeren, and Postmes (2015) used a longitudinal design to show that politicization is associated with an increased overlap between personal and politicized identity traits, and that these effects were significantly less pronounced after the election occurred. These findings suggest that the election event served as a spark for identity integration. Similarly, it may be that an election can serve as a spark for moralization as well.

By using a longitudinal design, we were able to test whether changes in moral conviction about preferred and non-preferred candidates in the run-up to Election Day were predicted by participants' beliefs about the harms

and benefits of a particular candidate winning, their affective reactions towards candidates, or some combination of the two. By using latent difference score analysis we examined the effects of our Time 1 variables on changes in moral conviction between Times 1 and 2 (Little, Bovaird, & Slegers, 2006; McArdle, 2009). This design allows us to test not only how moral conviction about candidates changes over time, but also whether changes in affect and beliefs from one wave to the next predict changes in moral conviction. Our approach is a significant improvement over more common cross-sectional strategies that are not equipped to capture the dynamics of a multi-month pre-election season because they are focused on one particular point in time. Although our approach cannot rule out all possible third variables, it does provide evidence of within-subject change in a real world environment.

Reciprocal Effects of Affect and Beliefs

Much of the work on moral conviction, moralization, affect, and beliefs has been cross-sectional, making it difficult to know if affect and beliefs typically come before or after moral conviction. Although our introduction highlighted work that considers beliefs and affect as potential antecedents, other work has suggested that affect and beliefs may also be consequences of moral conviction. For example, Skitka and Wisneski (2011a) estimated mediation models where moral conviction predicted positive and negative affect, which in turn predicted activist intentions. Similar to affect, attitude relevant beliefs might also both precede and follow from feelings of moral conviction. Having a moral conviction might lead to greater beliefs about the harms and/or benefits of a given policy because of increased attention paid to issues one is morally convicted about, or a more intense motivated reasoning process (e.g., Gutierrez & Giner-Sorolla, 2007; Haidt, 2001; Rozin, 1999). For example, the benefits—but not harms—people associate with an attitude-consistent outcome mediates the relationship between moral conviction and political engagement (Skitka & Wisneski, 2011b). Thus, we also test the possibilities that affect and beliefs can both precede and follow from moral conviction in our models.

Ideological Differences in Moralization

By testing beliefs and affect in the context of a political election, the current study is also in a unique position to provide evidence as to whether the process of moralization differs for liberals versus conservatives. That is, although considerable work has explored differences in the moral beliefs held by liberals and conservatives (e.g., Duckitt & Sibley, 2009; Graham, Haidt, & Nosek, 2009), it remains an open question whether the processes underlying the formation of these beliefs also differ across the political spectrum.

We test two hypotheses about possible differences in how liberals and conservatives moralize. First, the *negativity bias hypothesis* suggests that conservatives are more reactive and sensitive to negative and threatening inform-ation than liberals (Hibbing, Smith, & Alford, 2014) and predicts that negative emotions, such as fear and hostility, and beliefs about the harms associated with an undesired outcome are more likely to lead to moral conviction for conservatives than for liberals. Conversely, this perspective also predicts that positive affect, such as enthusiasm, and beliefs about the benefits associated with desired outcomes are more likely to lead to moral conviction for liberals than for conservatives (Janoff-Bulman, 2009; Janoff-Bulman & Carnes, 2013).

Second, and in contrast, the *ideological-similarity hypothesis* predicts that there will be more similarities than dif-ferences in the underpinnings of moral conviction for liberals and conservatives. Although a number of psycholo-gical differences between liberals and conservatives have been observed, other work observes more similarities than differences in the cognitive and motivational processes that drive people's political reasoning (e.g., Brandt, Reyna, Chambers, Crawford, & Wetherell, 2014; Frimer, Biesanz, Walker, & MacKinlay, 2013; Kahan, Peters, Dawson, & Slovic, 2013; for a review see Skitka & Washburn, in press), including levels of moral conviction for a

variety of policy positions (Skitka, Morgan, & Wisneski, 2015). What remains to be seen, however, is whether the same or different processes determine whether liberals and conservatives vest a given issue with moral significance.

Our analysis focuses on five major variables (plus several covariates). To assess variables related to affect, we used measures of hostility and fear towards participants' non-preferred candidates, and enthusiasm towards participants' preferred candidates using validated Positive and Negative Affect Schedule (PANAS) subscales (Watson & Clark, 1999). We chose to focus on these three subscales because they are previously validated measures of affective reactions that are at the heart of theoretical debates surrounding moral emotions, political ideology, and political engagement (e.g., Brader, 2005; Hibbing et al., 2014; Marcus & MacKuen, 1993; Valentino, Brader, Groenendyk, Gregorowicz, & Hutchings, 2011). For example, the measure of hostility includes items related to both anger and disgust, emotions that both have clear relevance to morality (e.g., Mullen & Skitka, 2006; Rozin, Lowery, Imada, & Haidt, 1999; but see Landy & Goodwin, in press) and politics (e.g., Inbar, Pizarro, Iyer, & Haidt, 2012; Zucker & Weiner, 1993). Moral conviction has also been implicated in political engagement (Ryan, 2014; Skitka & Bauman, 2008; Skitka & Wisneski, 2011a) and enthusiasm is a key predictor of political engagement (Brader, 2005; Marcus & MacKuen, 1993), suggesting that enthusiasm may be helpful for understanding moral conviction. Although it is possible for other types of affect to play a role, our focus allows us to make the most direct comparisons to the existing literature. To assess participants' beliefs we asked people about the possible beneficial and harmful consequences of their preferred and non-preferred candidates, respectively, winning the election. These specific types of beliefs were chosen because of the focus on the harms and benefits of particular actions in the moral psychology literature (e.g., Gray, Schein, & Ward, 2014; Rozin, Markwith, & Stoess, 1997). In addition to these primary variables, we also included demographic and politically relevant control variables to try and rule out possible alternative explanations.

Method

Participants and Procedure

Participants were first recruited on Amazon's Mechanical Turk website (MTurk) starting on September 12, 2012 (see Figure 1 for a timeline of our entire study and the 2012 U.S. election). MTurk provides a more diverse (but non-representative) sample than typical samples of university students (e.g., Berinsky, Huber, & Lenz, 2012) and previous samples from MTurk participants show significant variation on items assessing moral conviction (e.g., Brandt & Wetherell, 2012; Ryan, 2014) which is necessary to predict change in moral conviction. In the first wave, we aimed to collect complete data from 1500 participants eligible to vote in the election (U.S. citizen, 18 years of age or older, registered to vote). In total we collected 1513 participants who were eligible to vote in the 2012 election, completed the relevant measures, passed two instructional manipulation checks, and provided their MTurk identification code (which was necessary for us to re-contact them at later waves). These participants constituted our final sample for Time 1 (749 men, 764 women). Although not representative of U.S. voters, the sample was more diverse than the typical student sample. Participants ranged in age from 18 to 83 (M_{age} = 33.8, SD = 12.4). They reported a wide range of educational attainment: less than high school diploma (1%), high school diploma (11%), some college, no degree (31%), technical/associates degree (11%), bachelor's degree (33%), master's degree (10%), doctoral/professional degree (3%). Like most MTurk samples, our participants were primarily White (80%), however, the sample also contained Black or African American (6%), Asian (5%), and Hispanic/Latino (4%) individuals. The participants were from 48 states and the District of Columbia (no participants

