



Research Article

Moral Conviction, Emotion, and the Influence of Episodic versus Thematic Frames

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ABSTRACT

Morally convicted attitudes—attitudes grounded in core beliefs about fundamental right and wrong—play an important role in political psychology, public opinion, and political behavior. Extant research suggests that these attitudes are intensely held, likely to evoke strong emotional responses, more stable and less amenable to compromise, and perceived to be universally true. Despite a large body of research on how morally convicted attitudes affect behavior and choice, several open questions remain about their antecedents. There are two questions central to this article: First, can the news media effectively communicate a sense of moral conviction to the mass public? Second, if so, what are the factors that cause these attitudes to become morally convicted? Drawing on framing theory, appraisal theory, and research in political communication, we hypothesize that moral conviction can be effectively communicated using episodic (as opposed to thematic) frames, and also, that emotional reactions to such frames contribute to the development of moral conviction. Using four survey experiments and two replications, we find some support for our hypotheses, but we also find that treatment effects are likely context dependent. We close with a discussion about avenues for future research.

KEYWORDS

Moral conviction; framing; emotion

Morality has always been central to the study of politics, and recent research makes it clear that "moralized" attitudes (i.e., attitudes grounded in core beliefs about fundamental right and wrong; see Skitka & Morgan, 2014, p. 96) play an important role in public opinion and political psychology (Haidt, 2012). For example, moralized attitudes are intensely held (J. Baron & Spranca, 1997; Fiske & Tetlock, 1997), more likely to evoke emotions like guilt and contempt (Tangney et al., 2007), perceived to be objective and universally true (Skitka, 2010), and less amenable to compromise than run-of-the-mill attitudes (Ryan, 2017). Furthermore, research suggests that members of the mass public respond to elites' attempts to frame issues in moral terms (Clifford & Jerit, 2013; Clifford et al., 2015), that individuals use moral considerations when making a wide array of judgments on both political and nonpolitical issues (Jayawickreme & DiStefano, 2012; Smith et al., 2014), and

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② Supplemental data for this article can be accessed on the publisher's website at https://doi.org/10.1080/10584609. 2020.1793847.

that the effects of moralized attitudes stretch beyond issues traditionally considered to be part of the moral domain (Ryan, 2014). As a whole, this literature demonstrates that attitudes related to a fundamental sense of right and wrong are foundational elements of political behavior (Graham et al., 2009; Lakoff, 2002, 2008).

Though it is clear that moral conviction plays an important role in peoples' evaluations of the political world, the processes by which attitudes become moralized in the first place, and the extent to which moral conviction can be communicated via the mass media, are still not well understood (Feinberg & Willer, 2015; Rhee et al., 2019). Here, we focus our efforts on two related questions. First, to what extent can moral conviction be communicated via traditional news media? Second, to the extent that moral conviction can be communicated via the news media, what psychological mechanisms are at the source of such movement? Drawing on appraisal theory and framing theory, we hypothesize that episodic frames (as opposed to thematic frames), due to their personal nature, elicit strong emotional reactions, and further, that such reactions are integral to the development of moral conviction. Using a series of survey experiments, we first show that episodic framing tends to increase peoples' sense of moral conviction relative to thematic framing. Second, using mediation analyses, we show that increases in negative emotion seem to drive increased feelings of moral conviction. Our results also indicate that such effects are context dependent—experiments on low- and mediumsalience issues produce significant results while experiments on high-salience issues do not.

What is Moral Conviction?

According to Skitka (2010), morally convicted attitudes have three defining characteristics: (1) they are perceived as universal truths (p. 269); (2) they are experienced "as if they were readily observable, objective properties of situations, or as facts about the world" (p. 269); and (3) they operate independent of external authorities (p. 270). To illustrate, Ryan (2014) contrasts someone saying "I don't like Brussels sprouts" with someone else saying "I don't like to clean my bathroom with the American flag." While the former is a strongly held attitude, cleaning one's bathroom with a patriotic symbol may very well cause another to experience some sense of anger or contempt (p. 383). This is to say that while many attitudes are intensely held, morally convicted attitudes are unique because they are grounded in one's sense of right and wrong.

As it is helpful to define moral conviction, it is also helpful to describe concepts that are related to—but different from—moral conviction. As stated earlier, recent research notes that moral conviction often accompanies other measures of attitude intensity (Ryan, 2014, 2017), including extremity, personal importance (i.e., the subjective importance a person attributes to a given attitude), and personal relevance (i.e., the extent to which someone believes a particular issue or other attitude object holds significant consequences for some aspect of their lives). Although research has shown these concepts to be distinct aspects of attitude strength/intensity (Krosnick et al., 1993), the correlations between them and moral conviction are significant. And, while these other measures of attitude intensity are not thought to cause an increased sense of moral conviction, it is clear that research on moral conviction ought to use these other measures of attitude intensity as controls.

When Do Attitudes Become Morally Convicted?

Although the literature's working definition of moral conviction draws on traditional theories of morality that are rooted in justice and fairness (e.g., Turiel, 1983), social intuitionist theory suggests that one's sense of moral right and wrong may be rooted in gutlevel emotional reactions to any given stimulus (Graham et al., 2009; Haidt, 2012). In other words, when someone's actions are perceived to violate standards that govern acceptable behavior, one experiences an immediate affective response that produces a sense of moral condemnation. One then rationalizes the offending behavior to be a moral transgression. Additional research suggests that moral judgments are often accompanied by strong emotions (Skitka et al., 2005, p. 897). Even further, scholars note that increased emotional investment and moral conviction may cause one to take moral action and to motivate a formerly disinterested person to become interested, informed, and active on a given issue (Snow & Soule, 2010). Very recent research finds strong links between anger, disgust, and moral conviction (Clifford, 2019; Wisneski & Skitka, 2017) and that feelings of moral conviction correspond to physiological arousal (Garrett, 2019). In short, the literature suggests that links between emotion and moral conviction are strong.

