THE MORALIZATION OF POLITICS: CAUSES, CONSEQUENCES, AND MEASUREMENT OF MORAL CONVICTION

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ABSTRACT

(Under the direction of Thomas M. Carsey)

Conflicts in politics often stem from different perspectives about what is right and wrong, and recent work in moral psychology sheds light on this phenomenon. People develop unique moral convictions, or perceptions that something is a moral concern, and these convictions trigger powerful psychological processes that influence political attitudes and actions in a myriad of ways. Despite all we know about the political effects of moral conviction, important questions remain to be answered about where it comes from, how it affects partisan division, and how we measure it. Each empirical chapter of this dissertation sheds light on one of these puzzles.

The first empirical chapter, “The Moral Roots of Partisan Division,” points to moral conviction as a driving force of the partisan bias and hostility that increasingly characterize segments of the American electorate. Using data from a nationally representative sample, I show that partisans who tend to moralize politics are more likely to express polarized evaluations of in-party and out-party leaders, even after I control for partisanship and ideology.

The second empirical chapter, “The Physiology of Moral Conviction,” supports the previously untested assumption that moral conviction measures actually assess a distinctly moral way of thinking. Using a lab experiment designed to capture self-reported moral conviction and physiological arousal, I find that arousal positively predicts conviction about political objects, but not other dimensions of attitude strength.

The third empirical chapter, “Emotion and the Moralization of Politics,” identifies affect as a key factor that encourages attitude moralization. Using a survey experiment embedded
in a lab study, I show that prompts designed to heighten emotion evoke stronger moral conviction and physiological arousal about the issue of human trafficking than prompts designed to trigger deliberation or appeal to moral foundations.

Together, these results help explain where moralized attitudes come from and why they are so deep-seated and divisive. They also raise important normative questions about strategies to moralize and demoralize politics. Finally, they invite further research about how moral convictions develop and persist in close social relationships.
Soli Deo Gloria
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1 MORALITY AND POLITICS

1.1 Introduction

Conflicts in politics often boil down to divergent perspectives about what is right and wrong. Citizens hold opposing opinions about which party, which candidate, and which issue positions represent the moral choice. Lawmakers fight over policies that would define vastly different standards of right and wrong for the nation. Parties and candidates pursue competing moral visions of the good society. Interest groups and social movements coalesce around conflicting positions on issues they perceive to be matters of right and wrong. Ethnic and religious groups clash over starkly different sacred values.

Moreover, people’s distinct perceptions of right and wrong often influence divisive political behaviors that challenge what we might expect under a rational choice or utilitarian framework. Issue activists refuse to endorse incremental policy gains that would move them closer toward their stated goals because they believe that settling for anything less than total victory would contradict their sacred values (Bazerman, Moore and Gillespie 1999; Tetlock and Oppenheimer 2008). Citizens express an increasingly strong preference for their political leaders to pursue compromise, yet they also vehemently oppose politicians who compromise on specific issues they view as moral concerns (Newport 2013; Ryan 2016). People willingly accept financial incentives to support policy concessions, unless they perceive that the policies are linked to their sacred values. In this case, monetary payoffs trigger increased anger and violent opposition to concessions (Atran, Axelrod and Davis 2007; Atran and Ginges 2015; Dehghani et al. 2010; Ginges et al. 2007).

Studies in moral and political psychology have begun to report that such scenarios occur because people’s perceptions of morality, or their moral convictions, trigger distinct
psychological responses. People experience moral convictions as objectively true, universally applicable, inherently motivating, and immune to social influence in ways that are fundamentally different from how they experience personal preferences, group norms, and religious values (Skitka 2010, 2014). Morally convicted attitudes also trigger more negative emotions, biased perceptions, punitive actions, unwavering opinions, and social distance than other strong but nonmoral attitudes (Skitka, Bauman and Sargis 2005; Skitka, Washburn and Carsel 2015). In addition, research continues to uncover important political effects of moral conviction, which range from issue attitudes to voting behavior, distrust of political authorities to acceptance of political violence, and increased social activism to decreased political compromise (Ryan 2014, 2016; Skitka and Morgan 2009, 2014).

The growing list of the distinct political effects of moral conviction raises important questions about why this construct leads to such passionate, divisive, and often puzzling political outcomes. Many of these questions stem from deeper puzzles about what moral conviction is and where it comes from. While extant studies operate on the assumption that moral conviction is a uniquely moral attitude dimension, we have yet to determine whether it actually results from a distinctly moral way of thinking. Likewise, we have yet to discover why moral convictions develop about some issues but not others. Elucidating the nature and antecedents of moral conviction will allow us to better explain the wide array of political attitudes and actions that are shaped by people’s sense of morality. In this dissertation, therefore, I tackle questions about what the moral conviction construct is, where moralized attitudes come from, and how moral lines divide the American electorate.

1.2 Overview of the Dissertation

This dissertation is organized into three empirical chapters, which are connected by the common theme of moral conviction but stand alone in their theoretical and methodological contributions. In chapter 2, I demonstrate how moral conviction drives affective polariza-

stion, stoking greater antipathy for partisan opponents and fondness for partisan allies. In
chapter 3, I report findings from a novel physiological response study, which indicate that moral conviction is distinctly tied to moral thinking and physiological arousal. In chapter 4, I present experimental evidence that emotion plays an important role in encouraging the emergence of moral conviction. In chapter 5, I discuss ideas for future research, which stem from the findings presented in previous chapters.

The main contribution of this dissertation is to shed light on the nature and antecedents of moral conviction. The results suggest that moral conviction stems from a uniquely moral way of thinking, which is driven by rules of right and wrong, rather than calculations of costs and benefits. The findings also indicate that moralized attitudes are tightly linked to automatic psychophysiological responses of affect and arousal. Finally, the results suggest that moral conviction is heightened by appeals to emotion and moderated by instructions to engage in effortful deliberation. These insights about what moral conviction is and where it comes from help explain why moralized attitudes are so deeply held, so inherently motivating, so closely connected to emotions, and so impervious to logical arguments, financial incentives, and tradeoffs. By shedding light on the cognitive and affective roots of moral conviction, therefore, this dissertation increases our understanding of the many political attitudes and actions that are influenced by moral conviction.

The results presented in this dissertation also point to the difficult dilemma of what role moral conviction should play in a democratic society. Other studies have already uncovered multiple political costs and benefits of a moral way of thinking (e.g., Ryan 2014, 2016; Skitka and Morgan 2009, 2014). This research builds on those findings by demonstrating that moralized attitudes are more deep-seated, instinctive, and resistant to logical attempts at persuasion than previous work has shown, which raises key normative questions about attempts to moralize and demoralize politics.
1.3 Terminology

The wide array of terms used to specify different facets of morality in the moral psychology literature can be daunting. In this section, therefore, I briefly define the terms that are pertinent to my research. Table 1.1 summarizes these definitions.

In this dissertation, I concentrate on aspects of morality related to moral conviction, which is defined as a person’s perception that an attitude is grounded in his or her core beliefs about right and wrong (Skitka, Bauman and Sargis 2005; Skitka and Morgan 2014). Moral convictions that form along party lines are termed partisan moral convictions. They are simply people’s perceptions that the political parties and their affiliates are matters of right and wrong. Moralized attitudes, morally convicted attitudes, and moral mandates are all different terms for attitudes that are held with strong moral conviction (Ryan 2014; Skitka 2014). These attitudes share similar defining characteristics as sacred values, which are values that are considered to be absolute, transcendent, and protected from trade-offs (Tetlock et al. 2000; Tetlock 2003). Propensity to moralize refers to a person’s overall tendency to view political objects in moral terms. This indicator is measured by respondents’ average moral conviction score across several political issues (Wisneski, Skitka and Morgan 2011). Attitude moralization is the process by which a morally neutral attitude object comes to be held with moral conviction (Brandt, Wisneski and Skitka 2015; Rozin 1999).

Finally, I argue in this dissertation that moral conviction stems from moral cognition, which is the general information processing performed by the human nervous system that leads to perceptions of morality (Greene 2008; Greene et al. 2004).

Moral convictions are distinct from other constructs discussed in the moral psychology literature. While convictions are stable and internalized perspectives that people hold, moral judgments are short-term reactions about the rightness or wrongness of a given situation, actor, or behavior (Bauman and Skitka 2009a; Skitka 2014). In contrast, moral foundations are innate psychological mechanisms or mental processing systems that make
certain moral arguments instinctively more or less appealing to people (Graham, Haidt and Nosek 2009; Haidt and Graham 2007; Haidt and Joseph 2004). Moral foundations give rise to moral intuitions, which are the sudden appearances in consciousness of affective moral evaluations without any conscious awareness of having weighed evidence or inferred a conclusion (Haidt 2001; Haidt and Bjorklund 2008).

Table 1.1: Definitions of Key Moral Terms

<table>
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<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td>Moral Conviction</td>
<td>Perception that an attitude is grounded in one’s core moral beliefs or fundamental sense of right and wrong</td>
</tr>
<tr>
<td>Partisan Moral Convictions</td>
<td>Perceptions that political parties, party leaders, or party members are matters of right and wrong</td>
</tr>
<tr>
<td>Moralized Attitudes</td>
<td>Attitudes that are held with strong moral conviction</td>
</tr>
<tr>
<td>Sacred Values</td>
<td>Values that preclude comparisons or trade-offs because they are considered to be absolute or transcendent</td>
</tr>
<tr>
<td>Propensity to Moralize</td>
<td>General tendency to hold moral convictions across a range of political issues</td>
</tr>
<tr>
<td>Attitude Moralization</td>
<td>The process by which moral convictions develop and strengthen</td>
</tr>
<tr>
<td>Moral Cognition</td>
<td>General information processing performed by the nervous system that leads to perceptions of morality</td>
</tr>
<tr>
<td>Moral Judgments</td>
<td>Short-term, single-shot reactions about the rightness or wrongness of a given behavior, actor, or situation</td>
</tr>
<tr>
<td>Moral Foundations</td>
<td>Instinctive psychological systems that give rise to moral intuitions</td>
</tr>
<tr>
<td>Moral Intuitions</td>
<td>Rapid, automatic, and unconscious mental processes that result in affective moral evaluations</td>
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2 THE MORAL ROOTS OF PARTISAN DIVISION

Abstract: Bias, disdain, and hostility toward partisan opponents have increased substantially over the last few decades in the American electorate. While studies have suggested different factors that underlie this affective polarization, the culprit usually relates to partisan strength. I argue in this paper, however, that partisan moral convictions heighten affective polarization beyond the effects of partisanship. Individuals are more likely to show aversion to partisan opponents and affinity for partisan allies, irrespective of partisan strength, if they base their opinions on their beliefs about right and wrong. Testing this theory on data from a nationally representative sample, I find that partisans who tend to moralize politics are more likely to exhibit polarized feelings toward and evaluations of in-party and out-party leaders. These results shed light on the moral lines that divide the American public and raise important normative questions about moral conviction and electoral politics.

2.1 Introduction

Scholars of American politics have long debated the nature and extent of party polarization in the American electorate, but the majority tend to agree that the mass public has become more divided along partisan and ideological lines (see Hetherington 2009; Layman, Carsey and Horowitz 2006). In addition to this partisan-ideological polarization, Republicans and Democrats have come to increasingly dislike and even abhor each other, a distinct trend labeled affective polarization (Iyengar, Sood and Lelkes 2012; Iyengar and Westwood 2015). Recent studies show that bias, anger, and disdain toward partisan opponents
have escalated substantially over the last few decades among average citizens, leading to more hostile rhetoric, political activism, discrimination against partisan opponents, and favoritism toward copartisans (Haidt and Hetherington 2012; Iyengar, Sood and Lelkes 2012; Iyengar and Westwood 2015; Lelkes and Westwood 2016; Mason 2013, 2015).

Evidence clearly suggests that affective polarization is on the rise, and studies show that individuals who are strong or sorted partisans are more likely to hold negative views of the opposite party (Iyengar and Westwood 2015; Mason 2015; Pew 2014). Even after modeling these predictors, however, substantial variance remains in the level of partisan bias and hostility citizens display. This raises the specific question of why some Americans hold more divided views than others, despite expressing the same strength of partisanship. It also highlights the broader question of what drives affective polarization.

While previous work has focused on factors like partisan strength, partisan-ideological sorting, negative political campaigns, or partisan media as the root cause of affective polarization (e.g., Iyengar, Sood and Lelkes 2012; Mason 2015), I theorize in this paper that the moralization of politics further heightens affective polarization. Recent work in moral psychology indicates that moral conviction is a distinctive dimension of attitude strength, which might recruit the type of psychological processes that would induce polarizing judgments (Skitka 2010, 2014; Skitka, Bauman and Sargis 2005; Skitka and Morgan 2014). Building on this research, I theorize that opinions based on partisan moral convictions—perceptions that the parties and their affiliates are moral concerns—are more likely to engender polarized views than opinions based on personal preferences or group norms. As a result, individuals across the range of partisan strength are more likely to show antipathy toward the out-party and favoritism toward the in-party if they base their partisan evaluations on their deeply held beliefs about right and wrong.

Based on this theory, I hypothesize that people who tend to moralize politics will be more likely to attribute positive affect, higher approval ratings, and less blame to in-party
leaders and negative affect, lower approval ratings, and more blame to out-party leaders than individuals who do not moralize politics. To test these predictions, I utilize data from the 2012 American National Election Studies (ANES) Evaluations of Government and Society Study (EGSS), and I run models comparing how the propensity to moralize different political issues influences the feelings, job approval, and attributions of blame that Democratic and Republican respondents express about party leaders.

The results of this study support my expectations. Higher propensity to moralize scores predict more polarized affect, job approval, and blame attribution toward copartisans and opposing partisans. These results suggest that citizens are now divided along moral lines as well as partisan lines. When I control for partisan strength, Democrats and Republicans who rarely moralize politics barely differ in their evaluations of in-party and out-party leaders, but partisans who habitually moralize politics are clearly divided in their assessments. These findings are important because they help us understand how moral conviction contributes to the partisan bias and hostility we see in America today, and they raise key normative questions about the link between moral conviction and electoral politics.

2.2 Affective Polarization

Traditionally, party polarization has been defined as partisan-ideological or policy-based divisions between the Democratic and Republican parties. Scholars have assessed polarization in the mass public based on the extent to which voters have sorted into the correct party and ideology, or by how much consistency they show in aligning their issue positions and their party identification across a range of issues (Abramowitz 2006, 2010; Abramowitz and Saunders 1998, 2005, 2008; Abramowitz and Stone 2006; Brewer 2005; Fiorina 2013; Fiorina and Abrams 2008; Fiorina, Abrams and Pope 2005, 2008; Fiorina and Levendusky 2006; Hetherington 2001, 2009; Hill and Tausanovitch 2015; Jacobson 2005, 2007; Layman and Carsey 2002a,b; Levendusky 2009). This partisan-ideological or policy-based definition of polarization has led to much of the debate over the existence and
extent of polarization in the American electorate.

More recently, however, some political scientists have specified affective polarization as a separate dimension of partisan division in the mass public. Affective polarization is defined as “the tendency of people identifying as Republicans or Democrats to view opposing partisans negatively and copartisans positively” (Iyengar and Westwood 2015, 691). Whereas polarization typically implies distance on an ideological or policy-preference scale, affective polarization refers to the growing social distance between the parties.

While scholars might debate the extent of partisan-ideological or policy-based polarization in the mass public, recent studies show that bias, disdain, and hostility toward partisan opponents have increased substantially over the last several decades among average citizens (Haidt and Hetherington 2012; Iyengar, Sood and Lelkes 2012; Iyengar and Westwood 2015; Mason 2013, 2015). This affective polarization predicts greater political activism, more hostile rhetoric, avoidance of partisan opponents, and a desire for preferential treatment of one’s own party (Lelkes and Westwood 2016; Mason 2015). Perhaps most concerning, affective polarization now permeates relationship dynamics and everyday situations. Partisans are increasingly uncomfortable with their children marrying members of the opposite party, they attribute negative attributes to average party supporters, and they are willing to discriminate against opposing partisans when they make decisions in non-political scenarios (Iyengar, Sood and Lelkes 2012; Pew 2014; Phillips and Carsey 2013). Iyengar and Westwood (2015) even present evidence that partisan hostility in the American electorate now exceeds racial animus.

While studies show that affective polarization is on the rise, they also indicate that not all Americans display such partisan hostility. For example, weak partisans who are politically unengaged and uninformed are less likely to express negative views of the opposite party than strong partisans who are politically engaged and knowledgeable (Iyengar, Sood and Lelkes 2012; Mason 2015; Pew 2014). In order to explain the rise as well as the
variance in partisan hostility, some studies suggest that partisan sorting has driven social polarization, encouraging stronger political identities and more divided evaluations (Fiorina 2013; Mason 2013, 2015). Others indicate that the mere act of identifying with a political party triggers negative evaluations of the opposite party, which are then reinforced by exposure to negative political campaigns and partisan media coverage (Iyengar, Sood and Lelkes 2012; Iyengar and Westwood 2015; Levendusky 2013). These theories generally ascribe the roots of affective polarization to increasing partisan alignment or strength. Even when partisanship is modeled, however, substantial variance remains to be explained in the level of partisan bias and hostility citizens display.

To complement these theories, I posit that another factor besides partisan extremity influences affective polarization: the moralization of politics. Some citizens develop moral convictions along party lines, meaning they come to view their party and its affiliates as right and good and the other side as wrong and immoral. Individuals who base their opinions about the political parties, party leaders, and party members on their fundamental beliefs about right and wrong are more likely to show hostility toward opposing partisans and favoritism toward copartisans than individuals who base their opinions on nonmoral concerns. While stronger partisans might hold more polarized attitudes than weaker partisans, I expect citizens to display more affective polarization, irrespective of partisan strength, if their partisan evaluations stem from moral convictions rather than personal preferences or normative conventions.

2.3 The Moralization of Politics

In recent years, studies have shown that individuals develop political opinions based on moral convictions, not just personal preferences, group norms, religious beliefs, or personal values (Ryan 2014; Skitka, Bauman and Sargs 2005; Skitka, Morgan and Wisneski 2015). Moral conviction is defined as a person’s perception that an attitude is grounded in his or her “core beliefs about fundamental right and wrong” (Skitka and Morgan 2014, 96).
It is a distinct dimension of attitude strength that is different from other dimensions like extremity, importance, centrality, and personal relevance (Ryan 2014; Skitka, Bauman and Sargis 2005). The domain theory of attitudes suggests that morally convicted attitudes, or attitudes held with strong moral conviction, are unique in that people experience them as objectively true, universally applicable, inherently motivating, strongly tied to emotions, and uniquely independent of external authority and peer influence (Skitka 2010, 2014).1

When it comes to partisan evaluations, some people base their opinions of the political parties and party adherents on personal preferences or normative conventions, while others base their opinions on core moral beliefs. These latter individuals develop what I refer to as partisan moral convictions, or the perceptions that their attitudes about the political parties, party leaders, and party members are connected to their fundamental sense of right and wrong. They come to view their party and its supporters as fundamentally good and the other party and its adherents as fundamentally bad. Because moralized attitudes trigger punitive and unyielding responses, people who base their political opinions on partisan moral convictions are more likely to display affectively polarized evaluations. I expound upon this point further below.

In order for people to develop partisan moral convictions, the political parties and their affiliates have to get linked to people’s underlying mental systems for processing morality.2 This means the parties have to be presented in such a way that they trigger moral emotions and evaluations, which signal to individuals that they should be considered objects

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1 Morally convicted attitudes are also frequently referred to as moralized attitudes or moral mandates.
2 Studies indicate that moral appraisals emerge from complex interactions between multiple brain regions and neural networks (e.g., Greene et al. 2001, 2004; Hutcherson et al. 2015; Kaplan et al. 2016; Moll, Eslinger and de Oliveira-Souza 2001; Moll et al. 2002). Humans appear hard-wired with these mental programs that process rules of right and wrong, police adherence to social rules, regulate relationships, and guide our learning about morality (DeScioli and Kurzban 2009, 2013; Rai and Fiske 2011). By just a few months old, infants can already pick up on forms of moral and immoral behavior, and they seem to display marked distaste for wrongdoers (Bloom 2013; Hamlin 2013; Hamlin, Wynn and Bloom 2010; Hamlin et al. 2011). Also, the mental systems that underlie perceptions of morality appear to be similar to the mental programs that process human language (Berns et al. 2012; Mikhail 2007, 2011). This line of work indicates that humans are born equipped with the necessary mental systems to develop moral convictions, and then various socializing factors fill in the content of what objects get encoded as moral concerns.
of moral concern. There are multiple mechanisms by which this process of moralization might occur in the American political system. First, people often hear the political parties being described by family, friends, and the media in moral terms of right and wrong, good and bad. Over time, these conversations might build up a mental connection between an attitude object like a party or a candidate and a sense that the object is moral or immoral. Second, political parties and their leaders provide cues about their moral stances through the positions they take on various issues, which individuals may or may not perceive as moral concerns (Ryan 2014; Wright, Cullum and Schwab 2008). If a party leader adopts strong and visible positions on issues that people view as matters of right and wrong, the leader might get linked by association to morality in people’s minds. Third, party labels send moral signals about leaders’ character traits (Clifford 2014). These cues about whether politicians are honest or dishonest, fair or discriminatory, patriotic or unpatriotic might influence people to develop the perception that the politicians are moral or immoral. Fourth, principles from social identity theory suggest that partisans’ desire for a positive self-concept might drive them to evaluate in-party members as moral and out-party members as immoral (Brambilla et al. 2012, 2013; Ellemers et al. 2008; Leach, Ellemers and Barreto 2007; Leach, Bilali and Pagliaro 2014; Tajfel and Turner 1986). In this case, party labels would provide enough information by themselves for citizens to classify party affiliates as objects of moral concern.3

While the current political environment is ripe for individuals to develop partisan moral convictions, some people are more likely to base their partisan opinions on their sense of right and wrong than others. Studies show substantial variance in people’s propensity to moralize different political issues, causes, and candidates (Ryan 2014; Skitka and Bauman 2008; Skitka, Morgan and Wisneski 2015; Wright, Cullum and Schwab 2008). Individuals

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3The structure of our two party system likely encourages people to further celebrate one side as moral and to demonize the other as immoral. Heit and Nicholson (2010) show that people tend to view Democrats as exact opposites of Republicans, which might facilitate the absolute stance that one party and its leaders are morally right and the other morally wrong.
who express a greater tendency to moralize politics, or to habitually think about politics in terms of right and wrong, should more readily associate the political parties, party leaders, and party members with their core moral beliefs and convictions. Consequently, they should be more likely to develop partisan moral convictions, which in turn influence them to evaluate copartisans more positively and opposing partisans more negatively.

2.4 Partisan Moral Convictions and Affective Polarization

People who develop morally convicted attitudes about the political parties and their affiliates are more likely to display the antipathy, anger, bias, and activism that characterize affective polarization. Moralized attitudes trigger more hostile opinions, negative emotions, and punitive actions than attitudes based on preferences or conventions alone (see Skitka and Morgan 2009, 2014).\(^4\) People who hold strong moral convictions want greater social and physical distance from, they show greater intolerance towards, and they show greater willingness to discriminate against those who hold conflicting views (Skitka, Bauman and Sargis 2005; Skitka et al. 2012; Wright, Cullum and Schwab 2008). Also, they are less likely to cooperate or compromise with the opposing side, which often leads to tension and defensiveness in group interactions (Ryan 2016; Skitka, Bauman and Sargis 2005). In addition, moral conviction motivates people to action, inspiring political engagement, social activism, and increased acceptance of violence (Ryan 2014; Skitka and Bauman 2008; van Zomeren, Postmes and Spears 2012; Zaal et al. 2011). Finally, moralized attitudes evoke particularly strong negative emotions like anger, disgust, and contempt (Mullen and Skitka 2006; Skitka 2014; Skitka and Wisneski 2011), and they encourage hostility toward political foes (Ryan 2014).

Not all of the consequences of moral conviction are negative. While people tend to dislike and distance themselves from individuals who hold a different moral perspective,

\(^4\)DeScioli and Kurzban (2013) and Rai and Fiske (2011) suggest that the mental processes that create a sense of right and wrong developed to facilitate social coordination by regulating relationships and punishing individuals who deviate from norms of cooperation. Consequently, moralized attitudes trigger more hostile and punitive responses.
they seem to like and be drawn toward individuals who hold similar moral beliefs (Leach, Ellemers and Barreto 2007; Skitka, Bauman and Sargis 2005; Wright, Cullum and Schwab 2008). As a result, at the same time that moral conviction causes people to adopt more hostile positions toward those on the wrong moral side, it also encourages them to adopt more favorable stances toward those on the right moral team.

Because morally convicted attitudes lead individuals to respond in more polarized ways than otherwise strong but nonmoral attitudes, people who base their partisan evaluations on their beliefs about right and wrong are more likely to display positive feelings toward copartisans and negative feelings toward opposing partisans than people who base their partisan evaluations on nonmoral values. Much more is at stake when you think one party is good and the other is evil than when you think one party is preferable to the other. More hostility is provoked when a party violates what you hold to be sacred than when a party violates what you consider to be important. For this reason, I expect that moral convictions will heighten affective polarization, even after controlling for partisanship and ideology.