were from Maine or North Dakota). California (10%) and Florida (8%) were the most represented states in the sample.
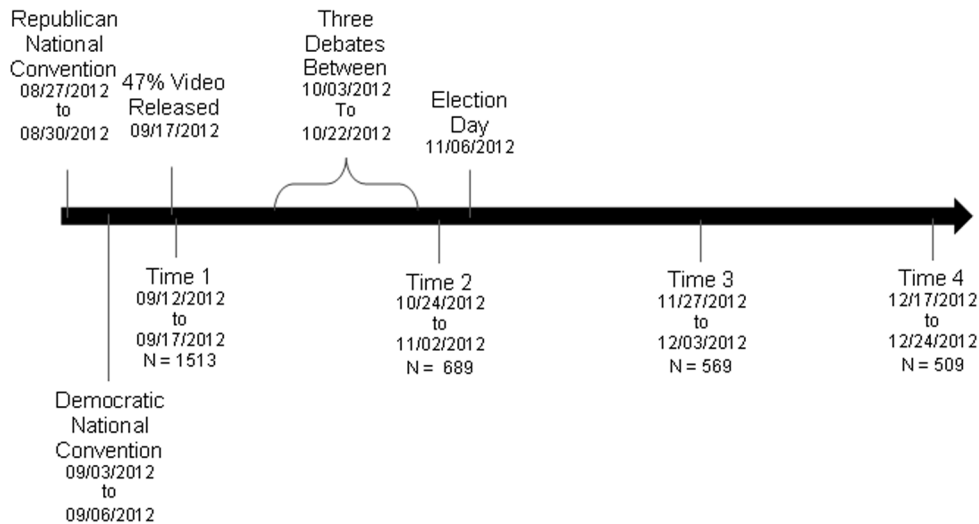

Figure 1. Timeline of the full study and major events in the 2012 U.S. presidential election.

At each of the subsequent time points (Times 2–4) we re-contacted our Time 1 sample and asked them to complete a follow-up survey. After removing the responses of participants who did not pass the instructional manipulation checks at these later time points, the response rates across the subsequent time points ranged between 34% and 46% (see also Figure 1).[ii] 40.3% of participants did not complete any additional waves following Time 1 and 18.2% of participants completed all four waves.[iii] Our highest response rate is lower than prior panel studies that have used MTurk, which find response rates near 60% (Berinsky, Huber, & Lenz, 2012), but they are roughly similar to the three-wave study completed by Turner-Zwinkels and colleagues (2015) for their study of politicized identity in the 2012 U.S. election. Attrition rates in longitudinal studies often bias the mean-level estimates and so the precise means reported in the latter time points of our study should not be taken as precise nor accurate estimates; however, attrition rates only weakly bias regression coefficients (like we use in the models we report; Gustavson, von Soest, Karevold, & Røysamb, 2012), suggesting that these analyses are more likely to be returning accurate estimates. We will discuss these limitations further in the discussion. All of our analyses focus on Time 1 and Time 2 where we find slightly higher response rates.[iv]

Measures

We measured participants' affective reactions to the two major political candidates (Barack Obama and Mitt Romney), beliefs about the harms and benefits of each candidate winning the election, and their moral conviction towards the candidates at all time points. At the start of the survey the participants indicated whether they were eligible to vote, their current vote choice and, if undecided, who they leaned towards supporting (participants who did not report any form of support for either candidate were not included in the analyses). In our sample, and consistent with the liberal-skew in the MTurk population (Berinsky, Huber, & Lenz, 2012), 67% of our sample supported Obama and 27% of our sample supported Romney.

Then, to assess moralization, participants completed a validated three-item measure of moral conviction about their attitude towards each candidate in a randomized order (see Skitka & Morgan, 2014, for more information on the measurement of moral conviction). They indicated the extent their feelings about Barack Obama [Mitt Romney] were "connected to your beliefs about fundamental right and wrong?", "a reflection of your core moral beliefs and convictions?", and "based on moral principle?" The responses for each item were on a five-point scale and were labeled *not at all*, *slightly*, *moderately*, *much*, and *very much*. These three items were highly reliable (Obama Time 1 α = .92; Obama Time 2 α = .92; Romney Time 1 α = .94; Romney Time 2 α = .94). Based on their candidate preference at Time 1, the measure was recoded to represent *moral conviction* for their preferred (P) and non-preferred (NP) candidate.

Following these questions, participants completed measures of their emotions towards the two candidates and the anticipated harms and benefits of the two candidates being elected (order of both candidate presentation and emotions/harms & benefits were randomized). To measure emotional reactions, participants were asked to "check the emotions that you feel when you think about Barack Obama [Mitt Romney]" and were given the complete list of emotions and feelings from the PANAS (Watson & Clark, 1999). Then, on the subsequent pages of the survey, participants rated the extent they felt each emotion they checked on a four-point scale with the labels *slightly*, *moderately*, *much*, and *very much*. The checklist and the subsequent ratings were combined to create items ranging from 0 = not at all (i.e., not checked) to 4 = very much. The PANAS specifies several specific subscales (see Watson & Clark, 1999) and we chose to focus on three subscales based on past theoretical and empirical work in moral psychology. Specifically, we focused on the *hostility* (angry, disgusted, hostile, irritable, loathing, scornful; Obama Time 1 α = .87; Obama Time 2 α = .87; Romney Time 1 α = .84; Romney Time 2 α = .84) and *fear* (afraid, frightened, jittery, nervous, scared, shaky; Obama Time 1 α = .79; Obama Time 2 α = .78; Romney Time 1 α = .78; Romney Time 2 α = .78) subscales for participants' non-preferred candidate. We assessed *enthusiasm* about participants' preferred candidate with the joviality subscale (cheerful, energetic, enthusiastic, excited, happy, joyful, lively; Obama Time 1 α = .86; Obama Time 2 α = .86; Romney Time 1 α = .80; Romney Time 2 α = .88). These scales all had good reliability, were strongly correlated across survey waves, and were only moderately correlated with each other (see Table S1 in the Supplemental file).

To measure beliefs about harms and benefits at Time 1 and Time 2, we adapted Eagly, Mladinic, and Otto's (1994) scale of beliefs about attitudes. This measure is designed to capture the belief component of attitudes by assessing the potentially idiosyncratic beliefs people have about particular attitudes (cf. Breckler, 1984). Similarly, in our study we sought to capture the potentially idiosyncratic beliefs people have about the harms and benefits of the two candidates winning the election. Therefore, we asked participants to write down what they thought would be the consequences of each candidate winning the election and then rate each of the consequences they listed on a seven-point scale with the labels *very harmful*, *moderately harmful*, *slightly harmful*, *uncertain*, *slightly beneficial*, *moderately beneficial*, *very beneficial*.