Given knowledge of the emotional antecedents of moral conviction, how can a sense of right and wrong, as it is applied to a particular political issue, be conveyed by the mass media? Appraisal theory suggests that people assess a particular stimulus, and the resulting appraisal governs emotional reactions (e.g., Lazarus, 1991). In other words, emotions are context dependent, and the uniqueness of a particular emotional reaction lies "in the nature of the situation it represents" (Clore & Ortony, 2008, p. 632). For example, given a focus on a particular public policy, a person who is exposed to a frame carrying details of human interest that are related to the policy may react differently than a person who is exposed to a frame that centers on "pale statistics" (Aarøe, 2011, p. 210). Here, one's appraisal of the frame centering on human interests may cause one to experience a greater emotional reaction than one's appraisal of the frame focusing on statistical information. Further, it follows that different frames of the same issue (producing different forms of cognitive processing and appraisal) may affect the degree to which one develops a morally convicted attitude on that issue.

Research tying appraisal theory to framing theory suggests that *emphasis* frames (i.e., frames that direct focus to differing aspects of a given issue; see Druckman, 2011, pp. 285-286), when they shift focus away from population-level considerations onto the plights of sympathetic individuals, may affect the degree to which people develop a sense of moral conviction on the issue in question. Along the same lines, communications research suggests that episodic frames (i.e., frames that focus on a particular individual's personal story) cause people to experience a greater emotional reaction than thematic frames (i.e., frames that focus widely on social trends, functions, or statistics). Briefly, episodic frames put a "face" on a political problem (Semetko & Valkenburg, 2000, p. 95) and "provide specific characters at which the receivers can direct their emotional reactions" (Aarøe, 2011, p. 210), whereas thematic frames provide no such focal points. Empirical work demonstrates that episodic frames cause people to feel a greater sense of empathy, and further, to incorporate their emotions into evaluations of the relevant policy (Gross, 2008; Gross & D'Ambrosio, 2004). Similarly, Aarøe (2011) finds that episodic frames are more persuasive than thematic frames when they cause an intense emotional response. Ultimately, there exist strong theoretical links between framing, emotion, and

persuasion, but the literature on how moral conviction relates to framing and emotional response is still sparse (but see Clifford, 2019).

Drawing on work concerning emotion, moral conviction, and framing, we advance our first hypothesis:

H1: Episodic frames cause people to feel a greater sense of moral conviction than thematic frames.

We also advance a second hypothesis regarding the role of emotion in the development of morally convicted attitudes. As stated earlier, there is valuable research linking episodic frames to intense emotional reactions, but also, related work suggests that certain discrete emotions are specifically connected to particular morally convicted attitudes (e.g., Brader & Marcus, 2013; Wisneski & Skitka, 2017). Anger, for example, is often linked to unjust violations of basic moral rights (Giner-Sorolla, 2012; Petersen, 2010). Disgust is instead tied to moral judgments of impure, victimless actions that are perceived as culturally inappropriate (Rottman et al., 2014). Unlike moral anger, which tends to lead to condemnation and punishment, moral disgust is adaptively suited for avoiding undesirable cooperative partners and for signaling one's moral motivations (Kupfer & Giner-Sorolla, 2017; Rottman et al., 2018). Here, we investigate the role of several specific moral emotions, including anger and disgust, but we primarily focus on negative emotion more generally as it affects moral conviction. As such, our second hypothesis (H2) regarding the communication of moral conviction is:

H2: Increased negative emotions are a primary causal mechanism linking frame type to moral conviction.

Study 1: Design, Data, and Methods

Study 1 consisted of a survey experiment and a replication where respondents were randomly assigned to one of two treatment groups: the thematic group or the episodic group. Respondents in the thematic group were asked to read about two bills meant to restrict fracking in the state of Pennsylvania. Importantly, the frame communicated information in a very general way with emphasis on studies regarding fracking waste and groundwater pollution. The full text is as follows:

The other day, a Pennsylvania state senator leading the charge to restrict fracking within state boundaries described two bills that the Pennsylvania government may soon consider: the first would prohibit fracking in state parks, and the second would allow municipalities to limit where fracking can take place within their boundaries. The senator, having spoken with several experts on fracking, cited several scientific studies in support of the bills.

Describing the studies, the senator noted, "study after study shows that fracking waste can pollute groundwater resources and eventually contaminate drinking water. Further, the risks increase as the drilling gets closer and closer to residential neighborhoods. This is an important issue, and that's why these bills are necessary."

The senator went on and argued that, "the state must pass these bills to combat these risks and hold energy companies accountable for their actions."

Opponents of the bills say these claims are unsubstantiated. They also note that Pennsylvania should not pass the bills because they may lead to higher energy prices, a greater dependency on foreign oil, and a decrease in energy security.

In contrast, respondents in the episodic group read a prompt that concerned a particular family's struggle with fracking. The wording of the prompt is as follows:

The other day, a Pennsylvania state senator leading the charge to restrict fracking within state boundaries described two bills that the Pennsylvania government may soon consider: the first would prohibit fracking in state parks, and the second would allow municipalities to limit where fracking can take place within their boundaries. The senator, having spoken to several families affected by fracking, told one family's story.

According to the senator, "the mother of this family of four told me, about a month after the energy company started drilling a quarter mile from their house, their drinking water began to smell and taste funny—like gasoline, or chemicals. Eventually, they found out that their water was combustible. Seriously, they could hold a lit match to the running water, and the water would light on fire. Two weeks later, their sons began suffering from serious eye irritation and skin rashes."