If this theory is accurate, it should help explain current indicators of affective polarization, such as the growing dislike of out-party leaders. Studies show that anger at out-party presidential candidates has been increasing over the past several decades (Mason 2013, 2015), and partisans have been deeply divided over presidential job performance since George W. Bush took office in 2000 (Pew 2014). I expect that partisan moral convictions help drive this phenomenon, and two points from my theory suggest how. First, individuals who tend to routinely moralize politics are more likely to hold morally convicted attitudes about different partisan objects, including party leaders. Second, these partisan moral convictions should engender polarized feelings and evaluations. This leads me to hypothesize:

\[ H1a: \text{Partisans who display a higher propensity to moralize are more likely to express negative affect toward out-party leaders than partisans who display a lower propensity to moralize.} \]
H1b: Partisans who display a higher propensity to moralize are more likely to express positive affect toward in-party leaders than partisans who display a lower propensity to moralize.

H2a: Partisans who display a higher propensity to moralize are more likely to express lower job approval of out-party leaders than partisans who display a lower propensity to moralize.

H2b: Partisans who display a higher propensity to moralize are more likely to express higher job approval of in-party leaders than partisans who display a lower propensity to moralize.

Recent studies on affective polarization also show that people are more likely to give their own side the benefit of the doubt, while they assume the worst about the opposition. They attribute positive stereotypes to the in-party and negative stereotypes to the out-party, and they are more suspicious of politicians from opposing parties (Iyengar, Sood and Lelkes 2012; Munro, Weih and Tsai 2010). Once again, I expect that people who tend to habitually think about politics in moral terms are more likely to develop partisan moral convictions, and individuals who base their political opinions on such convictions are more likely to display a polarized pattern of letting their political allies off the hook and faulting their political opponents when things go wrong. As a result, I predict:

H3a: Partisans who display a higher propensity to moralize are more likely to attribute blame to out-party leaders than partisans who display a lower propensity to moralize.

H3b: Partisans who display a higher propensity to moralize are less likely to attribute blame to in-party leaders than partisans who display a lower propensity to moralize.
2.5 Data and Methods

To test these expectations, I utilize data from the 2012 American National Election Studies (ANES) Evaluations of Government and Society Study (EGSS). To operationalize the key explanatory variable *propensity to moralize*, I use the EGSS’s Moralization of Politics (MOP) scale, which is a battery of questions that evaluate respondents’ level of moral conviction on different political issues. One of the challenges of measuring moral conviction in political contexts is that a person might moralize one political issue, such as a union worker moralizing collective bargaining rights, but not politics in general. The MOP scale is designed to navigate this obstacle by tapping into respondents’ general tendency to think about different political objects in moral terms.

To start off, respondents are shown a list of ten issues: the budget deficit, the war in Afghanistan, education, health care, illegal immigration, the economic recession, abortion, same-sex marriage, the environment, and unemployment. Then, they are asked to report which issue they think is the most important one facing the country and which issue they think is the least important. Next, they are asked to answer how much their opinion on an issue is based on their “moral values” in reference to three issues from the original list of ten: the issue they identified as most important, the issue they identified as least important, and one other randomly selected issue. For each of these issues, respondents answer on a 5-point scale ranging from “not at all” to “a great deal.” I take the average of these answers to get an overall propensity to moralize score for each respondent.\footnote{See Morgan, Skitka and Wisneski (2010) and Wisneski, Skitka and Morgan (2011) for more information on the validity of this approach.}

This score provides a basic measure of respondents’ average tendency to link their political opinions to their core moral beliefs and convictions, which gives a rough indication of their proclivity to think about politics in moral terms. For this reason, I expect that the MOP scale captures a habitual orientation to moralize different political objects. If this is true, individuals high on the scale should be more likely to hold partisan moral convictions.
They should also be more likely to display the polarized pattern of party leader evaluations that my theory predicts.

I operationalize the dependent variable *affect toward party leaders* using feeling thermometer questions that the EGSS asks about several Democratic and Republican candidates in the 2012 presidential election.\(^6\) The candidates include Barack Obama, Mitt Romney, and Newt Gingrich.\(^7\) A rating of 0 reflects a very unfavorable feeling toward the political candidate, a rating of 100 reflects a very favorable feeling, and a rating of 50 reflects a neutral feeling.

To operationalize the dependent variable *job approval of party leaders*, I use an EGSS question asking respondents to what extent they “approve, disapprove, or neither approve nor disapprove of the way Barack Obama is handling his job as president.” Scores range from “disapprove extremely strongly” to “approve extremely strongly” on a 7-point scale. Since this question is only asked about President Obama, I can only assess out-party disapproval for Republican respondents and in-party approval for Democratic respondents.

I operationalize the dependent variable *blame attributed to party leaders* using a series of EGSS questions asking respondents how much different political leaders are to “blame for the poor economic conditions of the past few years.” Scores range from “not at all” to “a great deal” on a 5-point scale. This question is asked in reference to President Obama, Democrats in Congress, President Bush, and Republicans in Congress. I rely on responses to the former two objects to represent blame directed at Democratic leaders and responses to the latter two objects to represent blame directed at Republican leaders.

To assess affect toward, job approval of, and blame attributed to in-party and out-party leaders, I include a dichotomous variable for party identification. Republicans and Republican leaners are coded 1, and Democrats and Democratic leaners are coded 0. Independents

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\(^6\) Full question wordings for this and all other variables are included in the appendix for this chapter.

\(^7\) Both Romney and Gingrich were included because the 2012 GOP presidential primary was undecided at the time the survey was conducted.
and “other” party identifiers are excluded from the analyses. I interact the dichotomous variable for party identification with the propensity to moralize score. Table 2.1 presents an overview of the data for the key independent and dependent variables used in the analyses, broken down by Republican and Democratic respondents.

Table 2.1: Summary of Key Variables by Party Identification

<table>
<thead>
<tr>
<th>Variable</th>
<th>Republicans</th>
<th></th>
<th>Democrats</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Propensity to Moralize</td>
<td>2.94</td>
<td>1.13</td>
<td>2.88</td>
<td>1.16</td>
</tr>
<tr>
<td>Party Identification (7-pt scale)</td>
<td>5.91</td>
<td>0.85</td>
<td>2.02</td>
<td>0.86</td>
</tr>
<tr>
<td>Affect toward Obama</td>
<td>24.30</td>
<td>25.13</td>
<td>71.67</td>
<td>26.95</td>
</tr>
<tr>
<td>Affect toward Romney</td>
<td>52.70</td>
<td>22.14</td>
<td>33.52</td>
<td>22.95</td>
</tr>
<tr>
<td>Affect toward Gingrich</td>
<td>46.35</td>
<td>23.80</td>
<td>23.07</td>
<td>22.38</td>
</tr>
<tr>
<td>Job Approval for Obama</td>
<td>2.19</td>
<td>1.51</td>
<td>5.00</td>
<td>1.76</td>
</tr>
<tr>
<td>Blame on Obama</td>
<td>3.68</td>
<td>1.21</td>
<td>2.29</td>
<td>1.20</td>
</tr>
<tr>
<td>Blame on Bush</td>
<td>2.85</td>
<td>1.09</td>
<td>4.03</td>
<td>1.14</td>
</tr>
<tr>
<td>Blame on Democrats in Congress</td>
<td>3.87</td>
<td>1.03</td>
<td>2.97</td>
<td>1.08</td>
</tr>
<tr>
<td>Blame on Republicans in Congress</td>
<td>3.13</td>
<td>1.05</td>
<td>3.90</td>
<td>1.07</td>
</tr>
<tr>
<td>N</td>
<td>626</td>
<td></td>
<td>665</td>
<td></td>
</tr>
</tbody>
</table>

In addition, I include several control variables to account for other factors that might influence views toward in-party and out-party leaders. Regarding demographics, I include a dummy variable for race (white), a dummy variable for gender (female), and a categorical variable for income. To capture negative or positive views toward the candidates stemming from the Religious Right, I also include a dummy variable for evangelical religious affiliation (evangelical Protestant). Lastly, I control for political ideology (7-point scale) and party identification (7-point scale) in order to verify that moral conviction influences

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8Only 23 observations are dropped because of this decision.

9I run other models including a religious attendance variable (6-point scale) instead of the evangelical dummy. This variable is not significant in any of the models and results in lower R-squared values than models including the evangelical dummy. I also run models with additional controls like age, but leave these variables out of the final analyses when they are not significant and result in lower R-squared values.
affective polarization independent of partisan and ideological strength.

I utilize linear regression to test the marginal effect of propensity to moralize on both Republicans’ and Democrats’ feelings toward party leaders, their approval of President Obama’s job performance, and their attribution of blame to party leaders. I regress (weighted OLS) feeling thermometer ratings for the Democratic and Republican candidates, Obama’s job approval, and blame attributed to Democratic and Republican leaders on dichotomous party identification (Republican), propensity to moralize, the interaction term between dichotomous party identification and propensity to moralize, and the various control variables.\textsuperscript{10} Filling in either affect toward, job approval of, or blame attributed to party leaders as the dependent variable, I model the following equation:

\[
DV_i = \beta_0 + \beta_1 \text{Republican}_i + \beta_2 \text{Propensity to Moralize}_i + \beta_3 (\text{Republican}_i \times \text{Propensity to Moralize}_i) + \beta_4 \text{Controls}_i + \epsilon_i
\]

2.6 Results

To simplify the presentation of results and help clarify the interpretation of interaction terms, I only include figures in the body of this paper.\textsuperscript{11} In each figure, the x-axis shows the observed range of propensity to moralize, and the y-axis shows either affect toward party leaders, presidential job approval, or the level of blame attributed to party leaders. The thick dashed line represents the marginal effect of propensity to moralize on the dependent variable for Democratic respondents, and the thick solid line represents this effect for Republican respondents. The thin dashed and solid lines represent the 95% confidence intervals for these estimates. Also, I include a rug plot on the x-axis, which reflects the distribution of propensity to moralize scores. Since the scores are clumped together, they are jittered to better reflect the spread of the data.

\textsuperscript{10}The EGSS includes a poststratification weight designed to ensure data is representative of the national population. All analyses are weighted so that results generalize to the overall population.

\textsuperscript{11}A table of coefficient estimates for each model is included in the appendix for this chapter.
The results illustrated in Figure 2.1 support my first set of hypotheses that people who display a higher propensity to moralize are more likely to express negative affect toward leaders from the opposite party and positive affect toward leaders from their own party. This figure illustrates the estimated marginal effect of propensity to moralize on feeling thermometer ratings of President Obama among Democratic and Republican respondents, holding all other control variables constant at their means.\(^{12}\) The solid line shows that among Republicans, each one point increase in propensity to moralize leads, on average, to a -2.93 point decrease in how favorably people feel toward President Obama. This marginal effect represents almost a twelve point decrease in positive affect toward Obama over the total range of propensity to moralize, suggesting that Republicans with a higher propensity to moralize tend to show more dislike for an out-party leader. The dashed line illustrates that among Democrats, each one point increase in propensity to moralize leads, on average, to a 2.57 point increase in positive feeling toward President Obama. This marginal effect represents a ten point increase in positive affect toward Obama over the total range of propensity to moralize, indicating that Democratic moralizers tend to view an in-party leader more favorably.

As Figure 2.1 shows, the gap in how Democrats and Republicans feel toward President Obama grows larger as you move from left to right across the propensity to moralize scale. By the time you get to the right-hand side of the scale, the strongest partisan moralizers are more than 20 points apart in their feelings toward Obama. This suggests that affective polarization between partisans increases as propensity to moralize increases, even after controlling for partisan and ideological strength.

\(^{12}\) In this and every other figure, I show the relationship for Democrats and Republicans separately, while holding control variables constant at their means. The hypothetical respondent profile is for those who “lean Democratic” (PID = 3) or “lean Republican” (PID = 5).
Figure 2.1: Marginal Effect of Propensity to Moralize on Affect toward Obama

![Graph showing the marginal effect of propensity to moralize on affect toward Obama.]

Note: The thin dashed and solid lines represent 95% confidence intervals for these estimates. N = 1212. $R^2 = 0.52$.

Figure 2.2 illustrates the estimated marginal effect of propensity to moralize on affect toward Mitt Romney among Democrats and Republicans, again holding other control variables constant at their means. This figure looks different than the previous one for affect toward Obama and actually suggests that both Republican and Democratic moralizers show a greater tendency to dislike Romney than non-moralizers. Each one point increase in propensity to moralize leads, on average, to a -0.79 point decrease in positive affect toward Romney among Democrats and a -1.06 point decrease among Republicans. The results for the Gingrich model are similar.\footnote{Because the results for the Gingrich and Romney models are so similar, I only show figures for the Romney models in this chapter. Results for the Gingrich models are included in the appendix for this chapter.} Consequently, increases in propensity to moralize do not influence more divided feelings about Romney and Gingrich like they do about Obama.
This finding fails to support my first set of hypotheses and raises questions about my theory, until we stop and consider how much voters actually knew about Romney and Gingrich when the 2012 EGSS was administered. My theory predicts that individuals who base their political opinions on partisan moral convictions will be more likely to display heightened affective polarization. This means that some factor, such as close connections with a party, moralized media coverage, or prominent policy stances on morally mandated issues, has to trigger moralized attitudes about party leaders in order for citizens to exhibit the patterns of partisan bias I expect.

When EGSS data was collected in February of 2012, President Obama had already
been in office for four years, while neither Romney nor Gingrich had secured the Repub-
lickan presidential nomination. Consequently, Romney and Gingrich were less likely to be
perceived as clearly and authentically representing the Republican Party than Obama was
to be perceived as the figurehead of the Democratic Party. Also, when the EGSS was ad-
ministered, neither Romney nor Gingrich had received the same level of media scrutiny
as Obama, and neither Republican candidate had taken as well-publicized policy stances
as Obama. For this reason, average citizens, who display relatively low levels of political
knowledge, might not have picked up on enough signals to associate the Republican candi-
dates with their sense of morality the way they did President Obama. In contrast, individu-
als with higher levels of political knowledge should have possessed sufficient information
to develop partisan moral convictions about Romney and Gingrich. By extension, they
should be more likely to display the type of polarized affect that I predict based on their
propensity to moralize politics.

I can test this expectation by comparing the effect of propensity to moralize on high and
low knowledge respondents’ feelings toward the Republican leaders. The EGSS includes
four general knowledge items to assess respondents’ level of political knowledge. I sum
correct answers to these questions and divide respondents into categories of those who got
two questions or less correct, which represents low knowledge (coded 0), and those who
got three questions or more correct, which represents high knowledge (coded 1).\footnote{I count missing answers as “wrong.” To verify my results, however, I also run models where missing answers are simply counted as missing. Results from the “missing” models are nearly identical to results from the “wrong” models, including the same coefficient signs and levels of significance. In addition, I get similar results when I define low and high knowledge based on a different number of correct answers.}

Figure 2.3 shows the estimated marginal effect of propensity to moralize on feeling
thermometer ratings of Romney among high and low knowledge Democrats and Repub-
licans, holding all other control variables constant at their means. Plot A illustrates that
high knowledge respondents display the pattern of polarized affect my theory predicts. The
dashed line shows that each one point increase in propensity to moralize leads, on average,
to a -2.92 point decrease in how much Democrats like Romney, and the solid line shows that the same increase in propensity to moralize leads, on average, to a 0.75 point increase in how much Republicans like Romney. Among high knowledge individuals, the partisan gap in affect toward Romney grows as propensity to moralize increases.

Figure 2.3: Marginal Effect of Moralizing on Affect toward Romney by Knowledge

(a) High Political Knowledge

(b) Low Political Knowledge

Note: The thin dashed and solid lines represent 95% confidence intervals for these estimates. N = 627, R² = 0.26 for High Knowledge. N = 576, R² = 0.16 for Low Knowledge.

In contrast, Plot B shows that low knowledge Democrats and Republicans mix up the connection between their party identification, moral conviction, and affect toward Romney. Each one point increase in propensity to moralize actually leads, on average, to a 1.68 point increase in how much Democrats like Romney and a -2.72 point decrease in how much Republicans like Romney. The high and low knowledge Gingrich models display the same pattern of results.

These findings from the knowledge-based Republican candidate models provide tentative support for my first set of hypotheses. Partisans who display a high propensity to
moralize are more likely to express positive affect toward out-party leaders and negative affect toward in-party leaders, so long as they have the political knowledge necessary to recognize cues that help them develop moral convictions about the leaders. This result supports my theory that individuals who base their evaluations of political elites on partisan moral convictions are more likely to report polarized feelings about the elites.

Despite this general trend, propensity to moralize influences feelings about specific candidates in distinct ways. A comparison of Figure 2.1 to Plot A in Figure 2.3 shows that the marginal effect of propensity to moralize on polarized affect toward Obama is stronger than the marginal effect of propensity to moralize on polarized affect toward Romney among even high knowledge respondents. Partisan moralizers appear to hold stronger morally convicted attitudes about the president than about a less prominent political leader.

The results illustrated in Figure 2.4 support my second set of hypotheses that partisans who display a higher propensity to moralize are more likely to express lower job approval of out-party leaders and higher job approval of in-party leaders than partisans who display a lower propensity to moralize. This figure shows the estimated marginal effect of propensity to moralize on President Obama’s job approval among Democratic and Republican respondents, holding all other control variables constant at their means. The solid line shows that each one point increase in propensity to moralize leads, on average, to a -0.15 point decrease in how much Republicans approve of the job President Obama is doing in office. This negative marginal effect represents more than a half point decrease in presidential job approval over the total range of propensity to moralize. The dashed line illustrates that each one point increase in propensity to moralize leads, on average, to a 0.15 point

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15 Some might suggest that racial sentiments are driving the heightened levels of polarized affect toward President Obama, rather than partisan moral convictions. To address this alternative hypothesis, I run several models testing how propensity to moralize influences feeling thermometer ratings for blacks among blacks and non-blacks, and I find no difference in the effect of propensity to moralize on feeling thermometer ratings between the two groups. Moral conviction does not appear to influence divided racial evaluations the way it does divided political evaluations, casting strong doubt on the premise that moral conviction related to racial sentiments, rather than partisanship, drives polarized affect toward President Obama.
increase in how much Democrats approve of President Obama’s job performance. This positive marginal effect represents more than a half point increase in job approval across the propensity to moralize scale.

Figure 2.4: Marginal Effect of Propensity to Moralize on Job Approval for Obama

Note: The thin dashed and solid lines represent 95% confidence intervals for these estimates. N = 1212. R² = 0.50.

As Figure 2.4 shows, the gap in President Obama’s job approval between Democrats and Republicans grows wider as you move from left to right across the propensity to moralize scale. The strongest partisan moralizers are farther than one point apart in their assessment of Barack Obama’s job performance. This illustrates that individuals who habitually think about politics in terms of right and wrong are more divided in their evaluations of a prominent party leader, even after I control for partisanship and ideology.

Finally, the results depicted in Figure 2.5 provide mixed support for my third set of
hypotheses that partisans who display a higher propensity to moralize are more likely to blame out-party leaders and less likely to blame in-party leaders for problems the country is facing. In each plot in this figure, higher scores reflect greater blame, so I expect the slope of the line for in-party members to be negative, signifying less blame, and the slope of the line for out-party members to be positive, signifying more blame. While the direction of the lines for in-party and out-party members is switched relative to the previous figures, I still expect the gap to grow between partisans as propensity to moralize increases.

Plot A and Plot B in Figure 2.5 illustrate the estimated marginal effect of propensity to moralize on the amount of blame Democrats and Republicans place on President Obama and President George W. Bush for poor economic conditions, holding all other control variables constant at their means. In Plot A, the solid line shows that every one unit increase in propensity to moralize leads, on average, to a 0.09 point increase in the blame Republicans attribute to President Obama. The dashed line shows that the same increase in propensity to moralize causes, on average, a -0.08 point decrease in the blame Democrats direct at President Obama. These results support my third set of hypotheses that partisans who display a higher propensity to moralize are more likely to blame out-party leaders and excuse in-party leaders. As a result, the gap between partisans in the amount of blame they attribute to President Obama grows wider as their tendency to moralize politics goes up.

Plot B displays a similar result. Every one unit increase in propensity to moralize leads, on average, to a -0.02 point decrease in blame directed at President Bush among Republicans and a 0.07 point increase in blame placed on President Bush by Democrats. Again, the more partisans tend to moralize politics, the more divided they become in the amount of blame they attribute to a party leader.
Figure 2.5: Marginal Effect of Moralizing on Blame Attributed to Party Leaders

(a) Obama

(b) Bush

(c) Democrats in Congress

(d) Republicans in Congress

Note: The thin dashed and solid lines represent 95% confidence intervals for these estimates. N = 1207, R² = 0.30 for Obama. N = 1208, R² = 0.26 for Bush. N = 1208, R² = 0.20 for Democrats in Congress. N = 1208, R² = 0.17 for Republicans in Congress.

Plot C and Plot D in Figure 2.5 show the estimated marginal effect of propensity to
moralize on the amount of blame Democrats and Republicans place on Democrats and Republicans in Congress, holding other control variables constant at their means. The solid and dashed lines in Plot C show that every one unit increase in propensity to moralize leads, on average, to a 0.01 point increase in the blame Republicans and a 0.03 point increase in the blame Democrats attribute to Democrats in Congress. This result fails to support my expectations that partisans who display a higher propensity to moralize are more likely to blame out-party leaders and excuse in-party leaders. Moralizers from both parties are not much different than non-moralizers in how much blame they place on Democratic leaders.

In Plot D, the solid line shows that every one unit increase in propensity to moralize leads, on average, to a -0.02 point decrease in the blame Republicans assign to Republicans in Congress. The dashed line shows that the same increase in propensity to moralize causes, on average, a 0.12 point increase in the blame Democrats place on Republicans in Congress. This figure illustrates that Democrats and Republicans grow more divided in their evaluations of Republican leaders as they move up the propensity to moralize scale.

2.7 How the Moralization of Politics Occurs

While this study is ultimately agnostic about how partisan moral convictions develop, it does provide some hints about the process. First, findings from this study suggest that it takes more than just association with a party to link political objects to people’s core moral beliefs and convictions. Principles from social identity theory suggest that the moralization and resulting one-sided view of politics could occur simply because people who tend to moralize politics are more likely to maximize perceived in-group similarities and out-group differences on the attribute of morality, causing them to view the in-party as fundamentally moral and the out-party as fundamentally immoral. As a result, candidates who are associated with one party or the other would be subject to the divisive evaluations that are driven by a high propensity to moralize. If connections with a party were enough to drive the moralization of politics, as this model suggests, we would expect to see partisan
moralizers display the same biased assessments of all party leaders.\textsuperscript{16}

This study, however, reveals key differences in the effects of propensity to moralize on affective polarization, which depend on factors like the prominence, specificity, and relevance of the partisan object being evaluated. For example, President Obama is the most divisive figure for morally convicted Democrats and Republicans of any leader in this study. The marginal effect of propensity to moralize on polarized affect toward Obama among individuals across the spectrum of political knowledge is larger than the marginal effect of propensity to moralize on polarized affect toward Romney or Gingrich among even high knowledge individuals. Likewise, the marginal effect of propensity to moralize on blame directed at President Obama, a specific party leader, is larger than the marginal effect of propensity to moralize on blame directed at Democrats or Republicans in Congress, both generic categories of party leaders. Finally, partisan moralizers are more polarized in the blame they attribute to President Obama, who is the current leader of the country, than in the blame they place on President Bush, who is much less politically relevant today.

These findings indicate that some aspect of being the current president, whether frequent media coverage, national prominence, well-publicized policy agendas, or current relevance, helps facilitate the connection between party leaders and moral intuitions. The results suggest a model where the moralization of politics takes place over time as people watch, discuss, and consider specific actions and messages by particular party leaders. In-party and out-party cues appear insufficient by themselves to drive morally convicted attitudes about political elites. Rather, individuals must build up a mental association between attitude objects like political candidates and a sense that the objects are moral or immoral. Future work should investigate this expectation in order to better understand what factors drive the moralization of politics, which in turn facilitates affective polarization.

\textsuperscript{16}More specifically, we would expect to see higher levels of negativity toward all out-party leaders because the social identity approach predicts that individuals view out-group members as more homogenous than in-group members—in this case, as all immoral (Haslam et al. 1996).
2.8 Discussion

Together, the results of this study provide evidence to support my theory. Partisans who tend to perceive political objects as matters of right and wrong are more likely to display polarized affect, job approval, and blame attribution. Across these variables, morally convicted partisans view in-party leaders more positively and out-party leaders more negatively than non-morally convicted partisans, which suggests that citizens who base their political evaluations on partisan moral convictions are more likely to exhibit affective polarization than citizens who base their evaluations on personal preferences or normative conventions. These findings pose three important implications for how we think about polarization, moral conviction, and electoral politics.

First, this study suggests another factor besides famously dominant partisan strength that drives affective polarization. While party identification significantly influences biased affect toward, job approval of, and blame attributed to party leaders, propensity to moralize also affects significant differences in these outcome variables between partisans.\textsuperscript{17} Even after controlling for party identification and ideology, and despite high levels of correlation between predictors in the models, I find that Republicans and Democrats become more divided in their evaluations of party leaders as their propensity to moralize politics increases. These results implicate moral conviction as a key factor that heightens affective polarization above and beyond what partisanship does alone.