Specifically, participants were asked to "write down up to three effects or consequences that you think Barack Obama [Mitt Romney] winning the 2012 presidential election will have for society, you personally, or any other group or person that you think is relevant." Participants were given three open ended boxes to respond. On the following page, participants reported how beneficial or harmful they thought each of the effects they listed would be using the scale described above. The harm/benefit ratings averaged across the effects listed by the participants were used as measures of perceived *Benefits* of participants' preferred and, after being reverse scored, *Harms* of non-preferred candidates. The scales measuring harms and benefits both had good reliability (Obama Time 1

α = .93; Obama Time 2 α = .95; Romney Time 1 α = .94; Romney Time 2 α = .95) and were only moderately correlated (see Table S1 in the Supplemental file).

We also included several covariates that were all measured at Time 1. These included education (1 = *less than high school* to 8 = *doctoral/professional degree*), gender, age, political ideology (based on a branching question where participants were first asked to indicate if they were liberal, conservative, moderate, uncertain, or something else, see SOM; 1 = *strong liberal*, 9 = *strong conservative*) and political knowledge. Political knowledge was measured with four multiple choice questions about who is the Chief Justice of the U.S. Supreme Court, who is the Prime Minister of the United Kingdom, who is the Speak of the House of Representatives, and which area (out of four) the U.S. Federal government spends the least money. The measure is the proportion of correct answers (zero correct = 4.1%, 1 correct = 12.2%, 2 correct = 22.8%, 3 correct = 32.8%, all correct = 28.1%; α = .49). We included political knowledge because of its importance in work on political engagement (Galston, 2001); our conclusions are the same if we remove this variable from our analysis.

Table 1

Means, Standard Deviations, and Available n for Each Measure From Time 1 and Time 2.

	Time 1			Time 2		
	M	*SD*	*n*	*M*	*SD*	*n*
Obama Supporters						
Moral Conviction-P	3.62	1.07	1070	3.70	1.03	490
Benefits	6.04	1.31	1072	6.18	1.30	492
Enthusiasm	0.87	1.03	1062	0.76	0.99	486
Moral Conviction-NP	3.00	1.48	1067	3.42	1.38	490
Harms	6.39	0.90	1070	6.35	1.03	492
Hostility	1.36	1.18	1064	1.45	1.18	484
Fear	0.81	0.92	1071	0.88	0.93	487
Ideology	2.87	1.81	1074			
Political Knowledge	0.66	0.28	1074			
Gender	0.49	0.50	1074			
Education	5.07	1.38	1074			
Age	32.36	11.68	1074			
Romney Supporters						
Moral Conviction-P	3.40	1.18	437	3.49	1.16	197
Benefits	6.08	1.32	438	6.09	1.48	197
Enthusiasm	0.56	0.76	436	0.72	0.97	196
Moral Conviction-NP	2.98	1.42	435	3.27	1.39	196
Harms	6.32	1.16	438	6.44	1.02	197
Hostility	1.20	1.16	437	1.21	1.14	194
Fear	0.75	0.90	436	0.75	0.88	196
Ideology	6.77	1.98	439			
Political Knowledge	0.69	0.27	439			
Gender	0.52	0.50	439			
Education	5.05	1.34	439			
Age	37.21	13.39	439			

Note. P = preferred candidate; NP = non-preferred candidate.

The means and standard deviations for all of our measures at Time 1 and Time 2 are in Table 1. A correlation table of all of the variables used in our analyses is available in Table S1 in the Supplemental file.

Results

Analyses Plan

Our primary question was whether affect and/or beliefs about harms and benefits predict an increase in moral conviction in the run-up to the election. We were also interested in whether there was evidence for moral conviction predicting increases in affect and beliefs about harms and benefits as suggested by previous research (Skitka & Wisneski, 2011a, 2011b). To capture both possible causal directions simultaneously, we used a latent difference score analysis (Little et al., 2006; McArdle, 2009) estimated with MPlus Version 6 (Muthén & Muthén, 2010). In this type of analysis, the change from Time 1 to Time 2 is estimated as a latent variable based on the means and variances in the model that is conceptually similar to a difference score. By using a latent difference score analysis we can test how individual differences in our Time 1 variables predict changes from Time 1 to Time 2. For example, a positive effect of Time 1 enthusiasm on Δmoral conviction-P indicates that people with more enthusiasm at Time 1 show a greater increase in moral conviction-P from Time 1 to Time 2 than people with lower levels of enthusiasm. Our models were estimated with full information maximum likelihood estimation. This estimation technique estimates the missing data conditional on the available data in the model and helps reduce some (but not all) of the negative effects of participant attrition (Gustavson, von Soest, Karevold, & Røysamb, 2012) and is preferable to dropping participants who did not complete all of the measures (Peugh & Enders, 2004; cf. Turner-Zwinkels et al., 2015).

As a first stage in our analysis, we estimated the mean change between Time 1 and Time 2 for our primary variables. For these analyses we estimated a latent change score model, similar to the model in Figure 1A of Little et al. (2006), but with two exceptions. First, we used observed rather than latent estimates of the Time 1 and 2 variables to simplify the estimation of an already complex model. Second, we added the covariates (education, age, gender, ideology, political knowledge; see Supplemental file for example syntax). These models estimate the change between Time 1 and Time 2 of our primary model at the means of the covariates (see Table 2; for all estimates in the model see Table S2 in the Supplemental file). We find that, on average, there were no significant changes on five of the seven variables. Only moral conviction-NP and beliefs about harm showed significantly positive levels of change indicating that both moral conviction-NP and harms were, on average, higher at Time 2 compared to Time 1. These overall non-significant changes across many of our variables, however, mask significant variation in their levels from Time 1 to Time 2 (McArdle, 2009). There was significant variation in all of the estimates of change indicating that there was significant heterogeneity in the changes across participants. This indicates that although on average there was little change in moral conviction, affect, and beliefs, this was not the case for all of the participants.

Table 2

Estimated Time 1 → Time 2 Change and Residual Variance in Change

	Estimated Average Change	Residual Variance
Moral Conviction-P	0.02 (.03)	0.77 (.04)***
Benefits	0.04 (.05)	1.49 (.08)***
Enthusiasm	-0.05 (.03)	0.64 (.04)***
Moral Conviction-NP	0.24 (.05)***	1.58 (.08)***
Harms	0.10 (.03)**	0.73 (.04)***
Hostility	0.02 (.04)	1.06 (.06)***
Fear	0.01 (.03)	0.72 (.04)***

Note. All estimates adjust for demographic, political knowledge, and ideology covariates. P = preferred candidate; NP = non-preferred candidate. The standard error for each estimate is also included in the parentheses.