The senator went on and argued that, "it's cases like these that make these bills necessary the state must step up and do the right thing to protect citizens from big corporations that don't care about anything but their own profit margins."

Opponents of the bills say these claims are unsubstantiated. They also note that Pennsylvania should not pass the bills because they may lead to higher energy princes, a greater dependency on foreign oil, and a decrease in energy security.

Importantly, each of the experimental prompts conveys information about fracking waste, water pollution, and holding energy companies accountable. Only the episodic frame, however, includes a personal element—and it is thus more likely to elicit an emotional response.

After reading the given prompt, respondents were asked to indicate their agreement/ disagreement with the two bills (coded on a 7-point scale in the first data set and a 5-point scale in the second data set, then folded to measure attitude extremity). They were then asked to rate the importance of the attitude (measured on a 5-point scale where 0 indicated the attitude is not important and 4 indicated that the attitude is very important) and personal relevance (measured on a 5-point scale where 0 indicated that the outcome does not affect the respondent at all and 4 indicated that the outcome affects the respondent a great deal). Respondents were then asked about the level of moral conviction they attached to the attitude. The measure, which is straightforward and commonly used in the literature (Ryan, 2017; Skitka et al., 2005), consisted of two questions. The first asked, "To what extent is your position on [stimulus] a reflection of your core moral beliefs and convictions?" and the second asked, "To what extent is your position on [stimulus] connected to your beliefs about fundamental right and wrong?" Responses to each were recorded on scales that ranged from 0 to 4 and then combined into a single scale that ranged from 0 to 8 (where 0 indicated no moral conviction and 8 indicated maximum moral conviction). Finally, respondents were asked to indicate the extent to which the prompt made them feel a sense of anger, disgust, sadness, anxiety, and fear (fear was only measured in the Lucid sample). All responses were coded on a 5-point ascending scale, and all responses were combined in a summated rating scale (Cronbach's alphas: MTurk sample = 0.88; Lucid sample = 0.91).

For analytical purposes, all measures discussed previously were scaled to range from 0

Data collection for the original experiment took place in January 2017. Respondents were recruited with Amazon.com's Mechanical Turk (MTurk),² and were paid 0.25 USD for the completion of the survey (n = 274). Data collection for the replication took place in June 2019. Respondents were recruited with Lucid's Fulcrum Exchange (n = 723).

We test H1 using a seemingly unrelated regression (SUR) model (Zellner, 1962). While moral conviction is central to our hypothesis, Ryan (2016) notes that three other concepts related to attitude intensity share variance with moral conviction: attitude extremity (defined as the degree to which an individual's attitude diverges from neutral); personal importance (defined as a person's perception of the amount of personal importance attached to the issue); and personal relevance (defined as the the extent to which an issue or attitude holds significant consequences to an aspect of one's life). Briefly, not only is it advantageous to test whether the treatment affects respondents' sense of moral conviction, but it is also advantageous to test whether the treatment increases respondents' sense of moral conviction more than the other measures of attitude intensity. As the SUR model estimates four separate regressions simultaneously (in each, the independent variable is the treatment condition; the dependent variables are moral conviction, attitude extremity, personal relevance, and attitude importance), it also estimates the variancecovariance matrix of the estimators, which can be used to compare coefficients. Specifically, it allows us to test three relevant linear hypotheses:

$$b_{treatment, \ y = moral \ conv.} - b_{treatment, \ y = extremity} = 0$$
 $b_{treatment, \ y = moral \ conv.} - b_{treatment, \ y = importance} = 0$
 $b_{treatment, \ y = moral \ conv.} - b_{treatment, \ y = relevance} = 0$

Testing the linear hypotheses allows us to assess the extent to which episodic frames (relative to thematic frames) influence moral conviction alone, or whether they influence all related measures of attitude intensity.

Does emotion play a role in developing a sense of moral conviction? To test H2, we estimate a series of mediation models using the mediation package in R (Tingley et al., 2014). In short, the routine estimates a first-stage model where emotional response is the dependent variable and treatment condition is the independent variable of interest. Covariates include political party (a categorical variable with independents held as the baseline and leaners coded as partisans), ideology (coded on a 7-point scale from "extremely liberal" to "extremely conservative"), sex (coded 1 for female and 0 for male), and age (coded on a 7-point ascending scale). The dependent variable in the second-stage model is the relevant measure for attitude intensity (i.e., moral conviction, attitude extremity, attitude importance, or personal relevance). Independent variables include the same covariates as the first-stage model, and because the measures of attitude intensity are correlated, such variables that are not being modeled are included as covariates (for similar approaches, see Clifford, 2019; Gadarian & Albertson, 2014).⁴

Results

To what extent does the episodic frame engender a sense of moral conviction in respondents?⁵ To what extent does the episodic frame move other measures of attitude intensity? Results for both samples are shown in Figure 1. Focusing first on the MTurk sample, those that received the episodic frame experienced significantly more moral conviction than those that received the thematic frame (b = .087, se = .035, p = .01). There were no significant differences between treatment conditions on any of the other measures of attitude intensity (personal relevance: b = -.017, se = .038, p = .64; attitude importance: b = .027, se = .036, p = .45; attitude extremity: b = .015, se = .038, p = .68). Furthermore, the treatment effect on moral conviction was significantly larger than that on personal relevance ($F_{1.1088} = 4.11$, p = .04). The differences between the treatment effect on moral conviction and effects on the other two dependent variables were not significant (attitude importance: $F_{1,1088} = 1.44$, p = .23; attitude extremity: $F_{1,1088} = 1.90$, p = .17).