Insights from this study about the divisive impact of moral conviction also help clarify the debate over the extent of mass polarization in the U.S. While political scientists have argued back and forth for years, it appears by now that much of the dispute over electoral polarization ultimately stems from disagreements about terms. Levels of partisan bias, anger, and antipathy, which characterize affective polarization, have clearly increased in the

\textsuperscript{17}It is important to note that propensity to moralize is not simply a proxy for greater partisan extremity. While there is a notable relationship between propensity to moralize and partisanship, regressing propensity to moralize on partisan extremity yields an R-squared value of 0.013, which suggests that partisan extremity explains less than 2\% of the variance in propensity to moralize.
American electorate, while citizens’ issue positions, which define issue-based polarization, remain relatively moderate (Hill and Tausanovitch 2015; Mason 2013, 2015).

Results from this study suggest we should not be surprised by this pattern of polarization. Citizens can agree on a majority of political issues, yet still be bitterly divided because they disagree about the parties, leaders, and policies that they consider to be matters of right and wrong, which are the few topics they actually care about. Also, partisans can perceive that one side is moral, and thus admirable, and the other immoral, and thus loathsome, without holding highly constrained, ideologically extreme issue attitudes. In this way, the polarizing effect of partisan moral convictions helps shape the political landscape we see today: a nation that agrees on many things but is still deeply divided.

Second, findings from this study suggest that citizens are now split along moral lines as well as partisan lines. A substantial gap exists between how moralizers and non-moralizers view partisan opponents and allies. When I control for partisanship and ideology, Democrats and Republicans who hold few moral convictions about politics barely differ in their evaluations of political elites, but partisans who habitually moralize politics are clearly divided in how they assess in-party and out-party leaders.

This gap raises questions about effective political representation. While many citizens are turned off by partisan division and desire greater cooperation across party lines, citizens who moralize politics are more likely to oppose compromise at all costs (Ryan 2016). When deciding whose views to represent, politicians have an electoral incentive to avoid alienating morally convicted individuals, who are more likely to participate in politics and turn out to vote (Morgan, Skitka and Wisneski 2010; Ryan 2014; Skitka and Bauman 2008). Consequently, political leaders might eschew bipartisan activities for what they view as an electoral advantage, leaving non-moralizers and moderates poorly represented.

Third, this study very tentatively suggests that it might be strategic for candidates to
moralize campaigns in order to inspire partisan allies to action, even if means angering partisan opponents. When the EGSS was administered in 2012, Barack Obama elicited much more aversion from morally convicted Republicans than either Mitt Romney or Newt Gingrich evoked from morally convicted Democrats. He also, however, inspired much more positive affect among Democratic moralizers than the GOP candidates roused among Republican moralizers. Nine months later, President Obama won reelection over Romney in large part because of high voter turnout among his supporters. Meanwhile, many Republican voters stayed home.

While this is one example, it makes sense for candidates to encourage their supporters to view an election as a moral decision. If they can convince their own side that they are the moral choice and the other candidate is the immoral choice, then they can harness the increased passion, loyalty, and participation that stem from moral conviction to benefit themselves in the election (Skitka and Morgan 2014). They lose little if they rile up the other side in the process, because members of the opposite party are unlikely to vote for them anyway. In contrast, they stand to lose a great deal if they fail to arouse the type of passion that inspires voter turnout. Consequently, a candidate’s success at encouraging supporters to develop morally convicted attitudes could help him or her win an election.

2.9 Conclusion

Findings from this study also raise two important normative questions about the nature of moral conviction and electoral politics. First, how can we moderate the affective polarization triggered by partisan moral convictions while also respecting individuals’ core moral beliefs about the political parties and their affiliates? Over the last few decades, the American electorate has grown increasingly divided along partisan lines, showing greater hostility toward partisan foes and greater favoritism toward partisan allies (Haidt and Hetherington 2012; Iyengar, Sood and Lelkes 2012; Iyengar and Westwood 2015; Lelkes and Westwood 2016; Mason 2013, 2015). Perhaps most troubling, this trend now includes
aversion to average citizens, not just political leaders and organizations, who side with the wrong political team (Pew 2014). This study suggests that people’s deeply held beliefs about right and wrong facilitate heightened levels of affective polarization, adding to the long list of moral conviction’s negative consequences (see Skitka and Morgan 2009, 2014).

Before we jump to encourage individuals to moderate their moral beliefs, however, we have to remember that moral convictions have positive implications as well. They encourage political engagement and collective action, and they serve as an information shortcut that facilitates coherent political opinions despite low levels of political sophistication (Ben-Nun Bloom 2013; Ryan 2014; Skitka and Bauman 2008). Also, some of the most important advances in our country’s history, such as the Civil Rights Movement, have occurred because individuals were willing to stand up for their fundamental beliefs about right and wrong (Chong 2014).

Second, how can politicians leverage the increased political participation and activism engendered by moral conviction without contributing to affective polarization? It might be electorally advantageous for political elites to moralize party platforms, issues, and campaigns. At the same time, however, we have to ask if it is normatively beneficial for the country as a whole. A moralized political climate makes it easier for citizens to firmly support their political side, but it also makes it easier for them to demonize the opposition.
3 THE PHYSIOLOGY OF MORAL CONVICTION

Abstract: Recent work in moral psychology shows that 1) humans have a complex suite of mental systems for processing morality, and 2) moral conviction is a distinct attitude dimension that influences politics. Despite the working assumption that moral conviction survey items accurately assess moral thinking, extant literature has yet to establish this connection. Building on evidence that moral perceptions are based on intuition and emotion, I theorize that moral conviction scores should correlate with physiological arousal if they are, in fact, measuring a distinctly moral way of thinking. I test this idea using a lab experiment designed to capture self-reported moral conviction and physiological arousal, and I find that arousal positively predicts conviction about political objects, but not other dimensions of attitude strength. This study helps validate the moral conviction measure, highlights the value of using physiological indicators to study politics, and poses important implications for how we think about political conflict and compromise.

3.1 Introduction

Over the years, scholars across disciplines have presented findings that challenge the political behavior and attitudes predicted by rational choice or utilitarian models. People respond to monetary incentives by violently opposing compromise on issues they link to their sacred values (Atran, Axelrod and Davis 2007; Ginges et al. 2007). They turn down financial benefits to prevent political opponents from gaining ground on issues they view as
moral concerns (Ryan 2016). They are outraged by legislation that would apply commercial principles to what they define as sacred issues (Tetlock et al. 2000). These and other examples show that people behave in ways that contradict logical, cost-benefit assumptions when their sense of right and wrong is challenged.

A substantial body of work in psychology and neuroscience has shown that people engage in a distinctive mode of thinking, termed moral cognition, when they process stimuli they perceive to be matters of right and wrong (e.g., Greene 2009; Moll et al. 2005; Van Bavel, FeldmanHall and Mende-Siedlecki 2015).1 Another line of research suggests that we can capture this type of thinking with survey questions that measure moral conviction, or the perception that an attitude is connected to one’s core beliefs about right and wrong (see Skitka 2010, 2014). This literature demonstrates that self-reported moral conviction predicts a range of political attitudes and actions, including partisan intensity, voting intentions, issue attitudes, collective action, and political compromise (Ryan 2014, 2016; Skitka and Morgan 2014). It also suggests that moral conviction is distinct from other dimensions of attitude strength like extremity and importance.

Despite the working assumption that moral conviction survey items capture moral cognition, extant literature has yet to establish this connection. As a result, we are unsure whether moral conviction measures really tap into moral thinking, or simply pick up on other aspects of attitude intensity, which people interpret as moral conviction when they are prompted to by certain survey questions. Moral psychology and politics is a burgeoning area of research, and studies continue to uncover new political effects of moral conviction. Moving forward, therefore, it is important to determine whether the widely used moral conviction battery actually captures a distinct attitude dimension linked to moral cognition,

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1In this paper, the term “cognition” refers to the general information processing performed by the human nervous system, not the subset of slow, deliberative, and rational mental processes that contrast with rapid, intuitive, and affective mental processes (see Greene 2008; Cushman, Young and Greene 2010). The terms “moral cognition” and “moral thinking” are used interchangeably to signify the complex mental processes we perceive as morality.
versus an artifact of question wordings and respondent attributes. The answer to this question is consequential for how we think about the depth and stability of moralized attitudes. It also helps address the puzzle of why moral convictions often trigger political outcomes that defy rational choice frameworks.

In this study, therefore, I establish and then test a theory about what we should see if moral conviction items really measure a moral way of thinking. Because moral cognition is closely linked to automatic visceral reactions and strong emotions, I argue that higher levels of self-reported moral conviction should be associated with higher levels of physiological arousal. Also, if moral conviction items really assess a uniquely moral attitude dimension, then moral conviction should correlate with physiological arousal in a way that nonmoral attitude dimensions do not. Based on this theory, I hypothesize that the physiological arousal triggered by political objects will positively predict self-reported moral conviction about the objects, but not other dimensions of attitude intensity.

To test these expectations, I conduct a lab-based experiment designed to capture self-reported moral conviction and physiological arousal, based on skin conductance, while participants complete a computer survey about political issues, parties, and leaders. Then, I run models testing how physiological arousal correlates with moral conviction scores, as well as with scores on other dimensions of attitude strength.

I find that physiological arousal significantly predicts self-reported moral conviction, but not self-reported attitude extremity nor attitude importance. These results suggest that moral conviction items do tap into moral thinking, supporting the construct validity of this measure. They also indicate that moral conviction is integrally linked to physiological processes related to intuition, emotion, and arousal. We know that morally convicted attitudes influence politics in a myriad of ways, and this study helps explain why they are so deeply held, intensely divisive, and puzzling from a rational choice or utilitarian perspective. It also raises normative questions about the proper place for moral conviction in politics.
3.2 Moral Cognition

Humans are equipped with dynamic mental systems for making moral appraisals, which are comprised of complex interactions between multiple brain regions and neural networks that rapidly trigger the perception that something is a matter of right and wrong (Greene et al. 2001, 2004; Greene 2009, 2015; Hutcherson et al. 2015; Kaplan et al. 2016; Moll et al. 2002, 2005). FMRI studies show that sacred values and moral dilemmas trigger increased activity in the temporoparietal junction and ventrolateral prefrontal cortex, regions of the brain that fire when we consider semantic rules (Berns et al. 2012; FeldmanHall, Mobbs and Dalgleish 2014; Jeurissen et al. 2014; Young et al. 2010). They also demonstrate that moral thinking activates the amygdala, ventromedial prefrontal cortex, and orbitofrontal cortex, parts of the brain that are linked to emotion and arousal (Borg et al. 2006; Decety and Cacioppo 2012; Duc et al. 2013; Harenski and Hamann 2006; Luo et al. 2006; Moll et al. 2002; Moll and de Oliveira-Souza 2007; Young and Dungan 2012). Injuries to these areas of the brain substantially impair moral judgments (Anderson et al. 1999; Koenigs et al. 2007; Mendez, Anderson and Shapira 2005; Moretto et al. 2010).

Moral psychologists have debated the role that consequentialist and deontological processing play in driving moral cognition. The former is defined by its focus on the outcome of an action, usually in terms of costs and benefits incurred. The latter is defined by its emphasis on rules and obligations of right and wrong that are indifferent to consequences (see Greene 2008). Deontological processing is rapid, intuitive, and affective, while consequentialist processing is slow, deliberate, and rational (Cushman, Young and Greene 2010).

2Some scholars argue that the specialized, species-typical mental processes that trigger a sense of right and wrong developed to help regulate group interactions and solve group coordination problems (DeScioli and Kurzban 2009, 2013; Greene 2013; Rai and Fiske 2011).


4Consequentialist processing is often referred to as utilitarian processing.

5In this case, the term “rational” denotes using deliberative reasoning to reach a decision, rather than the normative optimality or sensibility of a decision.
Despite the debate, there is persuasive evidence to expect that deontological processing underlies the perception that something is a moral concern. First, people often report knowing that certain behaviors are wrong without being able to explain reasons why they are wrong, which suggests a deontological mode of thinking (Haidt, Koller and Dias 1993; Haidt 2001, 2012). Second, sacred values trigger areas of the brain that process deontic rules, rather than utilitarian considerations (Berns et al. 2012). Third, sacred values influence individuals to reject material incentives, which indicates that people’s sense of morality stems from deontological versus consequentialist evaluations (Atran and Ginges 2015; Tanner 2009). Finally, moralized attitudes predict preferences for rule-based arguments and rejections of cost-benefit appeals, which suggests a connection between perceptions of morality and deontological processing (Ryan 2015).

3.3 Moral Conviction

Another body of work shows that some attitudes are rooted in people’s fundamental beliefs about right and wrong (e.g., Skitka 2010, 2014). These attitudes are held with strong moral conviction, a dimension of attitude intensity that reflects a person’s perception that an object is a moral concern. Moral conviction is fundamentally different from other aspects of attitude strength like extremity, centrality, and importance, and moralized attitudes are unique in that people experience them as objectively true, universally applicable, inherently motivating, and distinctly independent of external authority and peer influence (Aramovich, Lytle and Skitka 2012; Skitka, Bauman and Sargis 2005). Morally convicted attitudes also trigger more hostile opinions, punitive actions, and negative emotions than other strong but nonmoral attitudes (Mullen and Skitka 2006; Ryan 2014; Skitka and Wisneski 2011; Skitka et al. 2012; Wright 2012; Wright, Cullum and Schwab 2008).

In addition, moral conviction affects politics in numerous ways, shaping issue attitudes, motivating political engagement, influencing voting decisions, and preventing political compromise (Ben-Nun Bloom 2013; Morgan, Skitka and Wisneski 2010; Ryan 2014,
Moralized attitudes also influence perceptions of political legitimacy, opinions about the justness of legal decisions, and willingness to accept political violence (Bauman and Skitka 2009b; Skitka 2002; Skitka, Bauman and Mullen 2008; Skitka, Bauman and Lytle 2009; Skitka and Morgan 2009). Finally, moral conviction encourages polarized evaluations of party leaders (Garrett 2015). Overall, these findings suggest that moral conviction is a distinct dimension of attitude intensity that profoundly influences political attitudes and behavior.

3.4 The Disconnect Between Moral Cognition and Moral Conviction

At this point, the literatures on moral cognition and moral conviction remain largely isolated from each other. This division is problematic because the measurement strategy for operationalizing moral conviction rests on the idea that people can reliably identify and report their visceral perception that an attitude has a moral basis. The untested assumption is that moral conviction survey items capture the unique mental processes that we perceive as morality, and the morality and politics literature relies on these items as an accurate measure of moralized attitudes.\(^6\)

Most studies examining the relationship between moral conviction and other political, social, and cognitive variables utilize Skitka and colleagues’ innovative survey-based measurement strategy to assess moral conviction (see Skitka 2010, 2014). This approach relies on questions that directly ask people how much their attitudes toward an object are connected to their moral beliefs. Most commonly, studies ask participants to what extent their opinion on an issue is “a reflection of [their] core moral beliefs and convictions” and “deeply connected to [their] fundamental beliefs about right and wrong” (e.g., Skitka, Bauman and Lytle 2009; Skitka, Bauman and Sargs 2005; Skitka and Wisneski 2011).\(^7\) These

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\(^6\)Ryan (2015) does, however, present survey-based evidence that moral conviction is associated with the type of deontological, rule-based processing that underlies perceptions of morality.

\(^7\)Other studies include similar questions. For example, Hornsey and colleagues (Hornsey et al. 2003;
questions attempt to capture a person’s intuitive recognition that something is, in his or her own perspective, a matter of right and wrong.

The moral conviction battery is an advancement over other empirical methods of assessing morality. Rather than assuming what issues should be considered moral or immoral, it allows scholars to measure the substantial individual-level variance that exists in the extent to which people moralize any given issue (Skitka, Morgan and Wisneski 2015). For this reason, moral conviction items better capture the reality that many people consider certain “economic” topics to be moral concerns, while they do not perceive certain putatively “moral” issues to be matters of right and wrong (Ryan 2014). Also, this approach avoids conflating morality and religion, which are two distinct constructs (Morgan, Skitka and Wisneski 2010; Wisneski, Lytle and Skitka 2009). Finally, other studies have shown that the moral conviction measure is reliable across samples and studies (Skitka 2010, 2014).

Despite the many advances in this methodological approach, we still lack confirmation that it actually captures a distinctly moral way of thinking. It is quite plausible that the moral conviction battery evaluates other aspects of attitudes, such as negative or positive arousal, which people then interpret as moral conviction when they are prompted to by certain survey questions. For example, a person who cares deeply about an issue for personal but nonmoral reasons might answer “very much” when asked how much her opinion on the issue reflects her “core moral beliefs and convictions” because she thinks a more moderate answer signals she is unconcerned about the issue. In contrast, someone who instinctively considers an issue to be a matter of right and wrong might moderate his self-reported conviction after additional deliberation and rationalization. As these examples suggest, the hypothesized connection between self-reported moral conviction and moral cognition is far from an established conclusion.

Horne, Smith and Begg 2007) ask respondents how much they feel their position is “based on strong personal principles,” “a moral stance,” and “morally correct.” Skitka, Bauman and Sargis (2005) and Brandt and Wetherell (2012) ask the single question “To what extent are your feelings about this issue a reflection of your core moral values and convictions?”
3.5 Linking Moral Cognition and Moral Conviction

Several pieces of indirect evidence suggest that the moral conviction battery does assess moral cognition. First, moral conviction scores do not reduce to religiosity, cognitive styles, other dimensions of attitude strength, or other political variables, which suggests that moral conviction is a distinct construct (Ryan 2014; Skitka, Bauman and Sargis 2005; Wisneski, Skitka and Morgan 2011). Second, morally convicted attitudes make citizens more receptive to rule-based arguments and less receptive to cost-benefit arguments, suggesting a connection to deontological processing (Ryan 2015). Third, moral conviction scores predict negative emotions, punitive actions, bias, hostility, and intolerance (Garrett 2015; Ryan 2014; Skitka, Bauman and Sargis 2005; Skitka and Morgan 2014). These are the type of reactions we would expect to be triggered by the mental systems that underlie moral thinking, particularly because these systems are theorized to play a role in policing adherence to social rules, regulating relationships, and stoking tribalism (DeScioli and Kurzban 2009, 2013; Haidt 2007, 2012; Rai and Fiske 2011). Overall, these findings tentatively support the notion that moral conviction items are 1) actually measuring a moral way of thinking, and 2) capturing a distinct dimension of attitude intensity.

If moral conviction items do tap into moral thinking, then high levels of self-reported conviction should be accompanied by moral intuition. Research shows that moral thinking is largely based on intuition, rather than reasoning or logic (Greene and Haidt 2002; Haidt 2001, 2007, 2012). People first identify whether something is right or wrong based on strong visceral feelings, not deliberative thought, and they often report knowing that something is wrong without being able to explain why (Damasio 1994; Haidt, Koller and Dias 1993; Cushman, Young and Hauser 2006). Even those studies that suggest a role for both intuition and deliberation in moral cognition report that the immediate intuition that something is a moral concern precedes and predominates reasoned deliberation (Cushman, Young and Greene 2010; Greene 2008; Szekely and Miu 2015a).
If moral conviction measures do assess moral cognition, then conviction scores should also be associated with heightened affect. Several studies demonstrate that moral thinking is tightly linked to strong emotions like anger, disgust, contempt, and compassion (Haidt 2003; Hutcherson and Gross 2011; Keltner, Horberg and Oveis 2006; Rozin et al. 1999; Tangney, Stuewig and Mashek 2007). Also, neuroscience research shows that moral evaluations activate regions of the brain that process emotion (Decety and Cacioppo 2012; Duc et al. 2013; Luo et al. 2006; Moll et al. 2002; Prinz 2015; Young and Dungan 2012). Damage to these areas results in impaired moral judgment, which suggests that affect and moral cognition are integrally linked (Anderson et al. 1999; Greene 2009; Koenigs et al. 2007; Mendez, Anderson and Shapira 2005; Moretto et al. 2010). Studies also indicate that stronger emotional arousal predicts more frequent and intense moral judgments (Horberg, Oveis and Keltner 2011; Navarrete et al. 2012).

The automatic visceral and emotional reactions associated with moral thinking should trigger specific physiological responses (Cacioppo, Tassinary and Berntson 2007). A wide range of studies show that moral intuitions and emotions activate the autonomic nervous system and evoke heightened levels of physiological arousal (e.g., Cushman et al. 2012; Horberg, Oveis and Keltner 2011; Kragel and LaBar 2013, 2014; Moretto et al. 2010). This means that if moral conviction items are tapping into moral cognition, then higher moral conviction scores should be associated with stronger physiological responses. Based on this idea, I expect:

H1: Physiological arousal in response to specific political objects will positively predict self-reported moral conviction about the objects.

In addition, if moral conviction scores do capture a distinctly moral attitude dimension, they should correlate with the type of automatic arousal that stems from moral cognition in

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8Even studies that question the connection between moral thinking and discrete emotions report that moral cognition is tied to core affect (Cameron, Lindquist and Gray 2015).
a way that other attitude intensity scores do not. Moral thinking leads to stronger intuitive reactions and emotional arousal than other types of deliberative, consequentialist thinking (Cushman, Young and Greene 2010; Cushman et al. 2012; Greene et al. 2001, 2004; Haidt 2001; Haidt, Koller and Dias 1993). As a result, nonmoral evaluations elicit much weaker affective responses than moral judgments (Arsenio and Lover 1995, 1997; Skitka, Bauman and Sargis 2005). For this reason, issues linked to strong but nonmoral attitude dimensions should trigger less emotional arousal than issues linked to moral conviction, and self-reported moral conviction should correlate more closely with physiological arousal than self-reports about other dimensions of attitude intensity. This leads me to posit:

**H2:** Physiological arousal in response to specific political objects will not significantly predict self-reported attitude extremity.

**H3:** Physiological arousal in response to specific political objects will not significantly predict self-reported attitude intensity.

### 3.6 Physiological Response Indicators

We can test these hypotheses using physiological response indicators, which provide a valid measure of the type of visceral and emotional arousal that should accompany moral cognition. Psychophysiology research shows that increases in affect, attention, and arousal lead to measurable changes in heart rate, respiration, perspiration, muscle tension, gastrointestinal activity, and facial expressions (Cacioppo et al. 2000; Cacioppo, Tassinary and Berntson 2007; Damasio 1994, 1999, 2003). Since physiological indicators rely on readings from sensors rather than self-reports, they allow us to assess elements of affective response that occur automatically, intuitively, and often outside of conscious awareness. In this way, they provide an objective standard of comparison by which to evaluate survey constructs like moral conviction, which should be linked to reflexive arousal.

Political and moral psychology research has increasingly leveraged physiological response indicators to analyze people’s automatic reaction to political messages and moral
dilemmas. Political scientists have used physiological measures to study how levels of arousal and emotion predict responses to campaign ads, political debates, threatening prompts, and aversive stimuli (e.g., Dodd et al. 2012; Gruszczynski et al. 2013; Karl 2015; Mutz 2007; Oxley et al. 2008; Smith et al. 2011). Moral psychology studies have employed physiological indicators to assess people’s visceral response to various moral scenarios (Cushman et al. 2012; Krosch, Figner and Weber 2012; Lee and Gino 2015; Moretto et al. 2010). This research suggests that physiological measures can be used to capture the distinct patterns of arousal elicited by moral evaluations, which means they can be leveraged to test whether moral conviction items are tapping into moral cognition.

When it comes to selecting a specific physiological indicator to assess the affective arousal triggered by moral thinking, electrodermal activity (EDA) is a particularly appropriate choice. EDA is the rate of movement of electricity across the surface of the skin. Higher EDA stems from increased activation of the sympathetic branch of the autonomic nervous system (ANS), which is the fight or flight system. When people are aroused, their sympathetic nervous system (SNS) is activated, causing their sweat glands to release moisture. This increased moisture heightens the rate of movement of electricity across the surface of the skin, increasing EDA.

Whereas other physiological responses, such as cardiovascular and gastrointestinal activity, lie under control of both the SNS and the parasympathetic nervous system (PNS), EDA only lies under SNS control. For this reason, EDA has long been accepted as a direct and reliable indicator of emotional arousal (Dawson, Schell and Filion 2007; Hubert and de Jong-Meyer 1991; Kreibig 2010; Lang 1995). There is also substantial evidence that EDA is influenced by regions of the brain that are linked to moral cognition (Boucein

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9See Dawson, Schell and Filion (2007) and Smith and Hibbing (2011) for a helpful review of psychophysiological indicators, including EDA.

10As Cacioppo et al. (2000) point out, it is important to note that skin conductance is a reliable measure of the intensity of arousal, but it is not a valid indicator of the valence of arousal (e.g., positive versus negative affect) nor of discrete emotions (e.g., anger versus disgust).
2012; Critchley 2002; Van Bavel, FeldmanHall and Mende-Siedlecki 2015), and several studies have used EDA to study the link between emotions, arousal, and moral judgments (e.g. Krosch, Figner and Weber 2012; Moretto et al. 2010; Navarrete et al. 2012).