**p < .01. ***p < .001.

In the remaining analyses, we examine how moral conviction, affect, and beliefs predict the heterogeneity in change across participants. Our model included the covariates (education, age, gender, ideology, political knowledge) and all of our primary measures at Time 1, which in turn predicted the estimated Time 1 to Time 2 change in our primary measures. That is, we combined our latent change estimates into one model and used the Time 1 variable and the covariates to predict these latent change estimates. We also allowed all Time 1 measures to correlate and all of the change scores to correlate. This model was a saturated model and therefore had perfect fit. All estimated coefficients, including path estimates, covariances, residual variances, and intercepts are available in Table S3 in the Supplemental file.

We tested our questions in the following order. First, we examined whether affect and beliefs at Time 1 predicted moral conviction at Time 2, as well as whether moral conviction at Time 1 predicted affect and beliefs at Time 2. Second, we tested whether the antecedents of moral conviction differed for liberals, conservatives, and moderates.

Antecedents of Moral Conviction

The standardized coefficients and their 95% confidence intervals for the affect and belief variables at Time 1 predicting changes in moral conviction for preferred (Figure 2, Top) and non-preferred (Figure 2, Bottom) candidates are in Figure 2.

Only two effects were significantly different from zero. The data showed that enthusiasm is a positive predictor of changes in moral conviction for one's preferred candidate; the more enthusiastic people were about their preferred candidate at Time 1, the more morally convicted they were about their preferred candidate at Time 2 (Figure 3, Top).
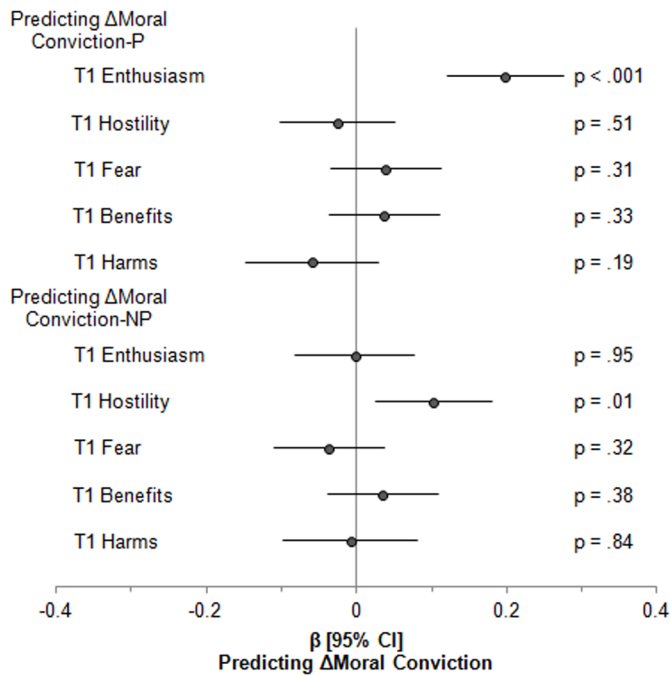
Figure 2. Standardized estimates, 95% confidence intervals, and p-values of time 1 affect and harms/benefits predicting time 1 → time 2 change in moral conviction.

The data also showed that hostility is a positive predictor of changes in moral conviction for one's non-preferred candidate. The more hostile people were about their non-preferred candidate at Time 1, the more morally convicted they were about him at Time 2 (Figure 3, Bottom). Fear, along with beliefs about the harms and benefits of each candidate winning, were not associated with changes in moral conviction. These results were consistent with theories that emphasize the role of affect in moral judgment (e.g., Haidt, 2001), as well as cross-sectional evidence that links affect with moralization (e.g., Rozin et al., 1997; Rozin & Singh, 1999). Our results go beyond these initial findings by revealing that an individual's affect (i.e., enthusiasm and hostility) at Time 1 predicts greater change in moral conviction from Time 1 to Time 2. In short, (specific) affect precedes changes in moral conviction about one's preferred and non-preferred political candidates.
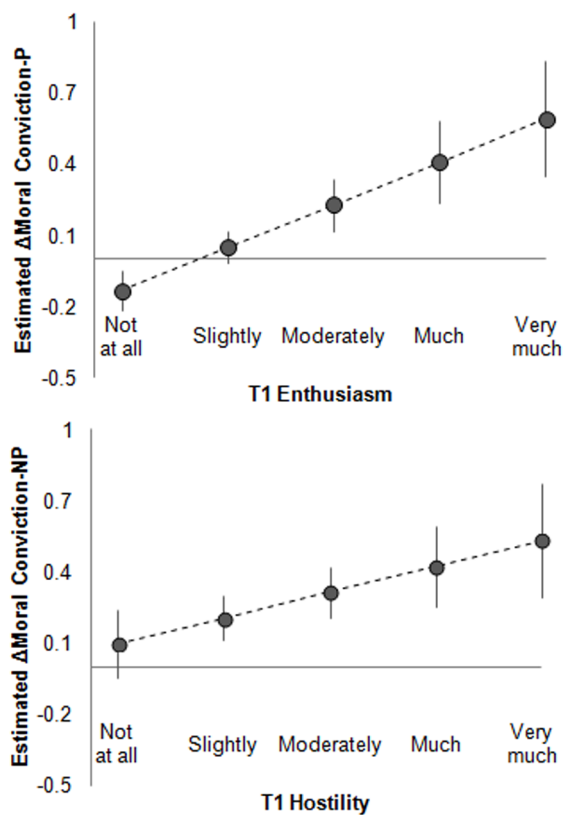
Figure 3. Estimated change in moral conviction at levels of time 1 enthusiasm and hostility.

Note. Error bars are 95% confidence intervals of the estimated change. All estimates based on the model reported in Figure 2 and Table S3 in the Supplemental file.

Consequences of Moral Conviction

One advantage of our design is that we were also able to simultaneously estimate the effects of moral conviction at Time 1 on changes in affect and beliefs. The standardized coefficients and their 95% confidence intervals for the moral conviction-preferred and moral conviction non-preferred variables at Time 1 predicting changes in affect (Figure 4, top three sections) and beliefs (Figure 4, bottom three sections) are in Figure 4.