Turning to the Lucid sample, respondents who received the episodic frame again experienced more moral conviction than those who received the thematic frame (b = .103, se = .019, p < .01). There were also significant treatment effects on attitude importance (b = .054, se = .020, p < .01) and attitude extremity (b = .100, se = .028, p < .01). There were no significant effects on personal relevance (b = .025, se = .023, p = .29). Furthermore, the effects on moral conviction were significantly larger than those on personal relevance ($F_{1.2884} = 6.73$, p < .01) and attitude importance ($F_{1.2884} = 3.05$, p = .08), but they were not significantly larger than those on attitude extremity ($F_{1,2884} = 0.01$, p = .92).

To what extent do emotional reactions help explain treatment effects? Results from the mediation models are shown in Table 1. Looking first at the models fit to the MTurk sample, emotional response mediates the effect of the treatment on three of four

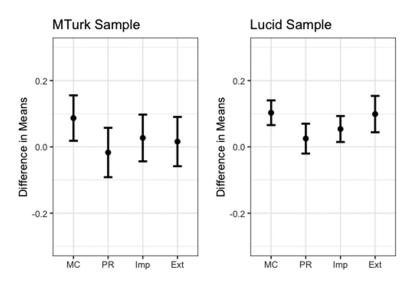


Figure 1. Treatment effects (Study 1).

Treatment effects estimated with SUR models, error bars represent 95% confidence intervals. MTurk sample size is 274. Lucid sample size is 723. MC = moral conviction, PR = personal relevance, Imp = attitude importance, Ext = attitude extremity. All variables are scaled to range from 0 to 1.

| Table 1. IV | iediation models (3) | luuy 1). | | | | |
|-------------|------------------------|-----------------|------------|-----------|--|--|
| MTurk Sam | MTurk Sample (n = 272) | | | | | |
| | Moral Conv. | Pers. Relevance | Importance | Extremity | | |
| ACME | .019 ** | .019 * | .028 ** | 013 | | |
| ADE | .057 * | 067 * | 020 | 015 | | |
| Lucid Samp | le (n = 691) | | | | | |
| | Moral Conv. | Pers. Relevance | Importance | Extremity | | |
| ACME | .020 ** | .014 ** | .012 ** | .014 * | | |
| ADE | .042 ** | 043 * | 011 | .017 | | |

Table 1 Mediation models (Study 1)

dependent variables-moral conviction, personal relevance, and attitude importance. In two cases, emotional response also has a direct effect on the dependent variable, but it should be noted that one of these effects is in the theoretically expected direction (as negative emotion increases, one's sense of moral conviction increases) and one is opposite to theoretical expectations (as negative emotion increases, personal relevance decreases).

Analyses were done with the mediation package (Tingley et al., 2014) in R. Each analysis was based on 2000 simulations. ACME = average causal mediation effect (indirect effect); ADE = average direct effect.

The models fit to the Lucid data tell a similar story. Emotional response mediates the effects of the treatment on all four dependent variables. Emotion also exerts direct effects on moral conviction and personal relevance (and again, the effect is opposite of expectations).⁷

Conclusions

Both experiments in Study 1 support H1—episodic frames do seem to cause people to feel more moral conviction than thematic frames. However, as the episodic frame increases one's sense of moral conviction, it also increases other measures of attitude intensity, and treatment effects on moral conviction are not consistently larger than treatment effects on attitude importance or attitude extremity (though they are larger than treatment effects on personal relevance). The data also show support for H2—the episodic frame seems to increase respondents' negative emotional reactions, and those reactions mediate the relationship between the treatment and moral conviction. Respondents' emotional reactions to the episodic frame also mediate the treatment's effect on personal relevance and attitude importance.

Study 2: Design, Data, and Methods

The design of Study 2 was very similar to Study 1. Again, respondents were randomly assigned to a thematic group or an episodic group, but the policy in question concerned transgender bathroom rights.8 In short, while fracking is a medium-salience issue with only moderate partisan polarization (see Ciuk & Yost, 2016, (pp. 333-335), transgender bathroom rights are a symbolic issue with a clearer sense of partisan position taking (Brown, 2017). Furthermore, the Trump administration made the rollback of transgender

^{*}p < .05; **p < .01

protections an important part of the legislative agenda through 2018 and 2019 (Goodnough et al., 2019). Due to the increased salience and polarization, respondents may have a more crystallized attitudes on transgender issues, and such "pretreatment effects" may mute our experimental treatment effects (Druckman & Leeper, 2012). Ultimately, Study 2 tested the extent to which the treatment effects found in Study 1 are generalizable to more salient issues. The full text of the prompt for the thematic condition was as follows:

The other day, a local governor spoke out against enforcing the provision of gender-neutral bathrooms in public buildings. In a press interview, the governor made a convincing case in support of his position.

In particular, the governor cited surveys showing how people feel their rights to be violated by policies allowing transgender individuals to use whatever bathrooms they please. The governor pointed out that favoring the preferences of transgender people leads to unfair favoritism of these individuals by failing to take into account the discomfort that cis-gender individuals could feel when they are forced to share the privacy of bathrooms with individuals of the opposite biological sex. The governor noted that he felt a responsibility to protect the comfort of the majority, and this meant keeping bathrooms divided in the way they always have been.

The governor's opposition worries that continuing to restrict the freedoms of transgender individuals will impede social progress and lead to increased discrimination and intolerance.