The most widely studied property of EDA is skin conductance. The primary skin conductance measure used in this study is skin conductance level (SCL), which reflects a person’s general level of autonomic arousal (see Braithwaite et al. 2013; Dawson, Schell and Filion 2007). Higher values of SCL indicate more EDA and greater arousal.

3.7 Procedures and Measurement

To test my expectations, I conducted a lab-based experiment designed to capture self-reported moral conviction and physiological arousal while participants completed a computer survey about political issues, parties, and leaders. The experiment was conducted at a large public university in the Southeast from April to May of 2015, and 72 college students participated in the study.11 Participants were recruited from an introductory American Government class and given course credit for participating in the study, as well as the chance to win a $25 gift card. There was variation within the sample regarding party identification (56% Democratic, 41% Republican), ideology (54% liberal, 31% conservative, 15% moderate), gender (51% male, 49% female), and race and ethnicity (73% white, 14% black, 13% other). The mean age of the sample was 19.9 years.12

Participants came into the lab one at a time. After they listened to consent information and signed an informed consent document, equipment was attached to capture skin conductance, heart rate variability, and respiratory rate.13 To assess skin conductance, which is the

11 This sample size is substantially larger than existing studies using EDA to study politics. For example, Daignault, Soroka and Giasson (2013) had N = 31; Dodd et al. (2012) had N = 48; Karl (2015) had N = 61; Oxley et al. (2008) had N = 46; Smith et al. (2011) had N = 50; and Wang, Morey and Srivastava (2014) had N = 15. Data from one participant had to be removed due to electrodermal nonresponsiveness (see Braithwaite et al. 2013; Figner and Murphy 2011). Results are the same even if this data is included in the analyses.

12 Karl (2015) uses a mixed sample of college students and adults and reports no difference in the physiological responsiveness of student and adult participants.

13 Heart rate variability data will be used in later research, and respiratory rate data is used to smooth out any artifact in the skin conductance signal caused by strange breathing patterns like yawns or coughs.
primary physiological measure of interest, two disposable electrodes were placed on the thenar and hypothenar eminences of the palm of subjects’ non-dominant hand (Boucsein 2012; Dawson, Schell and Filion 2007). Following established protocol, participants’ hands were not pretreated prior to electrode attachment.

After equipment was attached, participants were brought into a sound-proof observation room and seated in a chair, which had an armrest table where they could rest their measurement hand palm side up on a soft towel (Figner and Murphy 2011). The chair faced a 21.5-inch computer monitor that displayed an electronic survey. The room was also equipped with three cameras. Two cameras were focused on the participant to record behavioral data and to allow the researcher to control for signal artifacts caused by participant movement. One camera was focused on the computer monitor. After an acclimation period of approximately 9 minutes, participants were led through standard calibration exercises, including deep breaths, a cough, and a mental task, to verify that the physiological response equipment was attached and recording properly. Next, participants were instructed to get comfortable and then keep their measurement hand as still as possible over the course of the experiment.

For the study, participants completed a standard computer survey administered through the Qualtrics survey platform, which took about 30-40 minutes to complete. They were instructed to go through the survey at their own pace, using a mouse to answer questions with their non-measurement hand. Then, they were left by themselves to take the survey, which started off with a 90-second baseline period to establish their resting EDA. Finally, participants answered basic demographic questions before beginning the experiment.

The experiment was divided into blocks of questions regarding 9 political issues, 2

14 The one ambidextrous participant was asked which hand he preferred to use to operate a computer mouse, and electrodes were attached to the opposite hand.

15 Alcohol swabs dry out the skin, and soap can cause swelling of the epidermis (Boucsein 2012).

16 Attaching the electrodes 5-10 minutes before data recording begins allows the electrode gel time to soak into the skin and helps ensure a consistent signal (Boucsein 2012; Boucsein et al. 2012).
political parties, and 4 political leaders. Because the purpose of this study is to examine within-subject differences in moral conviction and physiological responsiveness, there was only one “condition,” and participants all answered the same questions about every issue, party, and leader. The issues were abortion, the death penalty, fracking, free trade agreements, illegal immigration, mandatory vaccinations, the minimum wage, student loan forgiveness, and same-sex marriage. These issues were selected to ensure that participants were asked about a range of issues that they might consider to be moral or nonmoral, economic or social, politicized or non-politicized, relevant or irrelevant, and familiar or unfamiliar. The leaders were John Boehner, Hillary Clinton, Barack Obama, and Mitt Romney. These politicians were selected because they were prominent at the time the study was conducted. The parties were the Democratic and Republican Parties.

Each block of questions followed the same order. First, participants were asked to read and think about a generic statement regarding one of the 15 issues, parties, or leaders.\footnote{These statements and the issue opinion questions that followed were constructed based on public opinion survey items from national polling firms like Gallup and Pew Research Center.} Figure 3.1 provides two examples of the type of prompts participants received: one for the issue of fracking and the other for Hillary Clinton.\footnote{A list of all prompt wordings is included in the appendix for this chapter.} Each prompt served as the stimulus to evoke physiological arousal, and the time participants spent on the survey page for each prompt defined the main stimulus interval (SI) during which skin conductance level (SCL) was recorded. To help ensure that the experiment was a hard test of my hypotheses, the political prompts were designed so that any arousal would result from the content of the prompts, rather than the method of delivering the prompts. Whereas most EDA studies rely on disgusting images, emotive video clips, or loud startle sounds to elicit arousal (e.g., Dodd et al. 2012; Gruszczynski et al. 2013; Oxley et al. 2008; Smith et al. 2011; Wang, Morey and Srivastava 2014), I simply had participants read the type of statement that would appear on a generic survey. For this reason, any arousal should be triggered by the nature
of the political object described in the prompt.\footnote{To help participants identify political leaders, a generic picture of each leader was placed above the text for each political leader prompt.}

Figure 3.1: Examples of Political Prompts Shown During Stimulus Intervals

\begin{itemize}
\item \textbf{Fracking}

\textit{Hydraulic fracturing, or “fracking,” is a drilling method that uses high-pressure water and chemicals to extract oil and natural gas from underground rock formations. Some people favor fracking because they think it has a positive impact on energy production and our economy. Other people oppose fracking because they think it has a negative impact on water quality and our environment.}

Pause for a moment and consider both sides of the fracking debate. Then think about your own opinion on fracking. Once you have thought about the debate and your own position, click >>.

\item \textbf{Hillary Clinton}

\textit{Hillary Clinton recently announced that she will run for president in 2016. Some people favor Clinton because they tend to agree with her political stances and/or to like her as a leader. Other people oppose Clinton because they tend to disagree with her political stances and/or to dislike her as a leader.}

Pause for a moment and consider why people might favor or oppose Hillary Clinton. Then think about your own opinion on Hillary Clinton. Once you have thought about the different positions and your own opinion, click >>.
\end{itemize}

Second, participants were asked their opinion about the issue, party, or leader described in the stimulus prompt. Third, they were asked questions to assess their moral conviction about the political object, as well as questions to measure object importance and familiarity.\footnote{Examples of question wordings are included in the appendix for this chapter.} Finally, participants were asked a series of questions to evaluate what emotions were evoked by each political prompt.

After answering these questions, participants were shown a blank screen with a large “X” in the center for 15 seconds. This time period immediately following one block of questions and preceding another served as the interstimulus interval (ISI) during which
any physiological response to a political object could return to baseline. After each ISI, another block of questions about a different political object was shown, starting with the key stimulus prompt. Issue, party, and leader blocks were presented in a random order to account for any order effects or habituation of the skin conductance response. Figure 3.2 illustrates the order of survey pages in each issue, party, and leader block.

Figure 3.2: Order of Survey Pages in Political Issue, Leader, and Party Blocks

| X on the Screen Interstimulus Interval (ISI) 15 s | Political Prompt Stimulus Interval (SI) 13.5 s (mean) 8.5 s (sd) | Opinion Question Attitude Extremity 6.6 s (mean) 4.4 s (sd) | Additional Questions Moral Conviction, Attitude Importance, Familiarity & Emotions 33.6 s (mean) 13.6 s (sd) | Repeat with next prompt |

At the end of the survey, subjects answered several questions to operationalize variables that might influence conscious filtering of self-reported moral conviction, including political knowledge, cognitive processing styles, personality traits, and religious affiliation and commitment. Finally, the survey ended with another 90-second baseline period. After the survey was finished, physiological response equipment was removed, and participants were debriefed about the purpose of the experiment and asked if they had any questions about the project. The entire process took about an hour.

Physiological response data was recorded continuously over the entire course of the experiment.

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21 While skin conductance has a relatively slow recovery time, studies suggest that an ISI of 10 seconds is sufficient for studying differential responses to one type of stimuli relative to another (Boucsein 2012; Boucsein et al. 2012; Breska, Maoz and Ben-Shakhar 2011).

22 Some of the EDA literature suggests that participants should be shown an initial scenario to familiarize them with a task and reduce arousal triggered by the newness of a scenario, so every participant was shown the issue of free trade agreements first (e.g., Dawson, Schell and Filion 2007).

23 Figner and Murphy (2011) recommend a second baseline recording at the end of the experiment to account for the slow drift present in SCL signals.
survey and stored for analysis. Video footage of the participants and surveys was also recorded continuously during the experiment and time synced with the physiological response data. While participants completed the survey, I watched a live video feed of their computer screen in a separate control room. This allowed me to place an electronic marker in the physiological response data file every time a new survey page came up on the screen, when participants answered specific survey questions, and when participants coughed or sneezed. These markers were used during data analysis to specify the time window for the SI and ISI, as well as to remove signal artifacts.

Self-reported moral conviction is operationalized using the standard questions: 1) “To what extent is your opinion on [issue X] a reflection of your core moral beliefs and convictions?” and 2) “To what extent is your opinion on [issue X] deeply connected to your fundamental beliefs about right and wrong?” Response options range from “not at all” to “very much” on a 5-point scale. Following established protocol, scores on the two questions are averaged together to form one moral conviction score for each issue (Ryan 2014; Skitka 2014).

The average moral conviction score across all 15 political objects is 3.11 (SD = 1.23), which represents slightly more than “moderate” conviction. Average conviction about the political objects ranges from a high of 4.05 (SD = 0.99) on abortion to a low of 1.96 (SD = 1.18) on John Boehner. Abortion, same-sex marriage, and the death penalty top the list of issues that are viewed as moral concerns, while student loan forgiveness, the minimum

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24 Skin conductance, heart rate variability, and respiratory rate data were recorded using Mindware’s Cardio Mobile Ambulatory Impedance Cardiograph (Model 50-2303-00) and BioLab software (v 3.1.1), sampled at 500 Hz (samples/second).

25 Cronbach’s α statistics are generally 0.90 and above for the two questions (see Skitka and Morgan 2014), and Cronbach’s α for this study is 0.90. I still get the same results if I use one question or the other to operationalize moral conviction, instead of the average score.

26 This score is slightly higher than the average moral conviction reported about ten political issues included on the 2012 ANES Evaluations of Government and Society Study (2.88, SD = 1.13).

27 On average, self-reported moral conviction is highest about the political parties (3.46, SD = 0.96), moderate about the political issues (3.14, SD = 1.25), and lowest about the political leaders (2.87, SD = 1.25).
Physiological arousal is operationalized as the ratio of change in skin conductance level (SCL) for each political prompt. This ratio is calculated by dividing the average SCL obtained during a stimulus interval by the average SCL obtained during the ISI that preceded the stimulus interval. Because individuals vary dramatically in their resting SCLs and overall electrodermal responsiveness, EDA studies typically standardize data to reflect within-subject changes from a previous baseline period (Dawson, Schell and Filion 2007; Miller and Long 2007). This method adjusts for individual differences in responsiveness and provides a more reliable measure than absolute SCL (Ben-Shakhar 1985).

Physiological arousal scores range from 0.78 to 1.70. Scores over 1 reflect an increase in average SCL relative to the previous ISI, and scores below 1 indicate a decrease in average SCL. The mean arousal score across all 15 political objects is 1.003 (SD = 0.068), which represents a slight increase in arousal. Average physiological arousal for each political object ranges from a high of 1.02 (SD = 0.10) during the death penalty prompt to a low of 0.97 (SD = 0.05) during the free trade agreements prompt.

In order to compare how physiological arousal affects self-reported moral conviction, relative to other dimensions of attitude strength, I also include questions to evaluate attitude extremity and importance. To operationalize attitude extremity, or “the extent to which an attitude deviates from neutrality” (Krosnick and Petty 1995, 6), I ask participants their opinion on each political issue, party, and leader. Response options range from “strongly favor” to “strongly oppose” on a 5-point scale, which is folded on its neutral point to construct a 3-point scale of attitude extremity. Attitude importance, or “the extent to which an individual

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28 A table with the average self-reported moral conviction and physiological arousal scores for every political object is included in the appendix for this chapter.

29 Average SCL for each ISI and stimulus interval was calculated using MindWare’s Electrodermal Activity (EDA) Analysis Software (v 3.1).

30 This score is typical of the average EDA response reported in other studies (see Dawson, Schell and Filion 2007; Gruszczynski et al. 2013).
cares deeply about and is personally invested in an attitude” (Krosnick et al. 1993, 1132), is operationalized by asking participants, “How important is this issue to you personally?”31 Answers are given on a 5-point scale from “not important at all” to “extremely important.”

3.8 Analyses and Results

To assess my first expectation that physiological arousal positively predicts self-reported moral conviction, I pool the data from all 71 participants and all 15 political prompts (N = 1062).32 Then, I regress (OLS) self-reported moral conviction on physiological arousal.33 I include fixed effects for each participant and prompt in order to control for any unique characteristics of the individuals or political objects that might be driving the results.34 To ensure that differences in physiological arousal are not driven by differences in the amount of time that participants spent reading each prompt, I also control for the length of the stimulus interval, which ranges from 1.4 to 60.8 seconds.35

Table 3.1 summarizes the results of this model. It shows that physiological arousal has a marginal effect of 0.78 on self-reported moral conviction, which is significant at the 0.10 level ($p = 0.06$). This represents approximately a 0.70 point increase in conviction over the total range of physiological arousal (0.78 to 1.70). As hypothesized, scores on the moral conviction measure positively correlate with the type of arousal we would expect to be triggered by moral cognition, which suggests that the moral conviction survey items are

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31 For the sake of time and clarity in the survey, this question is only asked about the 9 political issues.

32 Three observations are dropped based on Cook’s distance scores of 0.022, 0.011, and 0.009, which are well above the cutoff of 0.004 for outliers. I get nearly identical results when these observations are included, but elect to drop them because they correspond with anomalies that were noted during the lab sessions.

33 Because I am interested in studying the correlation between these two variables, the side of the model to which they are assigned is ultimately unimportant. When I switch the variables and run models regressing physiological arousal on self-reported moral conviction, I get matching results, which are included in the appendix for this chapter.

34 To examine how the effect of physiological arousal on moral conviction changes across issues, I also run a multilevel model, allowing the intercepts and slopes for arousal to vary across the 15 political prompts. Results from this model are included in the appendix for this chapter.

35 $\text{Moral Conviction}_i = \beta_0 + \beta_1 \text{Physiological Arousal}_i + \beta_2 \text{Stimulus Time}_i + \beta\{3 - 17\} \text{prompt fixed effects}_i + \beta\{18 - 88\} \text{participant fixed effects}_i + e_i$
actually tapping into moral thinking.

Table 3.1: Estimated Effect of Arousal on Moral Conviction

<table>
<thead>
<tr>
<th></th>
<th>Self-Reported Moral Conviction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiological Arousal</td>
<td>0.78(^{+}) (0.41)</td>
</tr>
<tr>
<td>Stimulus Time</td>
<td>−0.01 (0.01)</td>
</tr>
<tr>
<td>(Intercept)</td>
<td>3.15(^{***}) (0.45)</td>
</tr>
<tr>
<td>Prompt Fixed Effects</td>
<td>Included</td>
</tr>
<tr>
<td>Participant Fixed Effects</td>
<td>Included</td>
</tr>
<tr>
<td>R(^2)</td>
<td>0.53</td>
</tr>
<tr>
<td>N</td>
<td>1062</td>
</tr>
</tbody>
</table>

\(^{***}\)p < 0.001, \(^{**}\)p < 0.01, \(^{*}\)p < 0.05, \(^{+}\)p < 0.10, two-tailed test of significance. Data from issue, party, and leader prompts. Heteroskedasticity-consistent standard errors.

Since the previous model does not include covariates that would be collinear with the fixed effects, it is hard to interpret the substantive impact of arousal. In order to get some baseline by which to compare the effect of arousal to that of other potential predictors, I also regress self-reported moral conviction on physiological arousal, key demographic factors that might influence conviction, a control for stimulus time, and random effects for the political prompts and participants. I include a dummy variable for gender (female), a dummy variable for race/ethnicity (white), and a continuous variable for age (18 to 36). I control for strength of partisanship (4-point scale) and strength of ideology (4-point scale), which I operationalize by folding 7-point party identification and ideology at their midpoints.\(^{36}\) I include a variable for political knowledge (5-point scale), which is operationalized by summing the correct answers to four general political knowledge questions, and an indicator of

\(^{36}\)I also run models including party identification and ideology (7-point scales) instead of partisan and ideological strength, but these variables have no significant effect on self-reported moral conviction.
need for cognition (3-point scale), which is formed by averaging responses to the two standard questions used to assess how much people enjoy effortful thought (Bizer et al. 2000). I control for religious commitment (6-point scale), which is operationalized by averaging two questions that evaluate how frequently people attend religious services and pray. Finally, I include prompt and participant random effects to model individual- and group-level clustering in the data.

The coefficient plot in Figure 3.3 illustrates the results of this analysis. Each point shows the estimated marginal effect of a predictor on self-reported moral conviction, and each line illustrates the 90% confidence interval for an estimate. Physiological arousal is one of four variables, along with political knowledge, age, and strength of partisanship, that has a significant effect on self-reported moral conviction at the 0.10 level. The marginal effect of arousal on conviction is 0.76, which translates to a 0.70 increase in self-reported moral conviction over the entire scale of arousal (0.78 to 1.70).

Comparing this effect to that of other covariates in the model, only two variables have a larger substantive impact on moral conviction: political knowledge and age. Each one point increase in political knowledge leads, on average, to a 0.27 point increase in self-reported moral conviction, which represents a 1.08 point increase in self-reported conviction over the entire scale of political knowledge (0 to 4). This finding suggests that people who pay more attention to and know more about politics are more likely to develop links between specific political objects and their sense of right and wrong. The marginal effect of age (0.08) represents a 1.38 point increase in self-reported conviction over the entire scale of age (18 to 36), which suggests that older participants are more likely to moralize politics.

37Full question wordings are included in the appendix for this chapter.
38A full table of model coefficients is included in the appendix for this chapter.
39Political knowledge is assessed by asking participants a four question knowledge battery and summing the correct answers to form one measure of knowledge.
40This result is likely influenced by the age profile of the sample. Only 5 of the 71 participants fall in the “older” age range of 23 to 36, and each of these older participants reported higher levels of conviction.
Figure 3.3: Comparing the Effects of Different Covariates on Moral Conviction

Note: 90% confidence intervals. Data from issue, party, and leader prompts. Model includes random effects for each participant and prompt and a control for the stimulus time. N = 1062. AIC = 2943.74. BIC = 3013.29.

As another key point of comparison, the marginal effect of arousal on self-reported moral conviction is substantively larger than the effect of strength of partisanship. Each one point increase in strength of partisanship leads, on average, to a 0.16 point increase in self-reported moral conviction, which represents a 0.48 point increase in conviction over the entire scale of strength of partisanship (1 to 4). This result indicates that stronger partisans are more likely to view political objects as linked to their moral beliefs, which aligns with previous research findings (see Ryan 2014). Still, partisan extremity plays a weaker role, on average, than physiological arousal in predicting whether participants will report that political objects are moral concerns.
Finally, physiological arousal has a larger substantive effect on self-reported moral conviction than every other covariate in the model, including strength of ideology, need for cognition, and religious commitment. Together, these comparisons provide further evidence to support my expectation that arousal closely correlates with self-reported moral conviction. The results indicate that moral conviction items do tap into moral cognition.

To test my second and third hypotheses that physiological arousal does not significantly predict attitude extremity nor attitude importance, I pool the data from all 71 participants and all 9 issue prompts (N = 638). Then I regress (OLS) attitude extremity, attitude importance, and moral conviction on physiological arousal. I also include fixed effects for each participant and prompt, and I control for the length of the stimulus interval.

Figure 3.4 illustrates the results of this analysis, comparing the effect of arousal on self-reported moral conviction to the effect of arousal on self-reported attitude extremity and importance. Each point illustrates the estimated marginal effect of physiological arousal on either self-reported moral conviction, attitude extremity, or attitude importance. The lines around each point demonstrate the 95% confidence interval for each estimate. If one of these lines crosses 0, which is marked by the horizontal gray line, the marginal effect of physiological arousal in the corresponding model is not statistically significant. Self-reported conviction, importance, and extremity have been standardized on a 0 to 1 scale for ease of comparison. The left-hand line in the plot illustrates that arousal has a significant marginal effect of 0.28 on moral conviction at the 0.05 level. In contrast, the middle and

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41 I only include data from the 9 issue prompts because the attitude importance question is only asked for the 9 political issues. One observation is dropped based on a Cook’s distance score of 0.02, which is well above the cutoff of 0.004 for outliers. I get the same results when this observation is included.

42 Once again, the side of the model to which these variables are assigned is ultimately unimportant. When I run models regressing physiological arousal on these three attitude dimensions, I get matching results, which are included in the appendix for this chapter.

43 Respective Attitude Dimension$_i$ = $\beta_0 + \beta_1$ Physiological Arousal$_i$ + $\beta_2$ Stimulus Time$_i$ + $\beta_{\{3-11\}}$ prompt fixed effects$_i$ + $\beta_{\{12-82\}}$ participant fixed effects$_i$ + $e_i$

44 A full list of coefficients for the moral conviction, attitude extremity, and attitude importance models is included in the appendix for this chapter.
right-hand lines show that the marginal effect of arousal on attitude extremity (0.04) and the marginal effect of arousal on attitude importance (0.12) are not statistically significant.

Figure 3.4: Estimated Effect of Arousal on Different Attitude Dimensions

Note: Each point represents the marginal effect of physiological arousal on a different dependent variable: moral conviction, attitude extremity, and attitude importance. Conviction, extremity, and importance are standardized on a 0–1 scale for ease of comparison, and 95% confidence intervals are constructed based on heteroskedasticity-consistent standard errors. Data comes from issue prompts only. Each model includes fixed effects for each participant and prompt and a control for the stimulus time. N = 638 in each model. Results are shown side by side to illustrate that arousal has a significant effect on moral conviction, but not attitude extremity nor attitude importance.

The results of this analysis demonstrate that self-reported moral conviction is uniquely related to the type of physiological arousal we would expect from a moral way of thinking, while attitude extremity and attitude importance are not. The smaller and insignificant arousal coefficients in the extremity and importance models indicate that even those issues that are linked to strong attitudes trigger weaker physiological reactions than those
issues that are considered to be moral concerns. This finding supports my second and third hypotheses that physiological arousal does not significantly predict attitude extremity nor attitude importance. It also indicates that the moral conviction measure assesses a distinctly moral dimension of attitude intensity.

3.9 Discussion

Studies in psychology and neuroscience show that humans are equipped with a complex suite of mental processes that we experience as morality, which involve distinct patterns of brain activation and affective arousal (see Greene 2009, 2015; Moll, de Oliveira-Souza and Zahn 2008; Van Bavel, FeldmanHall and Mende-Siedlecki 2015). Meanwhile, research in moral and political psychology indicates that people can identify and accurately report their intuitive perception that something is a matter of right and wrong, and this moral conviction predicts a range of political attitudes and actions (see Skitka 2010, 2014; Skitka and Morgan 2014). These two bodies of work have largely existed in isolation, but this study suggests they are actually connected.

The patterns of electrodermal activity (EDA) and self-reported moral conviction observed in this study indicate that heightened levels of physiological arousal triggered by autonomic nervous system activity occur when individuals process issues they later report to be linked to their sense of right and wrong. These same patterns do not occur when people consider political objects that are tied to extreme or important attitudes. Also, physiological arousal remains a significant predictor of self-reported moral conviction even after controlling for other political and cognitive factors that might influence people’s tendency to recognize and report their intuition that an attitude has a moral basis.

Whereas most physiological response studies use vivid images, video clips, or loud sounds to stimulate arousal, this study had participants read a simple statement about a political issue, leader, or party. Still, higher levels of physiological arousal occurred on issues that participants reported were linked to their moral beliefs. Because the stimuli
in this lab experiment were so weak, I expect that arousal is even higher in real-world situations, where individuals are confronted with vivid news stories and heated personal discussions about the political objects they view as moral concerns. As a result, this study likely underestimates the connection between physiological arousal and moral conviction.