The data showed that four estimates were significantly different from zero suggesting that moral conviction at Time 1 was associated with changes in affect and beliefs at Time 2. Moral conviction for participants' preferred candidate was associated with changes in enthusiasm and moral conviction for non-preferred candidates was associated with changes in hostility at Time 2. Both results suggest that moral conviction increases the attitude relevant positive or negative affect people felt towards their preferred and non-preferred candidates over the election cycle.
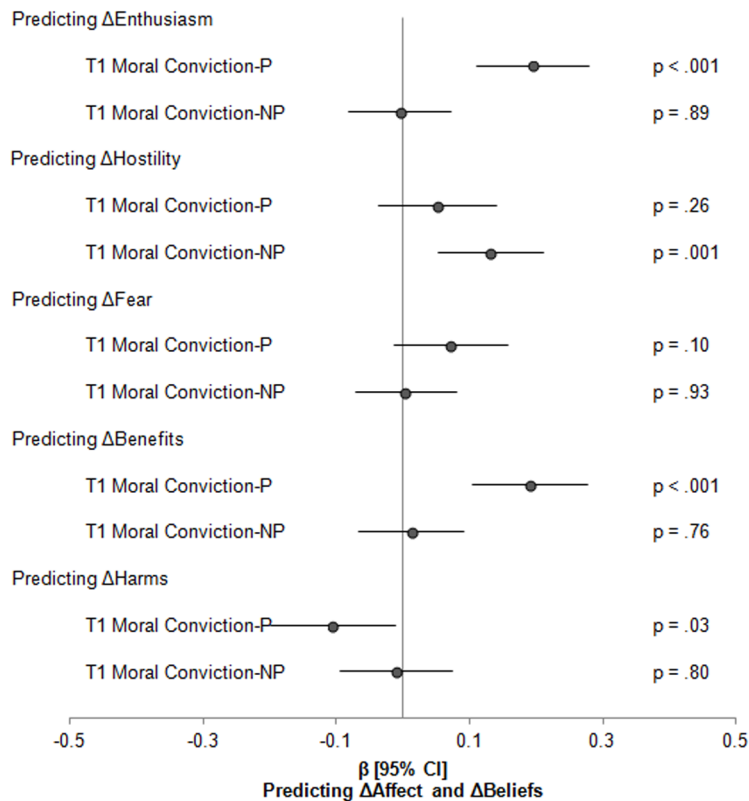
Figure 4. Standardized Estimates, 95% Confidence Intervals, and p-Values of Time 1 Moral Conviction Predicting Time 1 → Time 2 Change in Affect and Beliefs.

These estimates show that people with the highest levels of moral conviction about their preferred and non-preferred candidates at Time 1 experienced increases in enthusiasm and hostility about them (respectively) at Time 2, whereas those with the lowest levels of moral conviction experienced decreases in both enthusiasm and hostility at Time 2 (see Figure 5, top panels).

Although there were no effects on fear, there were effects of moral conviction on beliefs. Moral conviction for preferred candidates was associated with an increase in perceived benefit of their preferred candidate and a decrease in perceived harm of their non-preferred candidate from Time 1 to Time 2 (this latter finding was unexpected; see Figure 5, bottom panels). In total, these results were consistent with the idea that some affective reactions follow from moralization (e.g., Skitka & Wisneski, 2011a) and that changes in beliefs may also follow moralization rather than serve only as a catalyst or antecedent of moral conviction (e.g., Haidt, 2001).
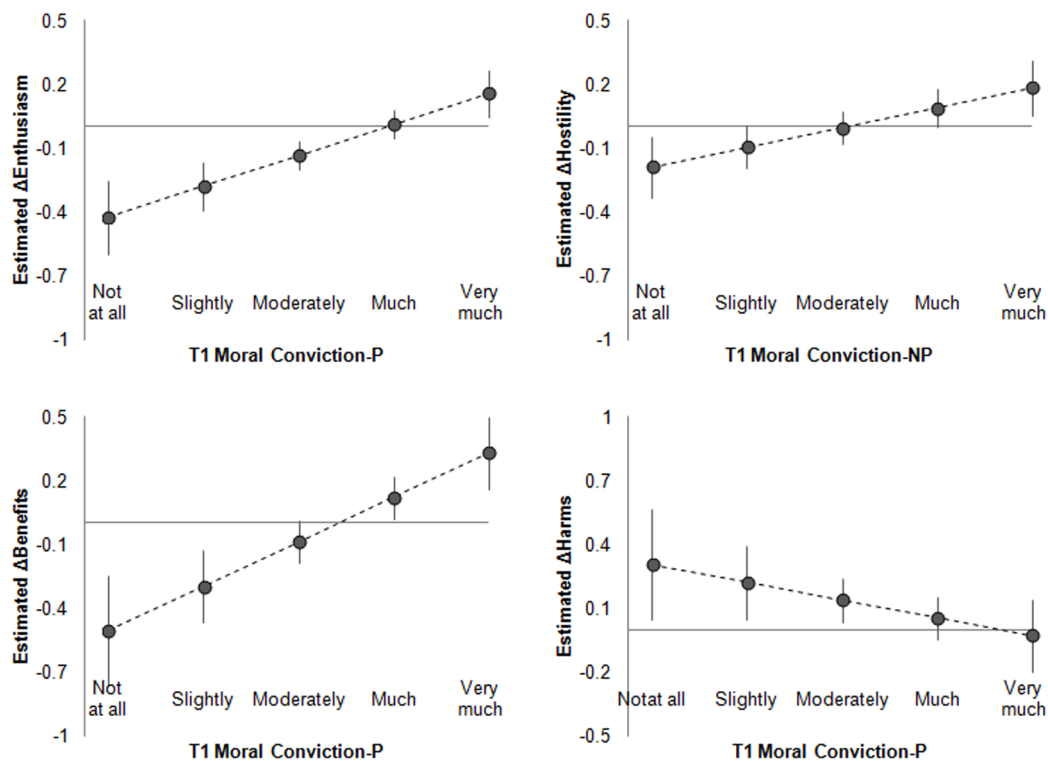
Figure 5. Estimated Change in Affect and Beliefs at Levels of Time 1 Moral Conviction.

Note. Error bars are 95% confidence intervals of the estimated change. All estimates based on the model reported in Figure 4 and Table S3 in the Supplemental file.

Negativity Bias or Ideological Similarity?

We were also interested in whether predictors of changes in moral conviction differed for liberals, conservatives, and moderates. If the negativity bias hypothesis is correct, then negative affect and anticipated harms associated with non-preferred candidates should predict changes in moral conviction more strongly for conservatives than for liberals, with moderates falling somewhere in between. Conversely, we should see that positive affect and anticipated benefits of preferred candidates predict changes in moral conviction more strongly for liberals than for conservatives, with moderates falling somewhere in between. In contrast, if the ideological similarity hypothesis is correct, then the predictors of changes in moral conviction should be largely the same for liberals, conservatives, and moderates.

To test the negativity bias and the ideological similarity hypotheses, we conducted multi-group latent change models. This analysis allowed us to estimate a model for liberals (people identifying as liberals on the first part of the branching ideology question, see SOM), conservatives (people identifying as conservatives), and moderates (people who did not identify as liberals or conservatives), constrain a path to equality between the two models, and see if that constraint negatively affected the overall model fit. If the constraint negatively impacted model fit then it suggests that the paths differed between three ideological groups. We repeated this procedure for each primary path (i.e., not the covariates) predicting changes in moral conviction of preferred and non-preferred candidates. The results from these constraints are in Table 3.[v]

Table 3

Tests of the Differences Between the Paths for Liberals, Moderates, and Conservatives.