In contrast, those who were exposed to the *episodic* condition read the following prompt:

The other day, a local governor spoke out against enforcing the provision of gender-neutral bathrooms in public buildings. In a press interview, the governor told one family's story:

"A mother of four children told me about her middle-school son's emotional discomfort when standing at the urinal of his school's bathroom and noticing a student in his class, Jamie, walking into the bathroom stall. Even though her son, Patrick, knew that Jamie had begun to identify as male, Patrick also knew that Jamie was biologically female. Patrick's mother explained that Patrick has recently begun going through puberty and has felt increasingly concerned with his privacy. Patrick reported being very distressed by the possibility of Jamie catching a glimpse of him going to the bathroom. The governor noted that he felt a responsibility to protect the comfort of the majority, and this meant looking out for children like Patrick by keeping bathrooms divided in the way they always have been.

The governor's opposition worries that continuing to restrict the freedoms of transgender individuals will impede social progress and lead to increased discrimination and intolerance.

As with Study 1, both frames contained important information about transgender bathroom policy, but only the episodic frame contained a personal story.

Also as with Study 1, respondents were asked to indicate their agreement/disagreement with the proposed policy after reading the prompt (measured on a 7-point scale in the MTurk data and a 5-point scale in the Lucid data, then folded to measure attitude extremity). Respondents were then asked questions tapping attitude importance (a 5-point ascending scale), personal relevance (a 5-point ascending scale), moral conviction (two questions, each coded on 5-point scales then combined into a summated rating scale), and emotion (anger, disgust, sadness, and anxiety, all of which are coded on 5-point ascending scales). Again, fear was only measured in the follow-up study. Cronbach's alpha

for the emotion scale in the first data set was 0.81, and for the second data set, it was 0.87. Again, all measures were rescaled to range from 0 to 1.

Data collection for the original survey experiment took place in January 2017. Respondents were recruited via MTurk (n = 333) and paid 0.35 USD for completing the survey. A replication study was conducted in June 2019. Respondents were recruited using Lucid's Fulcrum Exchange (n = 786).

As with Study 1, a SUR model was used to test H1, and mediation analyses were used to test H2.

Results

How does the episodic frame affect respondents' sense of moral conviction and other measures of attitude intensity? Results for both samples are shown in Figure 2. In the MTurk sample, the episodic frame exerted significant effects on moral conviction (b = .064, se = .037, p = .09), but effects on the other three measures of attitude intensity were not significant (personal relevance: b = .038, se = .029, p = .19; attitude importance: b = .017, se = .036, p = .63; attitude extremity: b = .004, se = .038, p = .92). Though the treatment effect on moral conviction was significant, it was not statistically larger than any of the other treatment effects (personal relevance: $F_{1,1324} = 0.32$, p = .57; attitude importance: $F_{1,1324} = 0.82$, p = .36; attitude extremity: $F_{1,1324} = 1.28$, p = .26).

Turning attention to the Lucid sample, the episodic frame exerted no significant treatment effects (moral conviction: b = .017, se = .024, p = .47; personal relevance: b = -.005, se = .025, p = .86; attitude importance: b = .006, se = .023, p = .81; attitude extremity: b = .019, se = .027, p = .47). In addition, treatment effects on moral conviction were statistically indistinguishable from treatment effects on any of the other three

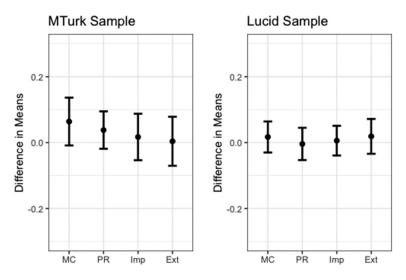


Figure 2. Treatment effects (Study 2).

Treatment effects estimated with SUR models; error bars represent 95% confidence intervals. MTurk sample size is 333. Lucid sample size is 786. MC = moral conviction, PR = personal relevance, Imp = attitude importance, Ext = attitude extremity. All variables are scaled to range from 0 to 1.

measures (personal relevance: $F_{1,3136} = 0.39$, p = .53; attitude importance: $F_{1,3136} = 0.11$, p = .74; attitude extremity: $F_{1.3136} = 0.00$, p = .95).

Do emotional responses explain movement in moral conviction or any of the other measures of attitude intensity? Results of the mediation models are shown in Table 2. Results of models fit to the MTurk data suggest that, even on more salient issues, episodic frames increase emotional response, which mediates treatment effects on moral conviction and attitude extremity. All results on the Lucid data are null, suggesting that emotion does not mediate the effects of the treatment on highly salient and polarized issues.

Analyses were done with the mediation package (Tingley et al., 2014) in R. Each analysis was based on 2000 simulations. ACME = average causal mediation effect (indirect effect); ADE = average direct effect.

Conclusions

Results from this set of experiments provide mixed support for H1. The study conducted in 2017 suggested that episodic frames do affect one's sense of moral conviction, but the higher-powered follow-up study conducted in 2019 failed to replicate this effect. Similarly, the results of the mediation models fit to the MTurk data showed support for H2—that emotion does mediate the effects of the treatment condition on moral conviction (as well as on attitude extremity), but again, the models fit to the Lucid data did not confirm this.⁹

Additional Studies

We ran two additional studies in 2017, concurrently with Study 2, both on high-salience issues that were central to the 2016 election—health care and immigration. Experimental designs were very similar to the studies discussed previously, and methods were the same. Respondents were recruited with MTurk (n = 337) for the health care study, and n = 335for the immigration study and paid 0.35 USD for completion of the survey.