Together, this evidence indicates that moral conviction is rooted in moral cognition. The significant positive relationship between conviction scores and physiological arousal pokes holes in the idea that moral conviction is simply an artifact of survey questions or a product of deliberative reasoning. Also, the fact that physiological arousal predicts moral conviction but not other dimensions of attitude strength discredits the notion that moral conviction is just another iteration of a nonmoral dimension of attitude intensity. These results suggest that the moral conviction battery is tapping into physiological responses that occur prior to conscious reasoning and that are triggered by moral thinking, which supports the construct validity of this measure. This finding is important because it lays a foundation for future studies to leverage moral conviction as a distinctly moral attitude dimension and to rely on moral conviction items to assess it.

The purpose of this study is to investigate the connection between moral conviction and the physiological arousal associated with moral thinking, not to determine whether one measure is better than the other. Future research should compare the strength of these indicators by examining whether physiological arousal or self-reported conviction is a better predictor of the behavioral implications we attribute to moral conviction. In the meantime, there is substantial evidence that self-reported indicators and physiological measures independently predict political attitudes and participation (e.g., Gruszczynski et al. 2013; Karl 2015; Smith et al. 2011). Self-reported moral conviction and physiological indicators likely combine to offer a fuller account of the cognitive processes that underlie moralized attitudes, and future work can test this out.

These findings also raise important questions about the current state of public opinion
research. Extant studies typically define and measure an attitude as a person’s evaluation of a given political object in terms of support or opposition, favor or disfavor. As a result, most survey items focus on attitude extremity, or how strong a person’s position is in one direction or the other. Of the attitude dimensions included in this study, however, extremity does the poorest job of capturing participants’ automatic visceral reaction to political objects. This finding suggests that if public opinion researchers want to evaluate people’s deeper, unfiltered response to political objects and messages, they need to include questions that measure other attitude dimensions like moral conviction.

Furthermore, this study highlights untapped potential in applying physiological response indicators to investigate the causes and consequences of political attitudes and behavior. In recent years, the use of physiological measures like skin conductance has increased in political science research. For example, studies have shown that EDA correlates with social policy attitudes and ideology (Dodd et al. 2012; Oxley et al. 2008; Smith et al. 2011), predicts levels of political participation (Gruszczynski et al. 2013; Karl 2015), and predicts different reactions to political ads and debates (Daignault, Soroka and Giasson 2013; Mutz and Reeves 2005; Wang, Morey and Srivastava 2014). The results of this study indicate that physiological measures like skin conductance can also be used to validate survey items, to investigate which aspects of attitude strength best tap into people’s visceral responses, and to examine the physiological roots of political attitudes and behavior.

Moving beyond measurement strategies and moral conviction scores to moral conviction as a construct, this study suggests that moralized attitudes are rooted in psychophysiological processes that stem from moral thinking. This finding poses important implications for how we think about politics, particularly the subjects of conflict and compromise. First, the link between moral conviction and automatic physiological arousal helps explain why moral conviction is divisive to an almost baffling degree. We know that moralized attitudes trigger more hostile opinions, punitive actions, partisan bias, intolerance, discrimination,
and violence than the most strongly held nonmoral attitudes (Garrett 2015; Ryan 2014; Skitka and Morgan 2009, 2014; Skitka et al. 2012; Wright, Cullum and Schwab 2008). Also, moral convictions actually prevent people from compromising to make progress toward a common goal (Ryan 2016; Skitka, Bauman and Sargis 2005).

From a strictly logical, cost-benefit perspective, this behavior makes little sense. Why would people hold opinions and engage in actions that cost themselves and others all because of moral conviction? Still, we see it time and again in politics. Israelis and Palestinians respond to monetary incentives by more violently opposing peace settlements that violate their sacred values (Atran, Axelrod and Davis 2007; Ginges et al. 2007; Ginges and Atran 2013). Environmentalists refuse to endorse incremental policy gains that would benefit their cause but contradict their sacred values (Bazerman, Moore and Gillespie 1999; Tenbrunsel et al. 2009; Tetlock and Oppenheimer 2008). Citizens turn down financial rewards to prevent political opponents from winning ground on issues they view as moral concerns (Ryan 2016).

Such behavior makes more sense in light of the finding that moralized attitudes are tied to mental systems that automatically trigger strong physical and emotional reactions. Moral conviction appears to be integrally linked to psychophysiological processes that are rapid, intuitive, and affectively charged, and these processes likely override logical arguments about positive or negative consequences. As such, the effects of moralized attitudes are more automatic and ingrained than previous work has shown. Trying to persuade people with money or reason with them about the merits of compromise is going to be difficult when regions of the brain that are linked to intuition, anger, disgust, and arousal are firing on all cylinders because they hold strong moral convictions.

3.10 Conclusion

In some ways, the psychophysiological roots of moral conviction pose a threat to democratic ideals about how citizens and political leaders should behave. Listening to opposing
arguments, respecting political rivals, considering different viewpoints, and engaging in political compromise are key tenets of democratic deliberation and policymaking. We know, however, that moralized attitudes lead people to become defensive in discussions, to reject opposing viewpoints, to distance themselves from those they disagree with, and to reject compromise (Ryan 2016; Skitka, Bauman and Sargis 2005; Wright, Cullum and Schwab 2008). This study suggests that morally convicted attitudes stem from complex mental processes that automatically trigger physiological reactions, which make it difficult to consider reason-based arguments. While proponents of deliberative democracy often assume that citizens and their representatives are able to respond to reasoned appeals, the reality is that people who hold strong moral convictions might be viscerally shut-off to such appeals by the way their minds are processing information.

At the same time, however, the deep-seated nature of moral conviction also has positive implications for several democratic norms. Moralized attitudes encourage different forms of political engagement, such as voting and issue activism (Morgan, Skitka and Wisneski 2010; Ryan 2014; Skitka and Bauman 2008; van Zomeren, Postmes and Spears 2012). They also empower individuals with the courage and certitude to stand up for their beliefs when others back down, helping to spark important social movements throughout American history (Chong 2014). Perhaps the automatic physiological arousal triggered by a moral way of thinking underlies some of the fervor to fight for one’s convictions.

A fundamental tension clearly exists between the good and the bad implications of moral conviction for democratic systems, and the results of this study suggest that both implications are more deeply rooted than previous work has shown. Moral thinking triggers strong reflexive reactions that precede conscious thought and deliberative reasoning. As the American political climate becomes increasingly moralized, therefore, heated emotions and visceral responses are more and more likely to characterize political interactions. For good and for bad, the double-edged sword of morality in politics appears here to stay.
4 EMOTION AND THE MORALIZATION OF POLITICS

Abstract: We know that moral conviction is a distinct construct that influences political attitudes and behavior, but we do not know how it develops. I theorize in this paper, therefore, that increasing the emotion that people associate with an issue will promote the type of mental processing that leads people to perceive objects as moral concerns, thereby facilitating the development and strengthening of moral conviction. I test this theory in the context of policy opinions regarding human trafficking, and I find that prompts designed to heighten emotion encourage stronger moral conviction and greater physiological arousal than prompts designed to trigger deliberation. These results support my expectation that emotion influences moral conviction, suggesting an important mechanism by which political actors can facilitate and inhibit attitude moralization. They also shed light on the connection between moral conviction, moral foundations, and moral judgments.

4.1 Introduction

Recent studies in moral and political psychology reveal that citizens sometimes base their opinions on moral conviction, a distinct dimension of attitude intensity that reflects a person’s perception that an object is a matter of right and wrong. Moral convictions differ from personal preferences, group norms, and religious beliefs, and individuals vary a great deal in the extent to which they moralize any given issue (Skitka 2010, 2014). Also, moral conviction strongly influences the political attitudes people hold, the votes they cast, the policies they support, and the political activism they pursue (Skitka and Morgan 2014).
Given the important political consequences of moral conviction, it is hardly surprising that politicians attempt to moralize issues to advance their policy and electoral agendas. Democratic primary candidate Bernie Sanders declares on his campaign website: “The issue of wealth and income inequality is the great moral issue of our time” (Sanders 2016). Republican primary candidate Ted Cruz recently wrote in an op-ed piece that defunding Planned Parenthood is “more than a mere fiscal matter—this is a moral issue” (Cruz 2015). Despite pointed efforts like this to frame issues as moral concerns, it is currently unclear how elite strategies actually influence attitude moralization, the process by which morally convicted attitudes develop and strengthen. This points to the broader puzzle of where moral conviction comes from to begin with, which I investigate in this paper.

Studies continue to reveal new political effects of moral conviction, but they have not yet uncovered what makes a political attitude transform from a nonmoral preference to a moral conviction. Discovering the antecedents that drive the development and strengthening of moral conviction will allow us to better explain why people hold the different moralized attitudes that lead to distinct political outcomes. This, in turn, will help us understand the deeper roots of political opinions and behaviors that are shaped by people’s sense of morality. Determining the mechanisms by which attitude moralization occurs will also shed light on ways that political actors and agents of socialization can promote and inhibit this process.

Building on moral psychology and cognitive neuroscience research, I theorize that heightening the emotion that is linked to an issue will encourage deontological information processing, which centers on rules and duties of right and wrong and underlies perceptions that something is a moral concern. In contrast, stifling the affect that is tied to an issue will facilitate a shift from deontological processing to consequentialist analysis, which focuses on costs and benefits. As a result, messages that increase the emotion people associate with an object should encourage attitude moralization, while messages that decrease the
emotion should inhibit attitude moralization.

To test this theory, I employ a survey experiment focused on policy opinions about human trafficking, which I administer during a physiological response study. The results of this experiment support my theory. A prompt designed to trigger greater emotion about the issue of human trafficking encourages stronger moral conviction and physiological arousal about the issue, while a prompt designed to stifle emotion by engaging individuals in effortful deliberation results in less conviction and arousal about the issue. Somewhat surprisingly, a prompt designed to appeal to moral foundations triggers lower conviction and arousal than the emotion-eliciting prompt. These results indicate that emotion is an important antecedent of moral conviction, they suggest that political actors can help moralize issues that advance their agenda by strategically evoking affect, and they shed light on the connection between moral conviction, moral foundations, and moral judgments.

4.2 Morality and Politics

Traditionally, political scientists have limited the study of morality and politics to certain policy domains. In this conception, some feature of the issues themselves qualifies them for the category of “moral issues,” whether that be that they are salient, noneconomic, nontechnical, connected to values, easy to understand, immune to factual persuasion, portrayed as a matter of morality, related to specific subjects like death and marriage, or linked to religion (Abramowitz 1995; Engeli, Green-Pedersen and Larsen 2012; Ferraiolo 2013; Haider-Markel and Meier 1996; Mooney 2001; Mooney and Lee 1995, 2000; Mooney and Schuldt 2008; Studlar 2001; Tatalovich, Daynes and Lowi 2011). Regardless of the chosen criterion, the main conclusion has been that morality is based on issue classifications. Therefore, subjects like abortion, the death penalty, physician-assisted suicide, and same-sex marriage have been designated moral concerns that are fundamentally different from nonmoral issues like tax policy, education, the minimum wage, and social security.

More recently, however, moral psychologists have pushed back on the idea that morality
is based on an issue classification that scholars can define. Rather, they have suggested
that morality stems from the unique perspective of individual citizens. In this conception,
morality is a psychological response that is triggered when people sense that an object is
a matter of right and wrong, and each individual perceives different objects to be moral
concerns. In fact, many people report that putatively “economic” issues like the minimum
wage or Social Security are actually important matters of right and wrong to them, while
presumably “moral” issues like same-sex marriage and the death penalty are not actually
linked to their sense of right and wrong. As Ryan (2014) reports, more citizens consider
education and health care to be linked to their core moral beliefs and convictions than
citizens who view abortion that way.

Building on work by Linda Skitka and colleagues, this literature focuses on moral con-
viction, which is defined as perceiving a connection to one’s core beliefs about right and
wrong (Bauman and Skitka 2009a; Skitka, Bauman and Sargis 2005). Moral conviction
is a distinct attitude domain that is fundamentally different from other nonmoral domains
like personal preferences and normative conventions. Moralized attitudes, or attitudes held
with strong moral conviction, are unique in that people experience them as objectively true,
universally applicable, inherently motivating, and distinctly independent of external influ-
ence (Skitka 2010, 2014).¹ They also trigger more hostile opinions, punitive actions, and
negative emotions than other strong but nonmoral attitudes (Ryan 2014; Mullen and Skitka
2006; Skitka and Morgan 2009, 2014; Skitka and Wisneski 2011; Skitka et al. 2012; Wright
2012; Wright, Cullum and Schwab 2008).

In addition, moral conviction has profound political effects. It increases political en-
gagement, motivates collective action, influences voting decisions, shapes issue attitudes,
correlates with partisan intensity, leads people to reject compromise, encourages opposi-
tion to dissimilar views, and heightens partisan bias (Ben-Nun Bloom 2013; Garrett 2015;

¹Moralized attitudes are also frequently labeled morally convicted attitudes or moral mandates.
Morgan, Skitka and Wisneski 2010; Ryan 2014, 2016; Skitka, Bauman and Sargis 2005; Skitka and Bauman 2008; van Zomeren, Postmes and Spears 2012). Moralized attitudes also influence perceptions of political legitimacy, opinions about the fairness of legal decisions, and acceptance of political violence (Bauman and Skitka 2009b; Skitka 2002; Skitka, Bauman and Mullen 2008; Skitka, Bauman and Lytle 2009; Skitka and Morgan 2009).

Despite the clear evidence that moral convictions matter to politics, we do not know where they come from. Scholars have identified substantial individual-level variance in the extent to which people moralize any given political topic (Ryan 2014; Skitka, Bauman and Sargis 2005; Wright, Cullum and Schwab 2008). People consider a complex mix of putatively “economic,” “social,” and “moral” issues to be moral concerns, and we do not know why individuals develop the perception that certain political issues are matters of right and wrong, but not others. While studies have shown that moral conviction is not explained by ideology, religiosity, education, age, gender, or personality traits (Morgan, Skitka and Wisneski 2010; Ryan 2014; Skitka, Morgan and Wisneski 2015), there is little evidence to suggest what factors do explain how political attitudes about specific issues become moralized. In the sections that follow, therefore, I present and test the theory that emotion influences attitude moralization, where a morally neutral attitude comes to be held with moral conviction, or an attitude that is perceived to be moderately moral comes to be held with strong moral conviction (Rozin, Markwith and Stoess 1997).

4.3 Emotion, Deliberation, and the Moralization of Politics

I expect that increasing the emotion that people feel about an object will help to trigger the type of deontological, or rule-based, mental processing that underlies perceptions of morality. By eliciting deontological processing, emotions will help signal that objects are matters of right and wrong, thus encouraging the development and strengthening of moral conviction. In contrast, prompting deliberative reasoning about an object will stifle emotion and deontological processing, allowing consequentialist, or cost-benefit, analysis
to proceed instead. Without deontological thinking to activate perceptions of right and wrong, attitude moralization is less likely to occur. Figure 4.1 broadly outlines this theory, which I explain in more detail below.

**Figure 4.1: The Path from Emotion and Deliberation to Attitude Moralization**

Deontological processing is defined by an emphasis on rules and obligations of right and wrong that are indifferent to consequences. In contrast, consequentialist, or utilitarian, processing is defined by an emphasis on the outcome of an action in terms of costs and benefits.\(^2\) The idea that killing an innocent person is intrinsically immoral regardless of how many lives are saved is a deontological principle (Kant 1989), while the notion that killing an innocent person is acceptable if it maximizes the number of lives saved is a consequentialist principle (Bentham 2007; Mill 2001). Deontological thinking is rapid, intuitive, and affective, while consequentialist thinking is slow, deliberate, and rational (Cushman, Young and Greene 2010).\(^3\)

One of the factors that helps determine whether people engage in deontological or consequentialist processing is emotion, and heightening the affect that people experience in a situation helps encourage deontological versus consequentialist thinking. Emotionally

\(^2\)See Greene (2008) for a more detailed discussion of consequentialist versus deontological judgments.

\(^3\)The term “rational” in this chapter denotes using effortful and deliberative reasoning to reach a decision, rather than the normative optimality or sensibility of a decision.
evocative stories, disgusting smells and tastes, and emotive visual and audio depictions all encourage deontological judgments (Amit and Greene 2012; Bartels 2008; Conway and Gawronski 2013; Eskine, Kacinik and Prinz 2011; Schnall et al. 2008; Strohminger, Lewis and Meyer 2011; Wheatley and Haidt 2005). Also, stronger emotional arousal and stress elicit more frequent deontological judgments and less frequent utilitarian decisions (Navarrete et al. 2012; Starcke, Ludwig and Brand 2012; Youssef et al. 2012).

Once deontological processing occurs, it should help signal that something is a matter of right and wrong, so triggering this type of thinking should encourage attitude moralization. Preliminary evidence suggests that deontological processing underlies perceptions of morality. First, fMRI research shows that sacred values, which share similar defining traits as moralized attitudes, trigger areas of the brain that process deontic rules rather than cost-benefit calculations (Berns et al. 2012). Survey experiments provide related evidence that sacred values arise from deontological judgments (Baron and Spranca 1997; Bartels 2008; Tanner 2009). Second, the defining attributes of morally convicted attitudes correspond with distinguishing characteristics of deontological thinking. Moralized attitudes are perceived to be objectively true and universally applicable, they preclude considerations of costs and benefits, they discourage compromise, and they are unmoved by external social pressures (Ryan 2014; Skitka 2010, 2014; Skitka, Washburn and Carsel 2015). Each of these attributes reflects considerations of core rules that are impervious to consequences. Third, moral conviction predicts preferences for rule-based arguments and rejection of cost-benefit appeals, which suggests a connection between moral conviction and deontological processing (Ryan 2015). Finally, as I demonstrate in the previous chapter of this dissertation, self-reported moral conviction correlates with the type of physiological arousal that is associated with thinking about rules of right and wrong instead of consequences.

The final piece of my theory is that certain messages encourage greater affect toward an issue. Emotion regulation research shows that experimental manipulations can help
increase the intensity of emotions that people experience (see Gross 2015, for a review). Messages that encourage individuals to focus on, fully experience, or intensify the emotions that they feel during an experiment facilitate increased emotion and arousal (Driscoll, Tranel and Anderson 2009; Kim and Hamann 2012; Ochsner and Gross 2005).

Linking these ideas together, prompts that trigger greater emotion about an object should also encourage deontological thinking about the object. Deontological thinking should, in turn, signal that the object is a matter of right and wrong, facilitating the perception that an opinion is linked to core moral beliefs and convictions. This process should lead to attitude moralization and higher self-reported moral conviction about the object. Based on this argument, I expect:

**H1: Prompts directing participants to focus on the emotion elicited by an issue will encourage higher levels of moral conviction about the issue.**

In the absence of emotional arousal, however, cost-benefit analysis, rather than deontological thinking, will dominate evaluations. We know that getting people to actively suppress their initial affective reaction and engage in rational deliberation allows them to override prepotent deontological judgments and move toward utilitarian evaluations (Cushman, Young and Greene 2010; Greene et al. 2001, 2004, 2008; Szekely and Miu 2015a). Studies show that people make fewer deontological judgments and more utilitarian decisions about moral dilemmas when they are asked to suppress or reappraise their emotional reaction to the dilemmas (Cameron and Payne 2011; Feinberg et al. 2012; Lee and Gino 2015; Szekely and Miu 2015b). The same result happens when prompts elicit effortful deliberation, rather than intuitive decision making (Bartels 2008; Nichols and Mallon 2006). In addition, video clips that blunt negative affect and frames that increase emotional distance hamper deontological judgments and encourage consequentialist evaluations (Greene et al. 2001; Petrinovich and O’Neill 1996; Petrinovich, O’Neill and Jorgensen 1993; Valdesolo and DeSteno 2006). Finally, damage to brain regions for processing emotion also decreases
the frequency of deontological versus utilitarian judgments (Ciaramelli et al. 2007; Koenigs et al. 2007; Mendez, Anderson and Shapira 2005; Moretto et al. 2010). These findings suggest that stifling emotion and hampering deontological processing should result in more consequentialist thinking.

Objects that are processed consequentially, rather than deontologically, are more likely to be judged based on expected costs and benefits and less likely to be viewed as intrinsic matters of right and wrong. As a result, individuals are less likely to perceive that objects are moral concerns when they are engaged in utilitarian thinking, and attitude moralization is less likely to ensue. For this reason, stifling emotion and allowing consequentialist processing to occur should result in lower moral conviction than triggering emotion.

While certain messages increase the affect that is tied to an object, others decrease the affect that is linked to an object. Emotion regulation research shows that prompts that shift people’s attention from emotion-eliciting features of a situation to dispassionate aspects of the situation, or to a cognitive task, reduce emotional reactions (Gross 2015; Kanske et al. 2010; Ochsner and Gross 2005; Szekely and Miu 2015a). Likewise, instructing individuals to pause and reappraise their emotional response to a situation in nonemotional terms results in decreased levels of affect and arousal (Gross 1998, 2002; Ray et al. 2010).

Based on this evidence, prompts that encourage deliberation should decrease emotion and suppress deontological thinking, moving people toward consequentialist thinking instead. As a result, people should be less likely to perceive that an object is a moral concern, and attitude moralization should be less likely to occur. Consequently, I expect:

_H2: Prompts directing participants to deliberately consider an issue will trigger lower levels of moral conviction about the issue._

As I show in the previous chapter of this dissertation, stronger moral conviction is linked to greater physiological arousal. If prompts that elicit stronger emotions encourage attitude moralization, they should also evoke more arousal. In contrast, if prompts that
promote rational deliberation influence lower levels of moral conviction, they should also trigger less arousal. Based on this argument, I predict:

\[ H3: \text{Prompts directing participants to focus on the emotion elicited by an issue will encourage higher levels of physiological arousal.} \]

\[ H4: \text{Prompts directing participants to deliberately consider an issue will trigger lower levels of physiological arousal.} \]

4.4 Moral Foundations and the Moralization of Politics

Based on this theory, the effects of messages on attitude moralization should be contingent on whether the messages evoke emotion and deontological thinking about an object. I expect that this principle applies to moral foundations frames, even though these frames are often treated as having an automatic effect on moral judgments. In contrast to this deterministic model, I expect that moral foundations frames will only encourage attitude moralization to the extent that they actually elicit greater emotion and deontological processing. As a result, the moralizing effect of moral foundations prompts should hinge on whether they trigger a deontological style of thinking.

A substantial body of work building on research by Jonathan Haidt and colleagues has suggested that individuals have intuitive psychological systems, or foundations, which make certain moral arguments instinctively more or less appealing (Haidt 2012; Haidt and Graham 2007; Haidt and Joseph 2004). According to Moral Foundations Theory, there are five moral foundations (Care/harm, Fairness/cheating, Loyalty/betrayal, Authority/subversion, and Sanctity/degradation), and each individual places greater reliance on some of these foundations over others when making moral judgements.\(^4\) Multiple studies show that you can influence people’s issue attitudes, candidate preferences, and moral

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\(^4\)Prior to 2012, the terms Care/harm, Fairness/reciprocity, Ingroup/loyalty, Authority/respect, and Purity/sanctity were used. For more information on foundation labels, see Graham et al. (2013). Also, Haidt (2012) claims that Liberty/oppression should be considered a sixth moral foundation.
judgments by designing frames with the right language to trigger their moral foundations (e.g., Clifford et al. 2015; Feinberg and Willer 2013, 2015; Iyer et al. 2010; Koleva et al. 2012). As a result, this literature often treats the connection between moral foundations appeals and framing effects as deterministic.

On the one hand, prompts that appeal to moral foundations could serve as a powerful tool to trigger emotion, encourage deontological processing, and strengthen moral conviction. Studies show that appeals to a person’s specific moral foundations elicit moral intuition, “the sudden appearance in consciousness, or at the fringe of consciousness, of an evaluative feeling” (Haidt and Bjorklund 2008, 188). By viscerally triggering affective intuitions, moral foundations language like “harm,” “care,” “fairness,” “justice,” “exploitation,” and “protection” could heighten emotion and encourage deontological processing.

In contrast, just because prompts include words that aim at a particular moral foundation does not mean that they will encourage individuals who are high in that foundation to associate greater emotion with a targeted object. For example, if messages contain terms about “care” and “fairness” but still ask individuals to ponder an issue, they might activate effortful deliberation that stifles any emotion associated with the issue or triggered by the moral foundations terms. In this case, the messages would hamper deontological processing and facilitate consequentialist thinking.

These two scenarios lead to two different predictions about the effect of moral foundations appeals on attitude moralization. In the first scenario, prompts that ask participants to think about moral foundations terms should encourage higher levels of moral conviction, while in the second scenario, they should not. The same breakdown applies to the effect of moral foundations appeals on physiological arousal. In both cases, it depends on whether the moral foundations frames encourage heightened emotion and deontological processing. Rather than stating clear expectations one way or the other, therefore, I will compare the impact of moral foundations appeals on moral conviction and physiological arousal to the
impact of emotion- and deliberation-evoking appeals on the same variables.

4.5 Procedures and Measurement

To test my expectations, I conducted a lab-based experiment designed to capture moral conviction and physiological arousal while participants completed a computer survey about their policy opinions on human trafficking. The experiment took place at a large university from April to May of 2015, and 72 college students participated. Subjects were recruited from an introductory American Government class and given course credit and the chance to win a $25 gift card for completing the study. The sample included variation regarding party identification (56% Democratic, 41% Republican), ideology (54% liberal, 31% conservative, 15% moderate), gender (51% male, 49% female), and race and ethnicity (73% white, 14% black, 13% other). The average age of the sample was 19.9 years.