Paths Constrained	Δχ2 (df = 2)	Liberals β	Moderates β	Conservatives β
T1 Enthusiasm → ΔMoral Conviction-P	1.42	.22***	.26**	.11
T1 Hostility → ΔMoral Conviction-P	0.98	-.06	-.06	.03
T1 Fear → ΔMoral Conviction-P	3.51	.07	-.13	.03
T1 Benefits → ΔMoral Conviction-P	**9.35****	**.14****	**-.13**	**.04**
T1 Harms → ΔMoral Conviction-P	2.59	-.05	-.18*	.03
T1 Enthusiasm → ΔMoral Conviction-NP	0.81	-.02	.05	-.06
T1 Hostility → ΔMoral Conviction-NP	2.49	.06	.20**	.08
T1 Fear → ΔMoral Conviction-NP	1.17	-.04	-.10	.01
T1 Benefits → ΔMoral Conviction-NP	**16.84*****	**.12****	**-.20****	**.21***
T1 Harms → ΔMoral Conviction-NP	3.45	-.01	-.10	.16
		n = 752	n = 451	n = 310

Note. Δχ^2 are the changes in χ^2 from an initial multi-group model where all of the paths were allowed to differ between groups. This was a fully saturated model and so therefore had perfect fit (χ^2 [0] = 0). Standardized path estimates are from this initial model. Simultaneously constraining all of the paths in the model to equality negatively affected model fit (Δχ^2 [20] = 32.38, p = .04). Bolded rows highlight significant differences between the three ideological groups.

*p < .05. **p < .01. ***p < .001.

The constraints were not significant for any of the affect predictors, suggesting that enthusiasm, hostility, and fear predicted changes in moral conviction equally well (or poorly, as the case may be) for liberals, conservatives, and moderates. Two of the path constraints for benefits were significant at p < .05. The pattern of results, however, was inconsistent with both the negativity bias and the ideological similarity hypothesis. In short, beliefs about the benefits of one's preferred candidate winning were positively associated with changes in moral conviction for both liberals and conservatives; however, for moderates, benefits were negatively associated with changes in moral conviction. These slopes are depicted in Figure 6 (Top).

This figure shows that liberals, moderates, and conservatives who see benefits to their preferred candidate winning do not show increases in moral conviction over time; these groups all show estimates of change near the zero-point. The moderates who see some harms to their preferred candidate winning (the left half of the x-axis), however, do show some increases in moral conviction overtime, whereas the liberals or conservatives who see some harms in their preferred candidate winning show decreases in moral conviction overtime. Very similar results are found for Time 1 benefits predicting changes in moral conviction of one's non-preferred candidate (Figure 6, Bottom). Overall, these results suggest that for ideologues (both liberals and conservatives), not finding benefits to one's preferred candidate winning the election leads to demoralization. These results should be interpreted with care, however, because the mean on Time 1 benefits is 6.05 on a 7-point scale with few participants scoring below the midpoint.
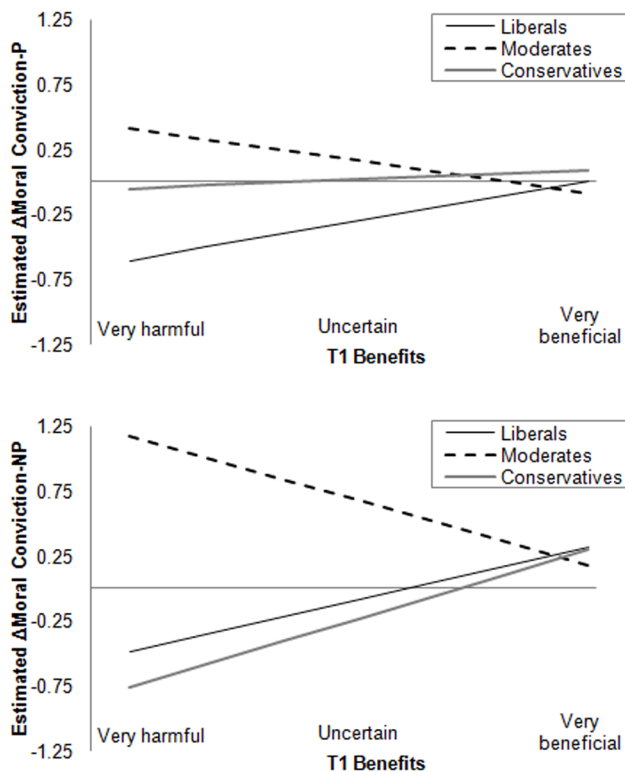
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Figure 6. Estimated change in moral conviction at levels of time 1 benefits for liberals, moderates, and conservatives.

Note. All estimates based on the null multi-group model (see Table 3).

Overall, the results for affect and perceived harms were consistent with the similarity hypothesis and no effects were consistent with the negativity bias hypothesis. The effect for benefits predicting moral conviction suggests that beliefs may have moralizing or de-moralizing effects depending on whether people are firmly committed to one side of the political spectrum or the other, although these results should be treated with caution.

Discussion

The current study provided a unique opportunity to explore the roles of affect and beliefs as antecedents and consequences of moral conviction. Both affect and beliefs have been implicated in previous theory and research as potential contributors to moralization. This prior work primarily focused on cross-sectional studies or on studies of moral judgments – both types of studies that make it impossible to make conclusions about the process of attitude moralization. We used a longitudinal design to explore (a) how affect and beliefs predict changes in moral conviction, (b) whether there are reciprocal effects of moral conviction on changes in affect and beliefs, and (c) whether different ideological groups have different or similar predictors of changes in moral conviction.

It is important to note that on average, people did not reliably report stronger moral conviction about their preferred candidate from Time 1 to Time 2, a result that suggests that people who are inclined to moralize their attitudes about preferred candidates, will do so quite early in an election cycle. That said, we did find variation in changes in moral conviction for both candidates, such that some people report stronger moral conviction from Time 1 to

Time 2 than other people do. Moralization, then, was not observed for preferred candidates in the sample as a whole, but was observed for some individual participants. We were also able to use the measures of affect and beliefs to predict the degree to which moral convictions changed.

Our analysis of the antecedents and consequences of moral conviction found that affective reactions contribute to moralization. We found that enthusiasm significantly predicted increases in moral conviction of preferred candidates and hostility significantly predicted increases in moral conviction of non-preferred candidates as election day approached. These results suggest that both positive and negative affect lead to increases in moral conviction, and that previous cross-sectional correlations between moral convictions and emotions may be the result, in part, of people basing their moral convictions on affect associated with the attitude object. Importantly, our data also provide some evidence that moral conviction may also result in stronger affective reactions overtime. Moral conviction associated with preferred and non-preferred candidates, respectively, predicted changes in enthusiasm and hostility between Time 1 and Time 2. This potential recursive relationship between affect and moral conviction may help explain the vim and vigor of moral beliefs—strong affective reactions lead people to identify an attitude as morally relevant, and moral conviction also subsequently leads to stronger attitude relevant affect. Whether the precise processes underlying both possible causal directions are the same remains for further study. For example, affect may color information processing so that people focus on the morally relevant aspects of a situation or event, whereas a moral conviction may make an issue more salient and therefore intensify subsequent affective reactions in attitudinally relevant contexts (e.g., an election).