For both experiments, respondents were randomly assigned to either an episodic condition or a thematic condition. The policy central to the heath care experiment concerned a Medicaid expansion that would require a 20 USD billion spending plan. The policy central to the immigration experiment concerned Immigration and Customs Enforcement (ICE) agents arresting and deporting undocumented immigrants. Like previous experiments, those exposed to the episodic condition were presented with information concerning human interests while those exposed to the thematic frame were not (full

| Τā | ible | 2. | Mediation | models | (Study | 2). |
|----|------|----|-----------|--------|--------|-----|
| | | | | | | |

| MTurk Sample (n = 330) | | | | | | |
|----------------------------|-------------|-----------------|------------|-----------|--|--|
| | Moral Conv. | Pers. Relevance | Importance | Extremity | | |
| ACME | .019 * | .009 | .008 | .015 * | | |
| ADE | .034 | .025 | 029 | 036 | | |
| Lucid Sample ($n = 768$) | | | | | | |
| | Moral Conv. | Pers. Relevance | Importance | Extremity | | |
| ACME | .006 | .006 | .004 | .001 | | |
| ADE | 003 | 020 | .002 | .018 | | |

^{*}p < .05; **p < .01

text of the experimental conditions can be found in the supplemental material). Also, like previous experiments, after reading the prompt, respondents were asked to indicate their agreement/disagreement with the proposed policy (measured on a 7-point scale, then folded to measure attitude extremity). Respondents were then asked questions tapping attitude importance (a 5-point ascending scale), personal relevance (a 5-point ascending scale), moral conviction (two questions, each coded on 5-point scales then combined into a summated rating scale), and emotion (anger, disgust, sadness, and anxiety, all of which are coded on 5-point ascending scales). For both data sets, Cronbach's alpha for the emotion scale was acceptable (0.85 for the health care experiment and 0.89 for the immigration experiment). All measures were rescaled to range from 0 to 1.

Results

There were no significant treatment effects in the health care experiment (moral conviction: b = -.023, se = .031, p = .45; personal relevance: b = -.046, se = .031, p = .15; attitude importance: b = -.036, se = .030, p = .23; attitude extremity: b = .032, se = .033, p = .33), and there were no significant differences between the treatment effects on moral conviction and any of the other dependent variables (personal relevance: $F_{1,1340} = 0.26$, p = .61; attitude importance: $F_{1,1340} = 0.08$, p = .77; attitude extremity: $F_{1.1340} = 1.50$, p = .22). The mediation analyses suggested that emotional response to the episodic condition may have had a small direct effect on attitude extremity, but all other results were null (see Table 3). Regarding the results on the immigration experiment, there were no significant treatment effects (moral conviction: b = -.014, se = .031, p = .65; personal relevance: b = -.018, se = .031, p = .57; attitude importance: b = -.046, se = .032, p = .15; attitude extremity: b = -.044, se = .034, p = .19), there were no significant differences between the treatment effects on moral conviction and the other dependent variables (personal relevance: $F_{1.1332} = 0.01$, p = .93; attitude importance: $F_{1,1332} = 0.49$, p = .49; attitude extremity: $F_{1,1332} = 0.42$, p = .52), and the mediation analyses produced null results (see Table 3).¹⁰

Analyses were done with the mediation package (Tingley et al., 2014) in R. Each analysis was based on 2000 simulations. ACME = average causal mediation effect (indirect effect); ADE = average direct effect.

Table 3. Mediation models (additional studies).

| Health Care | Experiment ($n = 337$) | | | |
|-------------|--------------------------|-----------------|------------|-----------|
| | Moral Conv. | Pers. Relevance | Importance | Extremity |
| ACME | 000 | .000 | 000 | 000 |
| ADE | 011 | 030 | 014 | .056 * |
| Immigration | Experiment ($n = 335$) | | | |
| | Moral Conv. | Pers. Relevance | Importance | Extremity |
| ACME | .006 | .001 | .001 | .001 |
| ADE | .007 | .001 | 029 | 034 |

^{*}p < .05; **p < .01

Conclusions

These results further suggest that framing effects are bound by context. On two highsalience issues, the differences between episodic and thematic framing are indistinguishable from zero. Furthermore, it appears that respondents' emotional reactions to the treatment conditions do not affect moral conviction, and to the extent that such reactions affect other measures of attitude intensity, the effects are small. Ultimately, these results tentatively suggest that the framing effects found in Studies 1 and 2 may be generalizable to other low- and medium-salience issues, but not to high-salience issues.

Discussion

First, where previous work suggests that moral shock and disgust- or anxiety-inducing images can cause one to develop a sense of moral conviction (Clifford, 2019; Wisneski & Skitka, 2017), the present research suggests that moral conviction can be conveyed in more common forms of communication. More specifically, it can be communicated with the use of episodic (as opposed to thematic) frames. Second, the present research finds that the emotional response caused by exposure to the episodic frame plays an important role in the process by which attitudes become morally convicted. These findings are in line with previous research (Clifford, 2019; Wisneski & Skitka, 2017), and they also align nicely with Garrett (2019), who demonstrates that physiological arousal, often interpreted as the body's reaction to an anxiety-inducing stimulus, accompanies an increased sense of moral conviction.