Participants were randomly assigned to one of three treatment groups, and each group received a different prompt instructing them how to evaluate a political issue before sharing their opinions on it. There were 24 participants in each group. Participants in the emotion condition read a prompt asking them to “pause and allow yourself to feel any emotions that are evoked by the next issue.” This statement was patterned after emotion regulation instructions that encourage people to experience the emotions triggered by a story (Cameron and Payne 2011). It was designed to elicit a stronger emotional response.

Participants in the deliberation condition read a prompt asking them to “pause and think carefully and critically about various nuances of the next issue.” This prompt was patterned after emotion reappraisal instructions that ask participants to think about a video clip “objectively” and “in terms of the technical aspects” of what they observe (Gross 1998, 227). It was designed to moderate emotion by redirecting attention from feelings to thoughts.

Participants in the moral foundations condition read a prompt asking them to “pause and reflect on questions of justice, fairness, and compassion that are raised by the next issue.” To construct this prompt, I used terms from the moral foundations dictionary that
appeal to the Care/harm and Fairness/cheating foundations, the two foundations most likely to be endorsed by both liberals and conservatives (Graham, Haidt and Nosek 2009; Haidt and Graham 2007). While this prompt contains moral foundations terms, it also asks participants to engage in deliberation by reflecting on, considering, and thinking about care and fairness. In this way, the prompt allows me to evaluate whether the moral foundations terms or the instructions to pause and reflect prevail in triggering or stifling emotion. Figure 4.2 shows the full text of the prompt for each treatment condition.

Figure 4.2: Full Text of Each Treatment Condition Prompt

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</thead>
<tbody>
<tr>
<td>(a) Emotion</td>
<td>(b) Deliberation</td>
<td>(c) Moral Foundations</td>
</tr>
<tr>
<td>We would like you to pause and allow yourself to feel any emotions that are evoked by the next issue before you share your opinions on it. Please reflect on any feelings of anger, disgust, sadness, worry, or frustration, and allow these emotions to stir for a few moments. In summary, try to experience the deeper emotions aroused by the issue.</td>
<td>We would like you to pause and think carefully and critically about various nuances of the next issue before you share your opinions on it. Please ponder the deeper economic, social, and cultural forces that drive attitudes toward and involvement with the issue. In summary, try to consider multiple dimensions of the issue like a research scholar would.</td>
<td>We would like you to pause and reflect on questions of justice, fairness, and compassion that are raised by the next issue before you share your opinions on it. Please consider whether people are harmed or exploited, and think about ways they might need rescue, care, or protection. In summary, try to consider how to ensure human dignity and equality.</td>
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After reading the assigned treatment prompt, participants all read the same stimulus prompt about the issue of human trafficking. Figure 4.3 includes the full text of the prompt. I selected the issue of human trafficking because individuals were already likely to hold strong moral conviction on the issue prior to the experiment, making it difficult to move them toward higher or lower conviction. Also, the issue is not divided along party lines.

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5 The prompt was constructed based on information and statements about human trafficking from the UN-ODC (2014) annual “Global Report on Trafficking in Persons,” as well as other news articles and government fact sheets about the issue.
which should lesson the effects of partisan motivated responses to the prompt.

Figure 4.3: Full Text of Human Trafficking Prompt

Human trafficking is the trade of humans, usually for the purpose of sexual slavery, forced labor, or forced prostitution. It is the fastest growing crime in the world and nets traffickers more than $30 billion a year. The United Nations has estimated that nearly 2.5 million people from 127 different countries are being trafficked all around the world. In our own country, an estimated 15,000 people are smuggled into the U.S. each year and sold like modern-day slaves. They are often beaten, starved, and forced to work as prostitutes or to take other grueling jobs with little or no pay. The majority of trafficking that goes on in the U.S. and around the world is sex trafficking, and a disproportionate number of the victims are women and children.

Leaders from countries around the world are calling for more effective strategies to combat human trafficking so that men, women, and children are no longer used as a means to an end anywhere in the world. Some leaders think that countries should adopt more uniform anti-trafficking laws in order to effectively fight human trafficking. Other leaders think that countries should adopt their own anti-trafficking laws in order to effectively fight human trafficking.

Pause for a moment and think about the issue of human trafficking. Then, consider whether you think it would be better for countries to adopt the same or different anti-trafficking laws. Once you have thought about the issue and your own position on it, click >>.

After they read the stimulus prompt, participants answered a series of questions evaluating their opinions on and emotions about human trafficking. I use two of these questions to operationalize moral conviction: 1) “To what extent is your opinion on the issue of human trafficking a reflection of your core moral beliefs and convictions?” and 2) “To what extent is your opinion on the issue of human trafficking deeply connected to your fundamental beliefs about right and wrong?” Response options to both questions range from “not at all” to “very much” on a 5-point scale. Following standard practice, scores on the two questions are averaged together to form one measure of moral conviction (Ryan 2014; Skitka 2014). The average moral conviction score is 4.45 (SD = 0.72).

6 Full question wordings are included in the appendix for this chapter.

7 Cronbach’s $\alpha$ is 0.84. If I use one question or the other to operationalize moral conviction, instead of the
To assess the emotions evoked by the human trafficking prompt, I ask participants how much they feel anger, disgust, sadness, worry, frustration, respect, fear, and dislike when they “think about the issue of human trafficking.” Responses for each emotion range from “not at all” to “very much” on a 5-point scale. On average, participants report feeling a high level of disgust (mean = 4.15, SD = 1.13), sadness (mean = 4.03, SD = 1.21), dislike (mean = 3.94, SD = 1.34), and anger (mean = 3.83, SD = 1.22) when they think about human trafficking, and they express feeling a low level of respect (mean = 1.31, SD = 0.87). I also average responses to the anger, disgust, sadness, worry, frustration, fear, and dislike questions to get one average emotion score (mean = 3.73, SD = 1.11).

While participants completed the survey, I recorded video footage and physiological response data, including electrodermal activity (EDA), or the rate of movement of electricity across the surface of the skin. When people are emotionally aroused, the sympathetic branch of their autonomic nervous causes them to sweat. This increased moisture leads to higher EDA, making EDA a direct and reliable indicator of emotional arousal (Dawson, Schell and Filion 2007; Hubert and de Jong-Meyer 1991; Kreibig 2010). The primary EDA measure used in this study is skin conductance level (SCL), which reflects the general amount of autonomic arousal participants experience (Boucsein 2012). Higher values indicate greater physiological arousal. The previous chapter of this dissertation describes the specific protocol for how I collected and analyzed SCL data.

I operationalize physiological arousal as the ratio of change in SCL, which I calculate by dividing the average SCL obtained while participants read the human trafficking prompt by the average SCL obtained during a 15-second baseline period that preceded each treatment prompt. Because individuals vary dramatically in their resting SCLs, EDA studies

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average score, I still get similar results.

8Skin conductance was recorded using Mindware’s Cardio Mobile Ambulatory Impedance Cardiograph (Model 50-2303-00) and BioLab software (v 3.1.1), sampled at 500 Hz (samples/second).
typically standardize data to reflect within-subject changes in SCL from some baseline period (Dawson, Schell and Filion 2007; Miller and Long 2007). This method provides a more reliable measure of arousal than absolute SCL (Ben-Shakhar 1985).

Physiological arousal scores range from 0.88 to 1.39. Scores over 1 reflect an increase in average SCL relative to the previous baseline period, and scores below 1 indicate a decrease in average SCL. The average arousal score is 1.02 (SD = 0.10), which represents an increase in physiological arousal.9

4.6 Analyses and Results

To test my first two hypotheses about the effects of the emotion prompt and deliberation prompt on moral conviction, I start off by regressing (OLS) moral conviction on dummy variables for both the deliberation and moral foundations conditions, leaving emotion as the omitted condition. This analysis also allows me to compare the effect of the moral foundations prompt. The coefficients for deliberation and moral foundations effectively capture how the average moral conviction reported in each of these conditions differs from the average conviction reported in the emotion condition.

The results of this analysis are illustrated in Figure 4.4.10 The bars in this figure show the average moral conviction reported by participants in each condition. The y-axis shows the range of moral conviction scores. The mean moral conviction score for the emotion condition is 4.73, while the mean moral conviction scores for the deliberation and moral foundations conditions are 4.38 and 4.23 respectively. The lines over the deliberation and moral foundations bars illustrate 90% confidence intervals for the respective differences in moral conviction between the emotion condition and deliberation condition and the emotion condition and moral foundations condition. The first confidence interval illustrates that the emotion prompt evokes significantly higher moral conviction than the deliberation

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9This score is typical of the average EDA response reported in other studies (see Dawson, Schell and Filion 2007; Gruszczynski et al. 2013).

10The full table of model coefficients is included in the appendix for this chapter.
prompt \((p < 0.10)\). This supports my expectations that instructing individuals to focus on their emotions elicits higher moral conviction, while directing them to engage in deliberation results in lower moral conviction. In contrast, there is no significant difference in the amount of moral conviction triggered by the moral foundations and deliberation conditions.

Figure 4.4: Average Moral Conviction for Each Condition

<table>
<thead>
<tr>
<th>Condition</th>
<th>Moral Conviction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotion</td>
<td>5</td>
</tr>
<tr>
<td>Deliberation</td>
<td>4</td>
</tr>
<tr>
<td>Moral Foundations</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: Each bar represents the average moral conviction reported for each condition. Lines above the deliberation and moral foundations conditions illustrate 90% confidence intervals for the respective differences in moral conviction between the emotion condition and deliberation condition and the emotion condition and moral foundations condition. Both of these differences are significant based on a two-tailed test \((p < 0.10)\). \(N = 72\).

To ensure that other factors are not driving results, I also run a model regressing (OLS) moral conviction on dummy variables for the deliberation and moral foundations conditions, along with several demographic, political, and cognitive controls. I include a dummy variable for gender (female), a dummy variable for race/ethnicity (white), and a continuous variable for age (18 to 36). I control for strength of partisanship (4-point scale) and
strength of ideology (4-point scale), which I operationalize by folding 7-point party identification and ideology at their midpoints.\textsuperscript{11} I include a variable for political knowledge (5-point scale), which is operationalized by summing the correct answers to four general political knowledge questions, and an indicator of need for cognition (3-point scale), which is formed by averaging responses to the two standard questions used to assess how much people enjoy effortful thought (Bizer et al. 2000). Finally, I control for religious commitment (6-point scale), the average score on two questions that evaluate how frequently people attend religious services and pray.\textsuperscript{12}

The results of this model are shown in Table 4.1. Since the emotion condition is the omitted category, the negative and significant coefficients on the deliberation and moral foundations conditions show that these conditions elicit significantly less moral conviction than the emotion condition. Now that other demographic factors are controlled for, these differences between conditions are significant at the 0.05 level. All else equal, participants in the deliberation and moral foundations conditions are predicted to report approximately a half point less moral conviction than participants in the emotion condition. This gap in conviction is surprisingly large considering that it is on an issue like human trafficking, where individuals are expected to hold strong moral convictions regardless of the condition in which they are placed. In addition, none of the other control variables in the model have a significant effect on moral conviction, which suggests that the only factor that influences moral conviction is the condition to which participants are randomly assigned.

\textsuperscript{11}I also run models including party identification and ideology (7-point scales) instead of partisan and ideological strength, but these variables have no significant effect and result in lower \( R \)-squared values.

\textsuperscript{12}Full question wordings are included in the appendix for the previous chapter.
Table 4.1: Estimated Effects of Conditions and Controls on Moral Conviction

<table>
<thead>
<tr>
<th></th>
<th>Moral Conviction</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotion (Intercept)</td>
<td>4.87***</td>
<td>(0.93)</td>
</tr>
<tr>
<td>Deliberation</td>
<td>−0.44*</td>
<td>(0.22)</td>
</tr>
<tr>
<td>Moral Foundations</td>
<td>−0.54*</td>
<td>(0.22)</td>
</tr>
<tr>
<td>Female</td>
<td>0.10</td>
<td>(0.19)</td>
</tr>
<tr>
<td>White</td>
<td>0.02</td>
<td>(0.20)</td>
</tr>
<tr>
<td>Age</td>
<td>0.004</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Strength of Partisanship</td>
<td>−0.14</td>
<td>(0.13)</td>
</tr>
<tr>
<td>Strength of Ideology</td>
<td>0.04</td>
<td>(0.13)</td>
</tr>
<tr>
<td>Political Knowledge</td>
<td>0.11</td>
<td>(0.10)</td>
</tr>
<tr>
<td>Need for Cognition</td>
<td>−0.03</td>
<td>(0.17)</td>
</tr>
<tr>
<td>Religious Commitment</td>
<td>−0.04</td>
<td>(0.06)</td>
</tr>
</tbody>
</table>

| R²       | 0.14  |
| N        | 72    |

***p < 0.001, **p < 0.01, *p < 0.05, +p < 0.10, two-tailed test of significance.

These results show that the emotion condition elicits significantly higher moral conviction about the issue of human trafficking than the other two conditions, as H1 predicts. Conversely, the deliberation condition evokes significantly less moral conviction about human trafficking than the emotion condition, as H2 posits. This indicates that triggering emotion encourages attitude moralization to a greater extent than prompting critical thought.

In contrast, there is no significant difference between the marginal effect of the deliberation condition and the marginal effect of the moral foundations condition on moral
conviction. Appeals to the Care/harm and Fairness/cheating foundations do not elicit any higher moral conviction than the deliberation condition, and they trigger significantly less moral conviction than the emotion condition. This tentatively suggests that something about the moral foundations prompt encourages participants to engage in greater effortful deliberation and less deontological processing.

To test my last two hypotheses about the effects of the emotion prompt and deliberation prompt on physiological arousal, I regress (OLS) physiological arousal on dummy variables for the deliberation and moral foundations conditions. Once again, emotion is the omitted condition. This model also allows me to compare how much arousal the moral foundations prompt elicits.

The results of this analysis are illustrated in Figure 4.5. The bars in this figure show the average physiological arousal for each condition, and the y-axis shows the range of SCL change scores. The mean physiological arousal score for the emotion condition is 1.05, while the mean arousal scores for the deliberation and moral foundations conditions are 0.99 and 1.00 respectively. The lines over the deliberation and moral foundations bars illustrate 95% confidence intervals for the respective differences in physiological responsiveness between the emotion condition and deliberation condition and the emotion condition and moral foundations condition. The first confidence interval illustrates that the emotion prompt elicits significantly higher physiological arousal than the deliberation prompt ($p < 0.05$). This supports my expectations that instructing individuals to focus on the emotions triggered by an object evokes greater arousal, while asking them to think about an object elicits less arousal. There is no significant difference in the amount of physiological

---

13 Data from one participant had to be removed from the analysis due to electrodermal nonresponsiveness (see Braithwaite et al. 2013; Figner and Murphy 2011). The participant was in the emotion condition, so $N = 23$ for this condition. Also, because of the wide variance in the time participants spent reading the stimulus prompt (6.4 to 105.7 s), which can influence SCL drift, I check the data for outliers. One observation with a low stimulus time is dropped based on a Cook’s distance score of 0.39, which is well above the cutoff of 0.06 for outliers. The participant was in the deliberation condition, so $N = 23$ for this condition. Even if the non-responder and outlier are included, I still get similar results.

14 The full table of model coefficients is included in the appendix for this chapter.
arousal triggered by the deliberation and moral foundations conditions.

Figure 4.5: Average Arousal for Each Condition

![Figure 4.5](image)

Note: Each bar represents the average physiological arousal for each condition. Lines above the deliberation and moral foundations conditions illustrate 95% confidence intervals for the respective differences in physiological arousal between the emotion condition and deliberation condition and the emotion condition and moral foundations condition. Both of these differences are significant based on a two-tailed test ($p < 0.05$). N = 70.

To ensure that other factors are not driving differences between the conditions, I also run a model regressing (OLS) physiological arousal on dummy variables for the deliberation and moral foundations conditions, along with the same controls described for the moral conviction model. I include variables for gender (female), race/ethnicity (white), age (18 to 36), partisan intensity (4-point scale), ideological intensity (4-point scale), political knowledge (5-point scale), need for cognition (3-point scale), and religious commitment (6-point scale). To verify that differences in physiological arousal are not driven by drifts in SCL due to the amount of time that participants spent reading the human trafficking prompt, I also control for the time participants spent on the prompt (6.4 to 105.7 s).
Table 4.2 presents the results of this analysis. The negative and significant coefficients for the deliberation and moral foundations conditions show that these prompts trigger significantly less physiological arousal than the emotion prompt ($p < 0.05$). All else equal, participants who were told to allow themselves to feel the emotions evoked by an issue respond with a stronger visceral reaction while reading about human trafficking than participants who were told to ponder the issue or to reflect on questions of justice and care.

Table 4.2: Estimated Effects of Conditions and Controls on Arousal

<table>
<thead>
<tr>
<th></th>
<th>Physiological Arousal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotion (Intercept)</td>
<td>0.97***</td>
</tr>
<tr>
<td></td>
<td>(0.12)</td>
</tr>
<tr>
<td>Deliberation</td>
<td>−0.06*</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
</tr>
<tr>
<td>Moral Foundations</td>
<td>−0.05*</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
</tr>
<tr>
<td>Female</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
</tr>
<tr>
<td>White</td>
<td>−0.06*</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
</tr>
<tr>
<td>Age</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>(0.004)</td>
</tr>
<tr>
<td>Strength of Partisanship</td>
<td>−0.02</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
</tr>
<tr>
<td>Strength of Ideology</td>
<td>−0.01</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
</tr>
<tr>
<td>Political Knowledge</td>
<td>0.03**</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
</tr>
<tr>
<td>Need for Cognition</td>
<td>−0.003</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
</tr>
<tr>
<td>Religious Commitment</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
</tr>
<tr>
<td>Stimulus Time</td>
<td>0.0004</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.33</td>
</tr>
<tr>
<td>N</td>
<td>70</td>
</tr>
</tbody>
</table>

$***p < 0.001$, $**p < 0.01$, $*p < 0.05$, $^+p < 0.10$, two-tailed test of significance.
Overall, these results illustrate that the emotion condition evokes significantly more arousal than the deliberation condition, providing support for $H3$. At the same time, the deliberation condition elicits significantly less arousal that the emotion condition, as predicted by $H4$. This indicates that emotion triggers the type of physiological arousal that is associated with moral thinking to a greater extent than deliberation.

In contrast, there is no significant difference between the effects of the moral foundations condition and the deliberation condition on physiological arousal, so appealing to the Care/harm and Fairness/cheating foundations elicits the same subdued physiological response as instructing participants to think. This suggests that the directions to reflect on questions of care and fairness encourage effortful deliberation, which stifles any increase in emotion and deontological processing that might have been elicited by terms targeting moral foundations.

Table 4.2 also shows that two control variables have a significant effect on arousal. Participants with higher levels of political knowledge are predicted to display higher levels of physiological arousal in response to the human trafficking prompt. In contrast, white respondents are predicted to display lower levels of physiological arousal in response to the prompt than non-white respondents.

Finally, since emotion is the key factor that triggers deontological versus consequentialist processing in my theory, it is important to get some sense of whether the different conditions actually elicit different levels of emotion. To do this, I regress each of the self-reported emotion scores on dummy variables for the deliberation and moral foundations conditions, leaving the emotion condition as the omitted category. I also regress the average emotion score on the same dummy variables. To ensure that demographic factors, political variables, and cognitive styles are not driving differences between the conditions, I control for the same variables as in the moral conviction and physiological arousal models: gender (female), race/ethnicity (white), age (18 to 36), strength of partisanship (4-point
scale), strength of ideology (4-point scale), political knowledge (5-point scale), need for cognition (3-point scale), and religious commitment (6-point scale).

Table 4.3 presents the key substantive findings from this analysis. Since the emotion condition is the omitted category, the significant negative coefficients for deliberation show that the deliberation condition elicits significantly less anger, sadness, worry, fear, dislike, and average emotion about the issue of human trafficking than the emotion condition ($p < 0.10$). Overall, these results show that the emotion prompt encourages respondents to experience significantly more negative emotion than the deliberation prompt.

This pattern of increased affect in the emotion condition exemplifies the type of results I expect based on my theory that heightened emotion is part of the underlying process that encourages deontological thinking and attitude moralization. Still, it is important to note that this experimental design does not allow me to determine whether the self-reported affect I find in the emotion condition precedes or follows the increased conviction triggered by that condition. Therefore, this finding of heightened emotion provides, at best, tentative support for the underlying mechanisms driving my theory.

The moral foundations coefficients in Table 4.3 indicate that the moral foundations condition elicits significantly less anger, worry, fear, and average emotion about the issue of human trafficking than the emotion condition ($p < 0.10$). In contrast, there is no significant difference in the level of emotion triggered by the deliberation and moral foundations conditions. This finding indicates that the moral foundations condition fails to activate stronger emotion about human trafficking, an unsurprising result based on the lower levels of conviction and arousal evoked by this condition.

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15 I get similar results for the effects of each treatment condition when I regress the self-reported emotions on dummy variables for the deliberation and moral foundations conditions without any other predictors. Results from these models are included in the appendix for this chapter.

16 The full table of model coefficients is included in the appendix for this chapter.
Table 4.3: Estimated Effects of Conditions on Emotions

<table>
<thead>
<tr>
<th></th>
<th>Anger</th>
<th>Sadness</th>
<th>Worry</th>
<th>Fear</th>
<th>Dislike</th>
<th>Average Emotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotion (Intercept)</td>
<td>0.76</td>
<td>1.43</td>
<td>-1.94</td>
<td>-0.85</td>
<td>3.49+</td>
<td>0.65</td>
</tr>
<tr>
<td></td>
<td>(1.44)</td>
<td>(1.52)</td>
<td>(1.56)</td>
<td>(1.79)</td>
<td>(1.77)</td>
<td>(1.33)</td>
</tr>
<tr>
<td>Deliberation</td>
<td>-0.64+</td>
<td>-0.63+</td>
<td>-0.92*</td>
<td>-1.06*</td>
<td>-0.70+</td>
<td>-0.70</td>
</tr>
<tr>
<td></td>
<td>(0.34)</td>
<td>(0.35)</td>
<td>(0.36)</td>
<td>(0.42)</td>
<td>(0.41)</td>
<td>(0.31)</td>
</tr>
<tr>
<td>Moral Foundations</td>
<td>-0.61+</td>
<td>-0.53</td>
<td>-0.76*</td>
<td>-0.96*</td>
<td>-0.37</td>
<td>-0.54+</td>
</tr>
<tr>
<td></td>
<td>(0.34)</td>
<td>(0.36)</td>
<td>(0.37)</td>
<td>(0.42)</td>
<td>(0.42)</td>
<td>(0.31)</td>
</tr>
<tr>
<td>Controls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>R²</td>
<td>0.29</td>
<td>0.20</td>
<td>0.36</td>
<td>0.35</td>
<td>0.11</td>
<td>0.27</td>
</tr>
<tr>
<td>N</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
<td>72</td>
</tr>
</tbody>
</table>

***p < 0.001, **p < 0.01, *p < 0.05, +p < 0.10, two-tailed test of significance. Treatment effects of the deliberation condition on disgust, frustration, and respect are in the expected direction, but fall just short of statistical significance. These results are included in the appendix for this chapter.

4.7 Discussion

The results presented in this study suggest that heightening the emotion that people associate with an issue facilitates stronger moral conviction about the issue, while stifling the emotion that people associate with an issue leads to weaker moral conviction about the issue. In my experiment, the emotion condition triggered greater moral conviction and physiological arousal about the issue of human trafficking, and the deliberation condition prompted less. The strength of these effects is accentuated by the fact that they occur on an issue where participants are expected to hold strong prior convictions. This is the outcome predicted by my theory that messages that intensify emotion encourage deontological processing, and deontological processing signals that an object is a matter of right and wrong, thus encouraging attitude moralization. In contrast, messages that activate effortful deliberation suppress emotion and prompt a move from deontological processing to utilitarian thinking. This shift to cost-benefit analysis stifles the perception that an object is a moral concern, leading to lower moral conviction. The results of this study pose four key implications and raise several questions for future work.
First, this study provides experimental evidence that emotion is not only a consequence of moral conviction, but an antecedent as well. This finding sheds light on a potential mechanism by which moralized attitudes develop and intensify. Previous research has shown that moral conviction is distinct from party identification, ideology, religious beliefs, attitude importance, attitude centrality, group norms, values, personal preferences, and other potential predictors (Morgan, Skitka and Wisneski 2010; Ryan 2014; Skitka and Bauman 2008; Skitka, Bauman and Sargis 2005; Skitka, Bauman and Lytle 2009). In this way, extant literature provides persuasive evidence that moral conviction is a unique construct, while raising even more questions about what it is and where it comes from. In a move toward addressing these questions, the results of this experiment indicate that emotion plays a key role in influencing individuals to develop moral conviction about some issues, but not others. This finding is important because it suggests that emotion indirectly affects the myriad of political attitudes and actions that stem from moral conviction.