Evidence that affect is an antecedent to moral conviction helps tie the moral conviction literature more closely to other research on affect and moral judgments (e.g., Eskine, Kacinik, & Prinz, 2011; Pizarro, Inbar, & Helion, 2011; Schnall, Haidt, Clore, & Jordan, 2008; Valdesolo & DeSteno, 2006). Previous research that has demonstrated close ties between affect and moral judgment, however, has typically studied the role of incidental rather than the integral affect (where incidental affect refer to affect unrelated to the moral judgment). Unlike previous work showing that incidental affect, such as disgust from working in a messy workspace, can lead to harsher moral judgments (however, also see Landy & Goodwin, in press, for a meta-analytic critique of the incidental disgust effects), the results of the current study showed that integral affect—that is, attitude relevant affect—is needed to increase moral conviction. Only people who had strong affective reactions to preferred and non-preferred candidates revealed subsequently strong moral convictions over time. Importantly, enthusiasm for preferred candidates and hostility for non-preferred candidates were both implicated in changes in moral conviction, a result that indicates that moral conviction is as much about approaching desired outcomes as it is about avoiding non-desired outcomes (cf. Janoff-Bulman & Carnes, 2013). The finding that integral affect leads to stronger moral conviction is also consistent with recent experimental studies showing that attitude relevant, but not attitude irrelevant, disgust predicts increased moral conviction (Wisneski & Skitka, 2013). Specifically, participants shown disgusting images related to the issue of abortion (e.g., pictures of aborted fetuses) reported higher moral conviction about their abortion attitude, relative to control participants. This effect, however, was not found for participants exposed to disgusting images not relevant to abortion such as those related to the issue of animal rights or taken from the International Affective Priming System (e.g., pictures of piles of dirty dishes or overflowing toilets). Taken together, the results from the current study, along with these initial experimental results, provide evidence that integral affect appears to be an important antecedent of moral conviction.

Notably, fear did not play a role as either an antecedent or a consequence of moral conviction. This finding suggests that not just any negative affect is an antecedent or consequence of moral conviction. The question then becomes,

what is common about enthusiasm and hostility that can explain why they are associated with moral conviction, whereas fear was not? One possibility is that both enthusiasm and hostility are related to approach motivation, whereas fear is related to avoidance motivation (Brader, 2005; Carver & Harmon-Jones, 2009; Valentino et al., 2011). Approach motivations are organized around obtaining desired incentives and avoidance motivations are organized around avoiding threats. The characteristics of approach motivations fit well with the tendency for morally convicted people to actively engage in the issues (Skitka & Bauman, 2008) and express approach-related emotions like anger and hostility (Mullen & Skitka, 2006). The activist intentions and behaviors of people who are morally convicted may be more about obtaining a desired end state and actively courting threats (e.g., from authorities) suggesting that they are less associated with avoidance motivations (cf. van Zomeren et al., 2011; Zaal et al., 2011). That said, there may also be something unique about the context of the month immediately prior to a major election that makes approach motivations particularly strong, such as the desire to see particular policy goals enacted or politicized social identity affirmed. Other possible elicitors of moralization may be more associated with avoidance motivation. For example, unexpected tragic events such as those described in the introduction as moral shocks (Jasper, 1997; Jasper & Poulsen, 1995) could lead to moralization based more on avoidance and a desire to ensure that such events never happen again. Future research (perhaps outside of an election context) is needed to explore whether moral conviction is associated with approach motivation and whether a broader class of approach motivation-related constructs could be antecedents to moral conviction.

The role of beliefs was more contextualized than the role of affect. Although beliefs about benefits and harms did not predict changes in moral conviction overall, our analysis of ideology indicated that benefits predicted changes in moral conviction of both preferred and non-preferred candidates for people on both ends of the political spectrum. That is, for people who had a clear stake in the election, perceived benefits were associated with no changes in moral conviction, but when these same people perceived harms associated with their preferred candidate (the bottom half of the scale) the measure predicted demoralization, or decreases in moral conviction. Moderates, however, did not show the same effect for benefits, instead showing increases in moral conviction when they recognized some harms of their preferred candidate. We did not anticipate this effect and remain cautious in our interpretation. Very few participants scored low on the perceived benefits scale and so the estimates may not hold up in future studies. At this stage, we suggest that it may be worthwhile to further examine how beliefs about the harms and benefits of an issue may have different moralization and demoralization effects for people who have a stake in the issue.

We also found that perceived harms and benefits of electing one's preferred or non-preferred candidate were predicted by strength of moral conviction — especially moral conviction for the preferred candidate. The finding that perceived harms and benefits follows from rather than precedes strength of moral conviction suggests that moral conviction alters how people think about the issue (cf. Haidt, 2001). In this case, it altered the extent they thought a political candidate will cause harms or benefits. This change in the perceptions of harms and benefits may further exacerbate moral disagreements because moral convictions may lead people to change their perceptions about the potential harms or benefits of a given candidate or policy outcome. Future research is needed to test whether these changes in perceived harms and benefits constitute little more than post-hoc rationalizations for the affective antecedents of moral conviction, or if they predict meaningful behavioral outcomes such as people's willingness to become politically engaged (e.g., Skitka & Wisneski, 2011b) or how people respond to decisions made by political authorities.

Interestingly, despite the evidence that liberals and conservatives share different moral values (Duckitt & Sibley, 2009; Graham, Haidt, & Nosek, 2009; Hofmann, Wisneski, Brandt, & Skitka, 2014) and that conservatives tend to be more sensitive to threat than liberals (Hibbing et al., 2014; Perry & Sibley, 2010), the current study found far more similarities than differences in what moralizes liberals' and conservatives' attitudes. That is, although we found that moderates differed from partisans in a small number of cases, we did not find any evidence that liberals and conservatives reliably differed from one another. Overall, the political ideology results most clearly follow that of the ideological similarity hypothesis that predicts that many psychological processes are similar across the ideological divide (Skitka & Washburn, in press).

There are limitations of this study that should be examined in future studies. First, we focused on one election in one political context. Although moral conviction appears to be a powerful force both in and outside of the United States (e.g., Skitka, Liu, Yang, Chen, Liu, & Xu, 2013), the antecedents and consequences in the context of an election may be different in other political contexts that are, for example, less polarized, have more choices in terms of political parties and candidates, or are less democratic. We suspect, however, that the affective under-pinnings likely form the basis for moral conviction in a variety of contexts. Past work has demonstrated that moral convictions are associated with stronger affective reactions across a number of issues (Mullen & Skitka, 2006; Skitka & Wisneski, 2011a) and moral judgments in a number of cultures are often tied to strong affective reactions (Haidt, Koller, & Dias, 1993; Rozin, Lowery, Imada, & Haidt, 1999). Putting these findings together we believe that affect may be a likely antecedent of moral conviction for other issues and in other socio-political contexts.