Third, with respect to the role of emotion in the development of moral conviction, the present research builds on extant work in important ways. Wisneski and Skitka (2017), for example, used shocking and disgusting images to show that disgust is an emotional antecedent to moral conviction. Similarly, Clifford's (2019) experiments focused specifically on disgust and anger, which caused individuals to develop moralized attitudes. With respect to emotion, the current study is a bit broader in scope. More specifically, though we did expect our episodic frames to cause respondents to feel a greater sense of emotion, they were not designed to cause respondents to feel a specific discrete emotion (e.g., anger, disgust). In fact, our data from Study 1 suggest that respondents exposed to the episodic frames experienced greater reactions across a wide range of emotions compared to those exposed to the thematic frame. In Study 2, of the discrete emotions measured, respondents exposed to the episodic frame felt a greater sense of sadness than those exposed to the thematic frame (see Table 4 for more details). Furthermore, though we conclude that negative emotional reactions to the episodic frames contribute to respondents' sense of moral conviction, our supplemental analyses on the mediating effects of each of the discrete emotions (reported in the supplemental material) indicate that the discrete emotions have no independent mediating effect. Our results do not necessarily conflict with previous studies suggesting that disgust and anger are the primary emotional antecedents of moral conviction (e.g., Clifford, 2019; Wisneski & Skitka, 2017), however. As stated earlier, our experiments were not designed to cause respondents to feel a specific discrete emotion, where experiments reported in the other works were. Also, we used a form of the PANAS, which is an imperfect tool to measure discrete emotions (Harmon-Jones et al., 2016). More specifically, the PANAS was designed to measure general negative

and positive affect, and as such, it produces responses that are highly correlated (Watson et al., 1988). Future work on the topic might consider using a measurement technique designed to allow respondents to record their reactions on a wide range of discrete emotions without producing data with such strong correlations (see, for example, Rhodes-Purdy et al., 2020).

Fourth, our results are somewhat in line with previous research on episodic and thematic frames (e.g., Aarøe, 2011; Gross, 2008). Specifically, as episodic frames communicate personal stories which cause people to feel a greater sense of emotion, these frames can, in turn, fuel a greater sense of moral conviction. In three of our six experiments, respondents exposed to the episodic frame reported feeling more intense emotional reactions than those exposed to the thematic frame (results of all t-tests are reported in Table 4). This suggests that effects of episodic versus thematic frames are bound by political context. More specifically, issue salience and polarization likely play a role in the extent to which framing affects emotional reactions and one's sense of moral conviction. Previous research suggests that "pretreatment" affects (which occur when people have been exposed to a good deal of information and debate on a particular issue before participating in an experiment) tend to mute framing effects (Druckman & Leeper, 2012). Furthermore, a good deal of research suggests that cueing effects and effects of emotion are minimized in high-salience and polarized issues (Arceneaux & Vander Wielen, 2017; Chong & Mullinix, 2019; Ciuk & Yost, 2016), and our results align nicely with this research. In other words, it is likely the case that, at the time the experiments were fielded, peoples' attitudes on fracking and transgender bathroom rights (in 2017) were not yet fixed because those issues were not saturated with media coverage, nor were they deeply ingrained in partisan politics. This being the case, peoples' attitudes on these issues could be influenced by the episodic frame. On the other hand, peoples' attitudes on health care, immigration, and transgender bathroom rights (in 2019) were more solidified because of increased media attention and parties taking positions on the issues. Here, with the richer information environment and political identities linked with issue positions, peoples' attitudes were likely fixed before they encountered the episodic frame, and though the episodic frame may have caused people to feel a bit more emotion, the frame was not strong enough to compete with information respondents had already encountered prior to their participation in the experiment. Therefore, the different frames had no measurable effects on moral conviction or other measures of attitude intensity.

Table 4. Comparing emotional reactions: T-tests.

| | Fr (MTurk) | Fr (Lucid) | TBR (MTurk) | TBR (Lucid) | HC | lmm |
|-----------|------------|------------|-------------|-------------|-------|-------|
| Anger | 4.63 | 7.42 | 1.32 | -0.13 | -0.87 | 0.49 |
| Disgust | 4.45 | 7.36 | 1.33 | 0.71 | -0.41 | -0.01 |
| Sadness | 3.78 | 6.91 | 2.65 | 2.54 | 2.49 | 1.10 |
| Anxiety | 1.04 | 1.96 | 0.77 | 0.62 | -0.64 | 0.35 |
| Fear | NA | 2.30 | NA | 1.20 | NA | NA |
| Composite | 4.15 | 6.08 | 1.85 | 1.23 | 0.30 | 0.57 |

Fr = Fracking, TBR = Transgender Bathroom Rights, HC = Health Care, Imm = Immigration. Cell entries are tstatistics. Positive numbers indicate a greater response among respondents in the episodic treatment group. Bold type indicates significance at the .05 level. All tests are one-tailed tests where the alternative hypothesis is $\bar{x}_{enisodic} > \bar{x}_{thematic}$. "Composite" refers to the full summated rating scale.

A second possible explanation for the null effects is that both the episodic frames and the thematic frames increased moral conviction, and the magnitude of such effects was roughly equal. However, because our experiments lacked a true control condition where no information was given (for a thorough discussion of the topic, see Boudreau & MacKenzie, 2014), we cannot compare levels of moral conviction in a "true" baseline group to levels of moral conviction in respondents exposed to the thematic and episodic conditions. As such, we are unable to tell whether the frames produced no effects or effects of roughly equal magnitudes. Future work in this area ought to consider pretest measures of the dependent variables or adding a true control condition so researchers can reach more nuanced conclusions.

Given our failures to replicate Study 2 in the higher-powered Lucid sample and our null findings in the additional studies on health care and immigration, a third possible explanation is that our positive findings were flukes. Thus, the significant effects should be interpreted cautiously.

Finally, though the results on H1 and H2 are fairly strong, the present research also raises some questions about moral conviction and emotion as they relate to other measures of attitude intensity. In short, our results regarding treatment effects on moral conviction, the three indicators of attitude intensity, and emotion suggest that, because all concepts are tied fairly tightly together, it will be difficult, even with a welldesigned experiment, to obtain a clean causal estimate on how moral conviction (or any other measure of attitude intensity) affects a certain type of behavior. Therefore, the field may have to rely on observational studies (e.g., Ryan, 2017; Skitka et al., 2005) to develop a better understanding of how changes in moral conviction affect subsequent behavior.