Second, these results provide further support for the theory that moral conviction stems from deontological processing, which Ryan (2015) proposes. Admittedly, this study does not directly test whether prompting or suppressing deontological thinking is part of the causal mechanism that drives the differences in attitude moralization that I find between conditions. It does, however, show that messages that are designed to trigger greater emotion evoke higher levels of moral conviction and physiological arousal. We know that emotion-eliciting messages activate deontological processing (e.g., Conway and Gawronski 2013; Szekely and Miu 2015a), and deontological processing is closely tied to perceptions of morality and physiological arousal (e.g., Bartels 2008; Cushman et al. 2012; Navarrete et al. 2012; Tanner 2009; Tetlock 2003). Putting these pieces together, deontological thinking is the logical link from the emotion-evoking prompt to the heightened levels of conviction and arousal observed in this study. To better test this link, I am currently administering a multi-wave survey that replicates the experiment included in this
study and asks new questions to assess the amount of deontological versus consequentialist thinking that each condition triggers.

Third, this study provides helpful insights for political actors who want to activate or stifle the effects of moral conviction. On the one hand, extant literature shows that moralizing issues, causes, and campaigns can be an effective strategy by which political elites motivate higher levels of political participation, partisan intensity, and collective action in ways that serve their agenda (see Skitka and Morgan 2014). This study indicates that political candidates, party leaders, issue activists, and interest groups can facilitate attitude moralization by intentionally crafting speeches, ads, and website content to heighten the emotions that citizens feel about an issue, cause, or candidate. I find that statements instructing participants to focus on their emotions encourage stronger moral conviction than prompts directing them to deliberately consider an issue, which suggests that political leaders can gain more ground in moralizing attitudes by appealing to emotions than by making logical arguments.

In contrast, there are many situations in politics where it might be advantageous to curb moral conviction, which increases partisan division, prevents peaceful resolutions, evokes punitive emotions, arouses hostile actions, obstructs careful consideration of opposing views, and impedes willingness to compromise (Garrett 2015; Ryan 2014, 2016; Skitka, Bauman and Sargis 2005). This study raises the intriguing possibility that dampening the emotions that are evoked by an issue might help to demoralize the associated issue attitude. The prompt to think carefully and critically about the issue of human trafficking triggers significantly lower moral conviction and physiological arousal than the prompt to focus on emotions evoked by the issue of human trafficking. This finding suggests that political actors can strategically demoralize issues by utilizing emotion regulation strategies, such as distracting attention away from emotions, encouraging effortful deliberation, and prompting the active suppression of feelings. Strategies to moderate conviction by shifting
people from deontological to consequentialist processing styles could prove particularly useful for proponents of deliberative democracy, who want to facilitate discussion about and compromise over reason-based arguments.

Fourth, this study helps integrate work on moral conviction, moral judgments, and moral foundations. Regarding the former two constructs, past research has shown that emotions influence moral judgments, which are short-term reactions to moral dilemmas, but moral psychologists have disagreed whether emotions actually affect moral convictions, which are stable and internalized (e.g., Avramova and Inbar 2013; Skitka 2014; Wisneski and Skitka 2013, N.d.). This study provides experimental evidence that even on an issue like human trafficking, where it is hard to shift moral conviction, prompting participants to attach more emotion to the issue encourages greater moral conviction. In the experiment, participants were instructed to focus on and experience the emotions that were aroused by human trafficking, meaning that any consequent emotions were elicited by and integrally linked to the issue itself, rather than being triggered by some unrelated smell, taste, sound, or story. This study suggests, therefore, that heightening the emotion that individuals integrally associate with political objects does contribute to attitude moralization, while it provides no indication that extraneous affect does the same thing. These results align with previous research showing that incidental emotions triggered by unpleasant smells, gross textures, and vivid memories fail to influence moral conviction (Skitka and Morgan 2014; Wisneski and Skitka 2013), while emotions about specific political candidates do affect moral convictions about the candidates (Brandt, Wisneski and Skitka 2015).

This study also offers insights about the connection between moral foundations and moral conviction. Just because moral foundations language is used in a frame does not mean the frame is going to influence stronger moral conviction. There is no significant increase in the amount of self-reported conviction or physiological arousal evoked by the
moral foundations condition in this experiment. It appears that the instruction for participants to consider, think about, and reflect on various facets of the issue overwhelms any potential emotional reaction to the moral foundations terms about “harm,” “fairness,” “justice,” “care,” “exploitation,” and “protection.” Tentatively supporting this idea, I do find lower self-reported emotion in the moral foundations condition than in the other two conditions, but it is important to note that I cannot determine whether this decreased emotion precedes or follows the lower level of moral conviction influenced by this condition.

While this study does not uncover the underlying factors that drive the limited influence of moral foundations appeals, it does suggest that emotions and deontological processing mediate how moral foundations frames affect moral convictions. Moreover, the results indicate that the connection between moral foundations and moralized attitudes is not automatic, which aligns with previous work I have done showing that partisan motivated reasoning moderates the influence of moral foundations frames (Garrett unpublished data). As a result, future studies should be wary of treating moral foundations terms as automatic triggers of moral intuitions, framing effects, and moral convictions.

Work still remains to be done to address key limitations of this study. First, this experiment does not allow me to separately test the two arguments that heightening emotion encourages attitude moralization and suppressing emotion influences attitude demoralization, because it does not include a control condition. In order to investigate the effect of moral foundations appeals in this small sample study, I include the moral foundations treatment instead of a control treatment. As a result, I cannot determine whether the deliberation condition decreases moral conviction and physiological arousal relative to a control, nor whether the emotion condition increases conviction and arousal relative to a control. This means that I cannot parse out whether the significant difference in moral conviction and arousal between the emotion and deliberation condition is driven by heightened emotion
prompting stronger moral conviction, by stifled emotion leading to weaker moral conviction, or by some combination of the two.

Second, this study only tests one issue. Human trafficking is a nonpartisan issue that admittedly lends itself to an emotional response, which might make it easier to moralize than other political issues. Future work should test whether emotion influences attitude moralization about other economic and social issues in the same way.

Third, I only target Care/harm and Fairness/cheating foundations in the moral foundations prompt. While these are the two foundations most likely to appeal to all the participants in the study, regardless of their party identification or ideology, it is possible that certain participants were actually higher on other moral foundations (Graham, Haidt and Nosek 2009; Haidt and Graham 2007). Future work should replicate this study and include the Moral Foundations Questionnaire to actually quantify what foundations subjects endorse (see Graham et al. 2011). This would allow a test of the alternative explanation that participants in the moral foundations condition showed no increase in moral conviction because they were low on the foundations targeted by the prompt.

Also, appeals to Authority/subversion, Loyalty/betrayal, and Sanctity/degradation might trigger more emotion, deontological processing, and moral conviction than appeals to Care/harm and Fairness/cheating did in this experiment. Yoder and Decety (2014) report that individuals who are sensitive to justice and fairness considerations show lower activity in brain regions for processing emotion when they evaluate behavior, while they show increased activity in brain regions for processing rewards and punishments. Consequently, the Care/harm and Fairness/cheating terms used in this study might have encouraged more utilitarian than deontological processing. Future work should include treatment conditions appealing to different moral foundations to test this idea.

Finally, this study does not test whether certain emotions influence attitude moralization to a greater extent than others. Research has shown that anger, disgust, contempt,
compassion, empathy, and elevation are closely linked to morality (Haidt 2003; Hutcheson and Gross 2011; Rozin et al. 1999). Future work should investigate whether these moral emotions encourage stronger moral conviction than nonmoral emotions.

4.8 Conclusion

In this study, I find that prompting individuals to focus on the emotions triggered by an issue leads to stronger moral conviction, while encouraging them to deliberately and critically think about the substance of an issue influences weaker moral conviction. These results pose negative and positive implications. On the negative side, these findings provide another justification for political elites to make polarizing statements that get people riled up. They offer another rationale for politicians to water down their messages and target citizens’ emotions, rather than making logical arguments and educating citizens about substantive policy concerns. In fact, if political candidates want to leverage the increased turnout, loyalty, and activism that stem from moral conviction, they should appeal to people’s anger, disgust, and fear to help moralize the issues that further their own agenda. As the 2016 presidential primary race illustrates, exploiting emotion can be a powerful campaign strategy, even if it leads to a more hostile and divided political climate (Barbaro, Parker and Martin 2016; Hill 2015; Rhodan 2015).

On the positive side, this study hints at a way to reduce hostility, decrease partisan division, and encourage compromise in our political system by demoralizing attitudes. Getting people to slow down and engage in more deliberative thinking about an issue might help moderate emotion and stifle deontological processing, reducing the perception that a given object is a matter of right and wrong. In this way, emotion regulation strategies of distraction, suppression, and reappraisal might allow individuals to move beyond their initial moral response to consider reasoned arguments and accept strategic compromises.

Furthermore, the results of this study suggest that it is possible to encourage and strengthen moral conviction about important political and cultural concerns by heightening the affect
that individuals associate with these concerns. From a moral development standpoint, par-
ents and educators who are interested in encouraging moral convictions about specific po-
litical issues, general principles of civic engagement, or democratic norms can utilize tools
like stories, illustrations, and activities to increase the affect that children, adolescents, and
young adults associate with certain objects and ideas. As other research has shown, there
are normative costs and benefits of moral conviction, and this study indicates that emotion
is one route to incur both by encouraging attitude moralization.
5 FUTURE RESEARCH ON THE MORALIZATION OF POLITICS

5.1 Introduction

Together, the results presented in this dissertation shed light on how moral conviction develops, why it leads to such distinctive political attitudes and behavior, and how it contributes to a divided political landscape. These findings pose key implications for the specific fields of moral and political psychology, as well as for broader research on mass polarization, political representation, campaigns and elections, political communication, and democratic theory. As I conclude in each empirical chapter, the results also raise important normative questions about the costs and benefits of moral conviction for politics. In addition, the findings presented in this dissertation lay a foundation for future research I plan to pursue, which I discuss in this closing chapter.

5.2 Building on Chapter 2

The first empirical chapter of this dissertation suggests that partisan moral convictions heighten affective polarization above and beyond the influence of partisanship and ideology. An examination of 2012 EGSS survey data reveals that people who tend to moralize politics are more likely to express polarized evaluations of in-party and out-party leaders, even after I control for party identification and ideology. Moving beyond this important finding, we still need to uncover how partisan moral convictions about political parties, party leaders, and party members develop in the first place.

Results from this dissertation show that people develop moralized attitudes about certain party leaders more than others. President Obama is more divisive among morally convicted Democrats and Republicans than Mitt Romney, Newt Gingrich, George W. Bush, Democrats in Congress, and Republicans in Congress. This indicates that some aspect
of being the current president, whether frequent media coverage, national prominence, a well-publicized policy agenda, or current relevance, helps facilitate the connection between party leaders and moral intuitions. Also, I find evidence in both the physiological response study and EGSS study that individuals with higher levels of political knowledge are more likely to moralize political parties and leaders. These results suggest that it takes more than just party cues to link partisan objects to people’s core moral beliefs and convictions. Rather, individuals must build up a mental association between attitude objects, such as politicians and parties, and their underlying sense of right and wrong.

To test this idea, I plan to collaborate on research examining what factors facilitate morally convicted attitudes about political elites. Potential predictors include the clarity of party ties, perceived extremity of ideological positions, and transparency of policy stances on issues that people consider to be moral concerns. To test these ideas, I am currently administering a survey experiment that asks participants about their feelings toward and moral convictions about various political leaders. The experiment provides party labels for the leaders in one condition, ideological cues for the leaders in a second condition, policy positions an issue for the leaders in a third condition, and no information except the leaders’ names in a final control condition. Comparing the effects of each treatment condition to the control will shed light on how associations with a party, ideology, or policy position influence the moral convictions people develop about political leaders.

5.3 Building on Chapter 3

The second empirical chapter shows a significant positive relationship between physiological arousal and self-reported moral conviction about various political issues, leaders, and parties. In contrast, there is no significant relationship between arousal and other dimensions of attitude intensity. These results indicate that moral conviction survey items are tapping into a distinctly moral way of thinking, which helps validate the current moral conviction measure and explain why moralized attitudes are so divisive and unyielding.
This study points to multiple avenues for future projects, and I plan to start by tackling two questions with another physiological response study. First, while this research demonstrates that individuals can correctly identify and then self-report their perception that objects are moral concerns, it does not assess whether some survey items better tap into people’s sense of morality than others. In future work, therefore, I plan to compare whether the current moral conviction battery or new survey items to assess moral conviction correlate more closely with physiological arousal. To do this, I will conduct another lab study where I capture skin conductance while participants complete a computer survey. I will use similar political prompts, moral conviction items, and attitude dimension questions as the ones I used in the physiological response study for this dissertation, but I will also add different questions to assess moral conviction. For example, I will include a likert question that asks, “To what extent is your opinion on this issue connected to your fundamental beliefs about right and wrong or your basic evaluations of costs and benefits?” Response options will range from “strongly connected to beliefs about right and wrong” to “strongly connected to evaluations of costs and benefits” on a 7-point scale. I will use this data to compare how answers to the traditional moral conviction items and new conviction items correlate with skin conductance responses.

Second, this dissertation demonstrates the value of using physiological response indicators to study politics and raises questions about what other self-reported constructs, besides moral conviction, could be assessed using physiological measures. In many ways, different dimensions of attitude intensity are a natural place to start. Psychologists have shown that attitudes are comprised of multiple dimensions, including extremity, intensity, certainty, importance, relevance, accessibility, centrality, consistency, persistence, and several other facets (Krosnick et al. 1993; Petty and Krosnick 1995). Despite these findings, political scientists still typically define and measure attitudes according to one dimension: people’s position on political objects in terms of support or opposition, like or dislike. As I show
in this dissertation, however, other attitude dimensions like moral conviction are just as, if not more, important to assess in public opinion research. Because public opinion surveys are limited by time and space constraints and there are numerous attitude dimensions, it is important to determine which dimensions of attitude intensity are strategic to evaluate on different surveys. In this regard, it would be helpful to know which items best capture respondents’ unfiltered evaluation of political objects.

Measures of autonomic arousal, such as skin conductance, provide an objective assessment of people’s automatic visceral reaction to various stimuli, so they could be leveraged to investigate which survey items best capture people’s underlying feeling about political objects. Building on this idea, I will use my next physiological response study to compare different self-reported attitude dimensions to skin conductance responses. Along with questions to operationalize attitude extremity, attitude importance, and moral conviction, I will also include questions to evaluate the personal relevance, direct experience, certainty, intensity, accessibility, and persistence of attitudes about political issues, leaders, and parties. Such a study design would allow me to investigate which attitude items tap into automatic arousal triggered by political topics, versus post hoc deliberation about the topics.

5.4 Building on Chapter 4

The third empirical chapter sheds light on the puzzle of how political attitudes become moralized to begin with, suggesting that emotions play an important role in prompting the deontological processing that signals to people that objects are matters of fundamental right and wrong. Prompts intended to elicit greater affect encourage stronger moral conviction and more physiological arousal about the issue of human trafficking, while prompts designed to spark deliberation result in weaker conviction and less arousal. Despite this important finding, there are several places for improvement in the current study design, which I plan to adjust in future work.

First, I only test one issue in this study. While human trafficking is a hard test for
my theory because participants were likely to hold strong moral convictions on the issue before the experiment began, it is important to verify that the pattern of results I find for trafficking hold for other political issues. For example, economic issues might not lend themselves to emotional arousal like human trafficking does. Alternatively, partisan issues might trigger partisan motivated reasoning in a way that human trafficking does not, which might moderate the treatment effects.

Second, I do not examine how shifts in moral conviction due to the experimental treatment persist over time. Because moral conviction is relatively stable and internalized, it is important to investigate whether the increased levels of moral conviction that are triggered by the emotion condition persist over time. Single-shot reactions that fade after an experiment is finished might reflect moral judgments more than they do the development and strengthening of moral conviction.

Third, this study does not include a control condition. As a result, I cannot determine whether the emotion condition, the deliberation condition, or some combination of the two is driving the differences in moral conviction and physiological arousal that result from the two conditions. I can only conclude that the emotion condition evokes relatively greater moral conviction and physiological arousal than the deliberation condition.

Fourth, the results of this study confirm my hypotheses and support my theory about the ways emotion and deliberation influence attitude moralization, but they do not provide direct evidence about the roles that deontological and consequentialist processing play in driving attitude moralization. I expect that deontological processing is the key link between heightened emotion and the perception that an object is a matter of right and wrong, but I cannot test this idea with the current experiment. Likewise, I predict that effortful deliberation results in lower self-reported conviction because it stifles deontological thinking and encourages utilitarian thinking, but I cannot verify this story.

To address these concerns, I am currently administering a multi-wave panel survey to
a student sample. The three-wave survey allows me to test how different levels of emotion triggered by three experimental conditions influence attitude moralization on the minimum wage, same-sex marriage, illegal immigration, fracking, free college tuition, and human trafficking. By looking at this combination of issues, I can test how variance in partisan versus nonpartisan, economic versus social, and relevant versus nonrelevant issues influences the effects of emotion and deliberation on attitude moralization. Also, the second and third waves of the survey will be administered two weeks after the first, which allows me to track how shifts in moral conviction persist after the experiment is over. In addition, this survey experiment includes a control condition. This will allow me to determine whether any differences in moral conviction between the emotion condition and deliberation condition are driven by heightened emotion triggering stronger moral conviction, by stifled emotion leading to weaker moral conviction, or by some combination of the two.

In order to better test the underlying mental processing component of my theory, I include survey items to assess the amount of deontological versus consequentialist thinking that respondents engage in when they consider each issue. One item asks respondents to imagine how willing they would be to shift their vote on an issue for a fictional payment. Another item asks respondents how much money someone would have to pay them for them to switch their position on an issue (Graham, Haidt and Nosek 2009). Studies show that people are unreceptive to monetary incentives and cost-benefit arguments when they are engaged in deontological processing about sacred values (Atran and Ginges 2015; Dehghani et al. 2010; Ginges et al. 2007; Ginges and Atran 2013; Tanner 2009). Therefore, if the emotion condition triggers more deontological processing than the deliberation condition, as I expect, then respondents in the emotion condition should be less willing to accept payments to switch their position than respondents in the deliberation condition. I also plan to administer this same study to workers on Amazon’s Mechanical Turk in order to verify that I get similar results from a non-student sample.
This dissertation indicates that emotion contributes to attitude moralization, but it does not completely solve the puzzle of why individuals come to view some political objects as moral concerns, but not others. In many ways, I expect that socializing factors like close relationships and life experiences play a more important role in shaping the development of specific moral convictions than single-shot messages do. Appeals to emotions are a strategic mechanism by which agents of socialization can inculcate the perception that certain objects are matters of right and wrong, but it still takes people and events to ultimately define what aspects of politics individuals come to view as moral concerns.

Building on insights from moral development literature, I theorize that close social relationships in childhood and adolescence influence the development of specific moral convictions and the general propensity to moralize. I also expect that certain moral convictions emerge in response to emotionally salient experiences faced and close friendships formed during young adulthood. How much the latter occurs, however, will depend on the extent to which moralized attitudes develop earlier in life. This theory rests on the premise that relationships, reinforcement, and emotions fine-tune the mental systems that underlie perceptions of morality and help connect specific political objects to these mental systems.

To flesh out this theory, I expect that parental figures play an important role in influencing their children’s specific moral convictions and general propensity to moralize. Because parental examples, conversations, and correction teach children how to process distinct moral messages, expose them to different moral emotions, and habituate moral sensitivity and expertise, I expect that parent-child interactions help calibrate and strengthen children’s moral faculties. As a result, young adults should be more likely to display a high propensity to moralize if their parents express a high propensity to moralize. Also, children see and hear their parents talk about different political issues in terms of right and wrong, meaning that young adults should be more likely to hold moralized attitudes on those issues that their parents prioritized as moral concerns when they were growing up.
In addition, I expect that discussions in close relationships and reinforcement of the same moral messages encourage stronger and more stable moral convictions. First, children who are emotionally close to their parents, trust and respect their parents, discuss issues with their parents, and look to their parents for advice should be more likely to internalize their parents’ moral perspective on various issues. Young adults who report having this type of relationship with their parents should be more likely to share their parents’ moral convictions and less likely to shift these convictions in college.

Second, when children receive the same signals over and over again that certain issues are matters of right and wrong, this repetition should strengthen their intuitive perception that the issues are moral mandates. Consequently, young adults whose parents share the same moral convictions should develop stronger convictions, which are less likely to shift in college. Also, if other family members, school environments, or religious communities reinforce the same moral convictions, this reinforcement should encourage stronger and more stable convictions.

Beyond socialization in early life and adolescence, I expect that relationships and emotionally salient experiences in college influence the development of moralized attitudes. In particular, if young adults do not hold strong moral convictions prior to the start of college, I expect them to be more open to developing such convictions during college. I also predict that young adults’ friends, classes, and extracurricular activities play an important role in facilitating attitude moralization and demoralization while they are in college.

To test this theory, I am administering a novel two-wave panel survey to incoming college students and their parents. I have already gathered data from incoming first-year students at eight public colleges in the Southeast and one private college in the Midwest. On the first wave of the survey, I ask questions to assess students’ relationships with their parents, as well as their general family dynamics, friendships, school environment, and religious background. I also measure their moral convictions and personal opinions about
several political issues, leaders, and parties, and I ask them about their parents’ convictions and opinions regarding the same political objects. In addition, I have gathered data from students’ parents to corroborate the students’ assessments of their parents’ moral convictions and political opinions.

I will administer the second wave of the panel survey to students in April 2016. This instrument will ask students about their moral convictions and personal opinions on the same political issues, leaders, and parties as those included on the first wave of the survey. I can compare responses between the two survey waves to assess shifts in moral convictions and political attitudes over time. In order to capture peer influence, the second survey instrument also asks students to report their perceptions of their friends’ opinions about the same political issues, leaders, and parties that they were asked about. It also asks them questions to operationalize family dynamics, religious groups, classes, professors, campus organizations, and events that might have influenced the development, strengthening, or weakening of their convictions during the first year of college.