Second, one alternative explanation for the association between affect and moral conviction is that the moral conviction measures refer to "feelings" towards the candidates and so therefore could themselves be considered additional measures of affect. This is possible, but we believe unlikely. Unpublished data from one of our lab's has found that moral conviction items using wording related to "thoughts," "beliefs," or "feelings" do not reveal differences in the associations between moral conviction and a number of other variables, including affect (Bauman, Lytle, & Skitka, 2007). This suggests that merely including the word "feeling" in the moral convictions items did not inflate the association between enthusiasm, hostility, and moral conviction.

Third, our study used an MTurk sample. These samples have been used in past work on moral conviction and political behavior more broadly, with effect estimates consistent with the effects found in other convenience samples (e.g., Brandt & Wetherell, 2012; Ryan, 2014; Weinberg, Freese, & McElhattan, 2014) and nationally representative samples (e.g., Skitka, Bauman, & Lytle, 2009); however, they are not representative of any population. For example, some work (including the current sample) finds that MTurk participants are often younger and more politically liberal than the rest of the population in the United States (Berinsky, Huber, & Lenz, 2012; Paolacci & Chandler, 2014). Participants from MTurk also often participate in many different studies - more than even the average introduction to psychology undergraduate students (Chandler, Mueller, & Paolacci, 2014). Nonetheless, an MTurk sample allowed us to test the role of affect and beliefs in a longitudinal design and with a sample of adults (rather than students; cf. Henry, 2008; Sears, 1986). Moreover, we were able to replicate the association between moral conviction and affect that has been found in cross-sectional work with *other* adult samples (Mullen & Skitka, 2006; Skitka & Wisneski, 2011a; see also Rozin, Markwith, & Stoess, 1997; Rozin & Singh, 1999), suggesting that the associations found in our study are not atypical from those found in previous work. That said, given the nature of MTurk samples, the findings of the current study should not be taken as the final word, but rather should serve as one small step towards understanding the antecedents of moral conviction that can be built upon in future longitudinal studies with representative samples.

Third, as with many studies, our conclusions are limited to the measures that we used. We tried to ameliorate this issue by using pre-existing measures of affect, beliefs, and moral conviction, but future studies may make different choices. For example, there are many ways to measure affect, and indeed measuring affect is a key controversy in the emotion and affective literature. One possibility is to adopt measures that tease apart the role of valence and arousal in moralization (Russell, Weiss, & Mendelsohn, 1989), or to use measures of implicit affect (Payne, Cheng, Govorun, & Stewart, 2005). Similarly, there are other methods for measuring participants' beliefs about the harms and benefits of a candidate winning an election. We chose an approach that allows participants to express their own idiosyncratic and salient perceptions of harms and benefits; however, others may choose to adopt much more general measures (e.g., "How harmful will Mitt Romney be for the United States if he wins the election?"), specific measures pre-determined by the researcher (e.g., Rozin & Singh, 1999), or implicit measures (Gray, Schein, & Ward, 2014). Just as affect and beliefs can be measured in different ways, it is also possible for researchers to focus on other types of affect (e.g., guilt, pride) or beliefs (e.g., the patriotism of the candidates). One direction for future studies is to include a comprehensive set of affects and beliefs associated with one of the taxonomies of morality (e.g., Graham, Nosek, Haidt, Iyer, Koleva, & Ditto, 2011; Janoff-Bulman & Carnes, 2013), rather than affects and beliefs more clearly tied to harm and fairness domains used in the current study, to test how specific the associations between affect, beliefs, and moral conviction are across time. One last measurement issue: the 4-item measure of political knowledge had low reliability ($\alpha = .49$), limiting the conclusions that can be drawn with this one particular measure. A low reliability might be expected from a measure of knowledge that includes both hard and easy items and, as reported in the methods, we found reasonable variability on this measure. Fortunately, the other measures in the study all had medium to high levels of reliability.

Fourth, as with many longitudinal studies, we experienced sample attrition across waves. There are ways in which people who responded to multiple waves of the study might differ from those who only responded at the first way. Our analyses suggest that the number of waves completed were only weakly correlated with characteristics of the participants. We tried to lessen these effects by estimating missing data using some of the variables on which response rate was correlated, but this is far from a perfect solution. Low response rates are a problem for most survey research. Even research conducted by professional polling companies often has response rates below 10% (Pew Research Center, 2012). This does not excuse low response rates in the current study, but rather highlights that, no matter the particular sample, there is a need for replication in additional samples to be sure that the effects can be generalized to a larger population.

In conclusion, moral conviction is a consequential construct that is a robust predictor of many political judgments and decisions. In this study, we focused on the antecedents and consequences of moral conviction in the 2012 U.S. presidential election and found evidence that enthusiasm underlies moral conviction about people's preferred candidates and hostility underlies moral conviction about people's non-preferred candidates. We also found some support that belief-oriented measures of anticipated harms and benefits predict increases in moral conviction, but only for clear partisans. By turning our attention to the antecedents of moral convictions and their dynamics overtime it may be possible to better anticipate when people will feel morally convicted about an issue and when they will treat it as more of a pragmatic concern.

Supplementary Materials

Supplemental Tables and Methods Information. doi:10.5964/jspp.v3i2.434-s1

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Notes

i) Rozin (1999) discusses moralization at both the individual and the societal level. Regardless of the level, moralization is conceptualized as a change in the moral relevance of a particular attitude or behavior over time.

ii) Because we removed participants who did not pass the instructional manipulation checks, the actual response rates are slightly higher.

iii) Analyses indicated that, at Time 1, participants who completed both waves were significantly different ($p < .05$) than participants who completed only Time 1 on some variables, although all effect sizes were small (Cohen's d ranged |.01| to |.22|). The three largest differences suggests that people who completed both Time 1 and Time 2 were almost four years older ($d = .22$), more morally convicted about their non-preferred candidates ($d = -.20$), and 6% more politically knowledgeable ($d = -.17$) than people who only completed Time 1.

iv) Data from Time 3 and 4 are available from the first author. Analyses of this data find that there are very few significant effects of affect and beliefs on moral conviction post-election, suggesting that the moralization process is more likely to occur prior to a salient political event than after.

v) This technique is different than if we were to treat ideology as a continuous variable; however, it has the distinct advantage of allowing us to easily compare people who self-identify as liberals and conservatives, but also the many participants who do not self-identity as either liberal or conservative. The typical methods for assessing moderation with a continuous variable assumes that the moderates fall somewhere between liberals and conservatives; however, this may not be the case, especially in an election context where people with clear ideological beliefs have more at stake than people who are more in the political middle. We conducted additional models where we modeled the interaction between the Time 1 predictor and continuous measure of ideology. None of these interactions were significant (p's ranged .14-.89).

Funding

Competing Interests

Acknowledgments

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Brandt, Wisneski, & Skitka   233

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