The results of the present research also suggest a second question. Though our data suggest that contextual factors (e.g., issue salience) matter with respect to frames and moral conviction, we do not address individual-level factors, other than emotional response, which might contribute to one's sense of moral conviction on a given issue. Preliminary analyses of our data suggest that people who agree with the policy in question report greater levels of moral conviction, but treatment effects do not differ significantly between those who agree and those who disagree (see supplemental material for more detail). We are hesitant to draw firm conclusions, however, because all measurements were taken posttreatment. Again, we urge future researchers to use more sensitive designs, such as designs with pretest measures of the dependent variables, in order to increase statistical power and search for subgroups that are more responsive to treatment effects. Future research also might consider the role of empathy in framing, persuasion, and moral conviction (Simas et al., 2020).

To close, morally convicted attitudes play an important role in public opinion and political psychology (Clifford & Jerit, 2013; Clifford et al., 2015; Fiske & Tetlock, 1997; Jayawickreme & DiStefano, 2012; Ryan, 2014, 2017; Skitka & Morgan, 2014), but there remain open questions about the development of moral conviction, as well as how it is communicated. The present research demonstrates that moral conviction can be communicated in the popular press without the aid of shocking or disturbing images. Further, we show that emotions likely play an important role in how episodic frames cause attitudes to become morally convicted. Finally, our results suggest that political context plays a role in whether or not a particular frame causes one to feel some sense of moral conviction. In short, while it may be difficult for the popular press to convey a sense of moral conviction to readers, when the context is right, causing readers to feel emotion when processing information may be key to connecting attitudes with one's fundamental sense of right and wrong.

Notes

- 1. Because our frames were not designed to elicit specific emotions, such as disgust or anger (see the experimental designs in Clifford, 2019, for example), our emphasis on negative emotion is theoretically appropriate. Additionally, we measure respondents' emotional reactions using a form of the Positive and Negative Affect Schedule (PANAS), which was originally developed to measure generalized positive and negative affect (Watson et al., 1988). Due to its design, responses to questions about discrete negative emotions are often strongly correlated. As a result, the instrument does a poor job distinguishing between discrete emotions that have a similar affective direction (Watson et al., 1988). In short, PANAS is not designed to measure multiple discrete emotions (Rhodes-Purdy et al., 2020), and it is an imperfect tool for such a task (Harmon-Jones et al., 2016).
- 2. Research shows MTurk samples to be more representative than in-person convenience samples but less representative than Internet-based panels or national probability samples (Berinsky et al., 2012). However, research also shows that experimental research done on MTurk and nationally representative samples reaches similar conclusions. More specifically, Mullinix et al. (2015) show that treatment effects obtained with MTurk samples are similar to effects found using nationally representative population-based samples.
- 3. Coppock and McClellan (2019) replicate the analyses in Berinsky et al. (2012) using samples from the Lucid Fulcrum Exchange. They find that experimental results obtained with Lucid samples, generally, track nicely with U.S. national benchmarks. The authors further conclude that subjects recruited using Lucid's platform constitute a sample suitable for evaluating social science theories.
- 4. That is, if moral conviction is the dependent variable, then attitude extremity, attitude importance, and personal relevance are included in the model as covariates.
- 5. For all experiments, histograms showing the distribution of moral conviction by episodic and thematic frames are included in the supplemental material.
- 6. All reported results throughout the article (except those in Table 4) are based on two-tailed tests. Recall that all measures of attitude intensity, including moral conviction, as well as all emotion measures, are scaled to range from 0 to 1.
- 7. In line with previous research that suggests different discrete emotions have different effects on political behavior (Brader & Marcus, 2013) and the development of moral conviction (Clifford, 2019; Wisneski & Skitka, 2017), we ran separate analyses to test whether the different discrete emotions mediate treatment effects. Our analyses of the MTurk data suggest that none of the discrete emotions act as significant mediators, though all have significant direct effects on moral conviction. Analyses of the Lucid data show that only sadness has a significant mediating effect on moral conviction, and again, all discrete emotions have significant direct effects. Full details can be found in the supplemental material.
- 8. Participants in the MTurk sample were also randomly assigned to read either the policy concerning transgender bathroom rights or one of the two other policies—health care or immigration—which are described in the "Additional Studies," section.
- 9. For the MTurk data, mediation analyses of the separate discrete emotions show that none act as significant mediators, and only disgust exerts an independent direct effect on moral conviction. There are no significant results in the Lucid data. Full results can be found in the supplemental material. Following the recommendations of Shrout and Bolger (2002), we include mediation analyses even when there are no significant treatment effects because there is a plausible theoretical relationship between the treatment conditions, the mediators, and

- the dependent variables. This goes against recommendations of earlier work on mediation models (e.g., R. M. Baron & Kenny, 1986).
- 10. Mediation analyses on the separate discrete emotions also show no significant results.

Acknowledgments

Versions of this article were presented at the 2017 Annual Meeting of the Southern Political Science Association and the 2017 Annual Meeting of the Midwestern Political Science Association. The authors would like to thank Scott Clifford, Kristin Garrett, Eric Groenendyk, Nathan Kalmoe, Biko Koenig, Jennifer Meyer, Timothy Ryan, Stephen Utych, Wei-Ting Yen, and the anonymous reviewers for their helpful comments.

Data Availability Statement

Replication data and code are deposited in the Harvard Dataverse and available at https://doi.org/10.7910/DVN/LEVVHS.

Disclosure Statement

No potential conflict of interest was reported by the authors.

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