The results of this study will provide novel evidence about how close social relationships and salient experiences in early life, adolescence, and young adulthood influence the development of specific moral convictions. It will also shed light on what factors influence the stability of moralized attitudes over time. Such knowledge will be useful for political scientists, as well as for scholars in other academic fields like moral psychology, sociology, moral learning and development, and education.
### A Appendix to Chapter 2

Full Model Results

#### Table A.1: Affect toward Party Leaders

<table>
<thead>
<tr>
<th></th>
<th>Obama</th>
<th>Romney</th>
<th>Gingrich</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>97.45***</td>
<td>12.54*</td>
<td>5.17</td>
</tr>
<tr>
<td></td>
<td>(7.50)</td>
<td>(5.79)</td>
<td>(4.98)</td>
</tr>
<tr>
<td>Republican</td>
<td>11.75⁺</td>
<td>-3.82</td>
<td>2.77</td>
</tr>
<tr>
<td></td>
<td>(6.72)</td>
<td>(5.58)</td>
<td>(5.50)</td>
</tr>
<tr>
<td>Propensity to Moralize</td>
<td>2.57⁺</td>
<td>-0.79</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>(1.33)</td>
<td>(1.11)</td>
<td>(0.93)</td>
</tr>
<tr>
<td>White</td>
<td>-13.64***</td>
<td>3.87⁺</td>
<td>0.80</td>
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<td></td>
<td>(2.74)</td>
<td>(2.29)</td>
<td>(2.23)</td>
</tr>
<tr>
<td>Female</td>
<td>-1.09</td>
<td>1.15</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>(1.96)</td>
<td>(1.71)</td>
<td>(1.67)</td>
</tr>
<tr>
<td>Ideology</td>
<td>-3.71***</td>
<td>2.65**</td>
<td>3.73***</td>
</tr>
<tr>
<td></td>
<td>(0.89)</td>
<td>(0.83)</td>
<td>(0.75)</td>
</tr>
<tr>
<td>Evangelical</td>
<td>-2.17</td>
<td>1.78</td>
<td>6.45**</td>
</tr>
<tr>
<td></td>
<td>(2.19)</td>
<td>(1.99)</td>
<td>(1.96)</td>
</tr>
<tr>
<td>Income</td>
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<td>0.32</td>
<td>-0.27</td>
</tr>
<tr>
<td></td>
<td>(0.25)</td>
<td>(0.20)</td>
<td>(0.19)</td>
</tr>
<tr>
<td>Party Identification</td>
<td>-8.17***</td>
<td>4.18***</td>
<td>3.57***</td>
</tr>
<tr>
<td></td>
<td>(1.11)</td>
<td>(1.06)</td>
<td>(1.07)</td>
</tr>
<tr>
<td>Republican * Propensity to Moralize</td>
<td>-5.50**</td>
<td>-0.27</td>
<td>-1.06</td>
</tr>
<tr>
<td></td>
<td>(1.77)</td>
<td>(1.72)</td>
<td>(1.53)</td>
</tr>
</tbody>
</table>

| R²                    | 0.52      | 0.18      | 0.24     |
| N                     | 1212      | 1203      | 1203     |

***p < 0.001, **p < 0.01, *p < 0.05, +p < 0.10, two-tailed test of significance.
All data are weighted.
Table A.2: Affect toward Romney Based on Political Knowledge

<table>
<thead>
<tr>
<th></th>
<th>High Knowledge</th>
<th>Low Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>17.58*</td>
<td>8.96</td>
</tr>
<tr>
<td></td>
<td>(8.53)</td>
<td>(8.05)</td>
</tr>
<tr>
<td>Republican</td>
<td>−5.96</td>
<td>2.49</td>
</tr>
<tr>
<td></td>
<td>(8.01)</td>
<td>(7.41)</td>
</tr>
<tr>
<td>Propensity to Moralize</td>
<td>−2.92+</td>
<td>1.68</td>
</tr>
<tr>
<td></td>
<td>(1.50)</td>
<td>(1.47)</td>
</tr>
<tr>
<td>White</td>
<td>0.68</td>
<td>7.38*</td>
</tr>
<tr>
<td></td>
<td>(3.42)</td>
<td>(3.02)</td>
</tr>
<tr>
<td>Female</td>
<td>0.92</td>
<td>1.45</td>
</tr>
<tr>
<td></td>
<td>(2.23)</td>
<td>(2.47)</td>
</tr>
<tr>
<td>Ideology</td>
<td>4.08***</td>
<td>1.11</td>
</tr>
<tr>
<td></td>
<td>(1.11)</td>
<td>(1.13)</td>
</tr>
<tr>
<td>Evangelical</td>
<td>0.19</td>
<td>2.18</td>
</tr>
<tr>
<td></td>
<td>(2.90)</td>
<td>(2.71)</td>
</tr>
<tr>
<td>Income</td>
<td>0.29</td>
<td>0.35</td>
</tr>
<tr>
<td></td>
<td>(0.29)</td>
<td>(0.29)</td>
</tr>
<tr>
<td>Party Identification</td>
<td>2.28+</td>
<td>5.17***</td>
</tr>
<tr>
<td></td>
<td>(1.38)</td>
<td>(1.55)</td>
</tr>
<tr>
<td>Republican * Propensity to Moralize</td>
<td>3.67+</td>
<td>−4.41+</td>
</tr>
<tr>
<td></td>
<td>(2.15)</td>
<td>(2.42)</td>
</tr>
</tbody>
</table>

R² | 0.26 | 0.16 |

N  | 627  | 576  |

***p < 0.001, **p < 0.01, *p < 0.05, +p < 0.10, two-tailed test of significance. All data are weighted.
Table A.3: Affect toward Gingrich Based on Political Knowledge

<table>
<thead>
<tr>
<th></th>
<th>High Knowledge</th>
<th>Low Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>0.90</td>
<td>8.02</td>
</tr>
<tr>
<td></td>
<td>(7.03)</td>
<td>(6.89)</td>
</tr>
<tr>
<td>Republican</td>
<td>-4.28</td>
<td>13.95(^+)</td>
</tr>
<tr>
<td></td>
<td>(7.63)</td>
<td>(7.72)</td>
</tr>
<tr>
<td>Propensity to Moralize</td>
<td>-0.94</td>
<td>1.65</td>
</tr>
<tr>
<td></td>
<td>(1.20)</td>
<td>(1.34)</td>
</tr>
<tr>
<td>White</td>
<td>1.38</td>
<td>2.46</td>
</tr>
<tr>
<td></td>
<td>(3.16)</td>
<td>(2.94)</td>
</tr>
<tr>
<td>Female</td>
<td>1.35</td>
<td>0.42</td>
</tr>
<tr>
<td></td>
<td>(2.13)</td>
<td>(2.43)</td>
</tr>
<tr>
<td>Ideology</td>
<td>4.76(^{***})</td>
<td>2.36(^*)</td>
</tr>
<tr>
<td></td>
<td>(0.98)</td>
<td>(1.05)</td>
</tr>
<tr>
<td>Evangelical</td>
<td>5.81(^*)</td>
<td>6.85(^*)</td>
</tr>
<tr>
<td></td>
<td>(2.73)</td>
<td>(2.66)</td>
</tr>
<tr>
<td>Income</td>
<td>-0.32</td>
<td>-0.12</td>
</tr>
<tr>
<td></td>
<td>(0.28)</td>
<td>(0.26)</td>
</tr>
<tr>
<td>Party Identification</td>
<td>3.30(^*)</td>
<td>3.14(^*)</td>
</tr>
<tr>
<td></td>
<td>(1.29)</td>
<td>(1.57)</td>
</tr>
<tr>
<td>Republican * Propensity to Moralize</td>
<td>3.09</td>
<td>-5.43(^*)</td>
</tr>
<tr>
<td></td>
<td>(1.90)</td>
<td>(2.15)</td>
</tr>
</tbody>
</table>

\(R^2\) 0.38 0.15  
N 627 576

\(^{***}p < 0.001, \(^{**}p < 0.01, \(^{*}p < 0.05, \(^{+}p < 0.10, \)two-tailed test of significance. All data are weighted.
Table A.4: Affect toward Obama Based on Political Knowledge

<table>
<thead>
<tr>
<th></th>
<th>High Knowledge</th>
<th>Low Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
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<td>92.86***</td>
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<tr>
<td></td>
<td>(7.94)</td>
<td>(11.42)</td>
</tr>
<tr>
<td>Republican</td>
<td>−6.25</td>
<td>24.17*</td>
</tr>
<tr>
<td></td>
<td>(7.77)</td>
<td>(10.33)</td>
</tr>
<tr>
<td>Propensity to Moralize</td>
<td>2.11</td>
<td>2.16</td>
</tr>
<tr>
<td></td>
<td>(1.35)</td>
<td>(2.12)</td>
</tr>
<tr>
<td>White</td>
<td>−14.59***</td>
<td>−15.23***</td>
</tr>
<tr>
<td></td>
<td>(3.34)</td>
<td>(4.04)</td>
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<tr>
<td>Female</td>
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<td></td>
<td>(2.16)</td>
<td>(3.03)</td>
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<tr>
<td>Ideology</td>
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<td>−2.34*</td>
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<td>(1.29)</td>
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<td>Evangelical</td>
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<td>−0.76</td>
</tr>
<tr>
<td></td>
<td>(2.72)</td>
<td>(3.10)</td>
</tr>
<tr>
<td>Income</td>
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<td>0.20</td>
</tr>
<tr>
<td></td>
<td>(0.34)</td>
<td>(0.36)</td>
</tr>
<tr>
<td>Party Identification</td>
<td>−6.58***</td>
<td>−8.82***</td>
</tr>
<tr>
<td></td>
<td>(1.28)</td>
<td>(1.73)</td>
</tr>
<tr>
<td>Republican * Propensity to Moralize</td>
<td>−3.20</td>
<td>−7.16*</td>
</tr>
<tr>
<td></td>
<td>(2.04)</td>
<td>(2.77)</td>
</tr>
</tbody>
</table>

R²  | 0.66 | 0.44 |
N   | 629  | 583  |

***p < 0.001, **p < 0.01, *p < 0.05, +p < 0.10, two-tailed test of significance. All data are weighted.
Table A.5: Job Approval of Party Leaders

<table>
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<th>Obama Job Approval</th>
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<tbody>
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<td>(Intercept)</td>
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<tr>
<td></td>
<td>(0.42)</td>
</tr>
<tr>
<td>Republican</td>
<td>0.65+</td>
</tr>
<tr>
<td></td>
<td>(0.40)</td>
</tr>
<tr>
<td>Propensity to Moralize</td>
<td>0.15+</td>
</tr>
<tr>
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</tr>
<tr>
<td>White</td>
<td>−0.89***</td>
</tr>
<tr>
<td></td>
<td>(0.17)</td>
</tr>
<tr>
<td>Female</td>
<td>−0.02</td>
</tr>
<tr>
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<td>(0.12)</td>
</tr>
<tr>
<td>Ideology</td>
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</tr>
<tr>
<td></td>
<td>(0.05)</td>
</tr>
<tr>
<td>Evangelical</td>
<td>−0.13</td>
</tr>
<tr>
<td></td>
<td>(0.13)</td>
</tr>
<tr>
<td>Income</td>
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<td>(0.02)</td>
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<tr>
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<td>(0.07)</td>
</tr>
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<td>Republican * Propensity to Moralize</td>
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<td></td>
<td>(0.11)</td>
</tr>
</tbody>
</table>

| R²                       | 0.50               |
| N                        | 1212               |

***p < 0.001, **p < 0.01, *p < 0.05, †p < 0.10, two-tailed test of significance. All data are weighted.
Table A.6: Blame Attributed to Party Leaders

<table>
<thead>
<tr>
<th></th>
<th>Obama</th>
<th>Bush</th>
<th>Democrats</th>
<th>Republicans</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>1.33***</td>
<td>4.78***</td>
<td>1.95***</td>
<td>4.12***</td>
</tr>
<tr>
<td></td>
<td>(0.29)</td>
<td>(0.26)</td>
<td>(0.28)</td>
<td>(0.26)</td>
</tr>
<tr>
<td>Republican</td>
<td>-0.37</td>
<td>0.34</td>
<td>0.01</td>
<td>0.55*</td>
</tr>
<tr>
<td></td>
<td>(0.30)</td>
<td>(0.29)</td>
<td>(0.26)</td>
<td>(0.28)</td>
</tr>
<tr>
<td>Propensity to Moralize</td>
<td>-0.08</td>
<td>0.07</td>
<td>0.03</td>
<td>0.12*</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
</tr>
<tr>
<td>White</td>
<td>0.45***</td>
<td>-0.12</td>
<td>0.29**</td>
<td>0.10</td>
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<tr>
<td></td>
<td>(0.12)</td>
<td>(0.11)</td>
<td>(0.10)</td>
<td>(0.11)</td>
</tr>
<tr>
<td>Female</td>
<td>-0.05</td>
<td>-0.18*</td>
<td>-0.24**</td>
<td>-0.19*</td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td>(0.08)</td>
<td>(0.08)</td>
<td>(0.08)</td>
</tr>
<tr>
<td>Ideology</td>
<td>0.21***</td>
<td>-0.07*</td>
<td>0.11**</td>
<td>-0.07*</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
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<tr>
<td>Evangelical</td>
<td>0.17</td>
<td>-0.09</td>
<td>0.06</td>
<td>0.03</td>
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<tr>
<td></td>
<td>(0.11)</td>
<td>(0.10)</td>
<td>(0.09)</td>
<td>(0.10)</td>
</tr>
<tr>
<td>Income</td>
<td>-0.02</td>
<td>0.00</td>
<td>0.01</td>
<td>0.01</td>
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<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Party Identification</td>
<td>0.18**</td>
<td>-0.28***</td>
<td>0.17***</td>
<td>-0.23***</td>
</tr>
<tr>
<td></td>
<td>(0.06)</td>
<td>(0.05)</td>
<td>(0.05)</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Republican *</td>
<td>0.16†</td>
<td>-0.09</td>
<td>-0.03</td>
<td>-0.13†</td>
</tr>
<tr>
<td>Propensity to Moralize</td>
<td>(0.08)</td>
<td>(0.08)</td>
<td>(0.08)</td>
<td>(0.08)</td>
</tr>
<tr>
<td>R²</td>
<td>0.30</td>
<td>0.26</td>
<td>0.20</td>
<td>0.17</td>
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<tr>
<td>N</td>
<td>1207</td>
<td>1208</td>
<td>1208</td>
<td>1208</td>
</tr>
</tbody>
</table>

***p < 0.001, **p < 0.01, *p < 0.05, †p < 0.10, two-tailed test of significance.
All data are weighted.
Evaluations of Government and Society Study (EGSS) Question Wordings

Full documentation is available online at http://www.electionstudies.org/. The variables used in this study are all from EGSS Wave 4.

Candidate Feeling Thermometers

Runs from 0 (low warmth/feels unfavorable) to 100 (high warmth/feels favorable).

- Please look at the graphic below. We’d like to get your feelings toward some of our political leaders and other people who are in the news these days. We’ll show the name of a person and we’d like you to rate that person using something we call the feeling thermometer. Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward the person. Ratings between 0 degrees and 50 degrees mean that you don’t feel favorable toward the person and that you don’t care too much for that person. You would rate the person at the 50 degree mark if you don’t feel particularly warm or cold toward the person. If we come to a person whose name you don’t recognize, you don’t need to rate that person. Just click Next and we’ll move on to the next one.

  - How would you rate Barack Obama?
  - How would you rate Mitt Romney?
  - How would you rate Newt Gingrich?

* Numeric entry, 0-100

Presidential Job Approval

The following two questions are used to operationalize presidential job approval. Runs from 1 (disapprove extremely strongly) to 7 (approve extremely strongly).

- Do you approve, disapprove, or neither approve nor disapprove of the way Barack Obama is handling his job as president?
  - Approve
  - Disapprove
  - Neither approve nor disapprove

- Do you [approve/disapprove] extremely strongly, moderately strongly, or slightly strongly?
  - Extremely strongly
  - Moderately strongly
  - Slightly strongly
Blame Attribution for the Economic Recession

Runs from 1 (not at all) to 5 (a great deal).

- How much is each of the following people or groups to blame for the poor economic conditions of the past few years?
  - President Obama
  - President Bush
  - Democrats in U.S. Congress
  - Republican in U.S. Congress
    * A great deal
    * A lot
    * A moderate amount
    * A little
    * Not at all

Propensity to Moralize Scale

Scores on the three attitude moralization questions are averaged together to operationalize propensity to moralize. Runs from 0 (low propensity to moralize) to 5 (high propensity to moralize).

Most/Least Important Issue

- Which of these do you think is the most important issue facing the United States today?
- Whether you are for or against any particular policy, which of these do you think is the least important issue facing the United States today?
  - The budget deficit; the war in Afghanistan; Education; Health care; Illegal immigration; The economic recession; Abortion; Same-sex marriage; The environment; Unemployment

Attitude Moralization

- How much are your opinions about [most important issue] based on your moral values?
- How much are your opinions about [least important issue] based on your moral values?
- How much are your opinions about [random issue] based on your moral values?
Party Identification

7-Point Party Identification The following three questions are used to operationalize party identification. Runs from 1 (strong Democrat) to 7 (strong Republican).

- Generally speaking, do you usually think of yourself as a Republican, a Democrat, an independent, or what?
  - Democrat
  - Republican
  - Independent
  - Something else

- Would you call yourself a strong [Democrat/Republican] or a not very strong [Democrat/Republican]?
  - Strong
  - Not very strong

- Do you think of yourself as closer to the Republican Party or to the Democratic Party?
  - Closer to the Democratic Party
  - Closer to the Republican Party
  - Neither

Dichotomous Party Identification Answers to the three party identification questions are used to construct a dichotomous measure of party identification. Respondents who selected “Strong Democrat,” “Not very strong Democrat,” and “Closer to the Democratic Party” are coded 0 (Democrats), and respondents who selected “Strong Republican,” “Not very strong Republican,” and “Closer to the Republican Party” are coded 1 (Republicans). Independents and “other” party identifiers are excluded from the analysis.

Ideology

Runs from 1 (very liberal) to 7 (very conservative).
• When it comes to politics, would you describe yourself, and these groups, as liberal, conservative, or neither liberal nor conservative?
  
  – You
    ∗ Very liberal
    ∗ Somewhat liberal
    ∗ Closer to liberals
    ∗ Neither liberal nor conservative
    ∗ Closer to conservatives
    ∗ Somewhat conservative
    ∗ Very conservative

**Evangelical Protestant**

After several questions to determine religious affiliation, respondents are asked the following question to operationalize evangelical Protestants. Runs from 0 (not an evangelical Protestant) to 1 (evangelical Protestant).

• Would you describe yourself as a born-again or evangelical Christian?
  
  – Yes
  – No

**Gender**

Runs from 0 (male) to 1 (female).

• Please enter whether you are male or female in the space below.
  
  – Male
  – Female

**Race/Ethnicity**

Based on a series of questions, the EGSS classifies respondents into one of five racial and ethnic categories. These categories are used to construct a dichotomous measure of race/ethnicity. Respondents who are classified as “Black, Non-Hispanic,” “Other, Non-Hispanic,” “Hispanic,” or “2+ Races, Non-Hispanic,” are coded 0 (non-white), and respondents who are classified as “White, Non-Hispanic” are coded 1 (white).

**Income**

The following three questions are used to operationalize income. Runs from 1 (Less than $5,000) to 19 ($175,000 or more).
The next question is about the total income of YOUR HOUSEHOLD for the PAST 12 MONTHS. Please include your income PLUS the income of all members living in your household (including cohabiting partners and armed forces members living at home). Please count income BEFORE TAXES and from all sources (such as wages, salaries, tips, net income from a business, interest, dividends, child support, alimony, and Social Security, public assistance, pensions, or retirement benefits). Was your total HOUSEHOLD income in the past 12 months ...

- Below $35,000
- $35,000 or more
- Don’t Know

We would like to get a better estimate of your total HOUSEHOLD income in the past 12 months before taxes. Was it ... (asked of those who selected “Below $35,000”)

- Less than $5,000
- $5,000 to $7,499
- $7,500 to $9,999
- $10,000 to $12,499
- $12,500 to $14,999
- $15,000 to $19,999
- $20,000 to $24,999
- $25,000 to $29,999
- $30,000 to $34,999

We would like to get a better estimate of your total HOUSEHOLD income in the past 12 months before taxes. Was it ... (asked of those who selected “$35,000 or more”)

- $35,000 to $39,999
- $40,000 to $49,999
- $50,000 to $59,999
- $60,000 to $74,999
- $75,000 to $84,999
- $85,000 to $99,999
- $100,000 to $124,999
- $125,000 to $149,999
- $150,000 to $174,999
- $175,000 or more
### Appendix to Chapter 3

Summary Data

Table B.1: Average Moral Conviction and Arousal for Each Political Prompt

<table>
<thead>
<tr>
<th>Variable</th>
<th>Self-Reported Moral Conviction</th>
<th>Physiological Arousal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Issues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abortion</td>
<td>4.05</td>
<td>0.99</td>
</tr>
<tr>
<td>Same-Sex Marriage</td>
<td>3.82</td>
<td>1.11</td>
</tr>
<tr>
<td>Death Penalty</td>
<td>3.77</td>
<td>0.92</td>
</tr>
<tr>
<td>Illegal Immigration</td>
<td>3.25</td>
<td>1.01</td>
</tr>
<tr>
<td>Mandatory Vaccines</td>
<td>3.13</td>
<td>1.25</td>
</tr>
<tr>
<td>Student Loan Forgiveness</td>
<td>2.88</td>
<td>1.11</td>
</tr>
<tr>
<td>Minimum Wage</td>
<td>2.81</td>
<td>1.13</td>
</tr>
<tr>
<td>Fracking</td>
<td>2.61</td>
<td>1.29</td>
</tr>
<tr>
<td>Free Trade Agreements</td>
<td>1.99</td>
<td>0.92</td>
</tr>
<tr>
<td>Parties</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democratic Party</td>
<td>3.51</td>
<td>0.86</td>
</tr>
<tr>
<td>Republican Party</td>
<td>3.42</td>
<td>1.06</td>
</tr>
<tr>
<td>Leaders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barack Obama</td>
<td>3.35</td>
<td>1.05</td>
</tr>
<tr>
<td>Mitt Romney</td>
<td>3.17</td>
<td>1.05</td>
</tr>
<tr>
<td>Hillary Clinton</td>
<td>3.02</td>
<td>1.23</td>
</tr>
<tr>
<td>John Boehner</td>
<td>1.96</td>
<td>1.18</td>
</tr>
<tr>
<td>Total</td>
<td>3.11</td>
<td>1.23</td>
</tr>
</tbody>
</table>

*Note:* The range of values for moral conviction is 1 to 5, and the range of values for physiological arousal is 0.78 to 1.70.
### Table B.2: Comparing the Effects of Different Covariates on Moral Conviction

<table>
<thead>
<tr>
<th>Covariate</th>
<th>Self-Reported Moral Conviction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiological Arousal</td>
<td>0.76$^+$</td>
</tr>
<tr>
<td></td>
<td>(0.42)</td>
</tr>
<tr>
<td>Political Knowledge</td>
<td>0.27$^{***}$</td>
</tr>
<tr>
<td></td>
<td>(0.07)</td>
</tr>
<tr>
<td>Age</td>
<td>0.08$^{**}$</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
</tr>
<tr>
<td>Strength of Partisanship</td>
<td>0.16$^+$</td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
</tr>
<tr>
<td>Strength of Ideology</td>
<td>0.11</td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
</tr>
<tr>
<td>Religious Commitment</td>
<td>−0.03</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
</tr>
<tr>
<td>Need for Cognition</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>(0.11)</td>
</tr>
<tr>
<td>Female</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td>(0.14)</td>
</tr>
<tr>
<td>White</td>
<td>−0.11</td>
</tr>
<tr>
<td></td>
<td>(0.14)</td>
</tr>
<tr>
<td>Stimulus Time</td>
<td>−0.01$^*$</td>
</tr>
<tr>
<td></td>
<td>(0.005)</td>
</tr>
<tr>
<td>(Intercept)</td>
<td>−0.49</td>
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<tr>
<td></td>
<td>(0.80)</td>
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</tbody>
</table>

**Prompt Random Effects** Included  
**Participant Random Effects** Included

---

**AIC** 2943.74  
**BIC** 3013.29  
**N** 1062

$^{***}p < 0.001$, $^{**}p < 0.01$, $^*p < 0.05$, $^+p < 0.10$, two-tailed test of significance. Data from issue, party, and leader prompts.
Table B.3: Estimated Effect of Arousal on Different Attitude Dimensions

<table>
<thead>
<tr>
<th></th>
<th>Model 1: Moral Conviction</th>
<th>Model 2: Attitude Extremity</th>
<th>Model 3: Attitude Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiological Arousal</td>
<td>0.28*</td>
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<tr>
<td></td>
<td>(0.13)</td>
<td>(0.19)</td>
<td>(0.12)</td>
</tr>
<tr>
<td>Stimulus Time</td>
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<td>−0.006*</td>
<td>−0.005**</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.003)</td>
<td>(0.002)</td>
</tr>
<tr>
<td>(Intercept)</td>
<td>0.44**</td>
<td>0.79***</td>
<td>0.60***</td>
</tr>
<tr>
<td></td>
<td>(0.17)</td>
<td>(0.23)</td>
<td>(0.14)</td>
</tr>
<tr>
<td>Prompt Fixed Effects</td>
<td>Included</td>
<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>Participant Fixed Effects</td>
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<td>Included</td>
<td>Included</td>
</tr>
<tr>
<td>R²</td>
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<td>0.42</td>
</tr>
<tr>
<td>N</td>
<td>638</td>
<td>638</td>
<td>638</td>
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</table>

***p < 0.001, **p < 0.01, *p < 0.05, +p < 0.10, two-tailed test of significance. Dependent variables coded 0–1 for ease of comparison. Data from issue prompts only. Heteroskedasticity-consistent standard errors.
Figure B.1: Marginal Effect of Arousal on Moral Conviction by Political Prompt

Note: Results from multilevel model with varying intercepts and slopes for the effect of physiological arousal on moral conviction for each political prompt. Data from issue, party, and leader prompts. Model includes fixed effects for each participant and a control for stimulus time. N = 1062. AIC = 2941.68. BIC = 3324.21. The following table lists the random and fixed effects for this model.
Table B.4: Estimated Effect of Arousal on Moral Conviction by Political Prompt

<table>
<thead>
<tr>
<th>Political Prompt</th>
<th>Intercept (SE)</th>
<th>Arousal (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abortion</td>
<td>0.96 (0.81)</td>
<td>-0.09 (0.79)</td>
</tr>
<tr>
<td>Death Penalty</td>
<td>0.38 (0.67)</td>
<td>0.20 (0.64)</td>
</tr>
<tr>
<td>Fracking</td>
<td>-0.21 (0.77)</td>
<td>-0.27 (0.76)</td>
</tr>
<tr>
<td>Free Trade Agreements</td>
<td>-1.66 (0.76)</td>
<td>0.75 (0.77)</td>
</tr>
<tr>
<td>Illegal Immigration</td>
<td>0.25 (0.67)</td>
<td>-0.10 (0.66)</td>
</tr>
<tr>
<td>Mandatory Vaccinations</td>
<td>-0.64 (0.74)</td>
<td>0.64 (0.73)</td>
</tr>
<tr>
<td>Minimum Wage</td>
<td>-0.29 (0.73)</td>
<td>-0.01 (0.71)</td>
</tr>
<tr>
<td>Student Loan Forgiveness</td>
<td>-0.21 (0.74)</td>
<td>0.03 (0.73)</td>
</tr>
<tr>
<td>Same-sex Marriage</td>
<td>1.20 (0.77)</td>
<td>-0.52 (0.76)</td>
</tr>
<tr>
<td>Democratic Party</td>
<td>0.74 (0.77)</td>
<td>-0.39 (0.75)</td>
</tr>
<tr>
<td>Republican Party</td>
<td>0.32 (0.80)</td>
<td>-0.03 (0.79)</td>
</tr>
<tr>
<td>Barack Obama</td>
<td>0.95 (0.75)</td>
<td>-0.76 (0.73)</td>
</tr>
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<td>Hillary Clinton</td>
<td>-0.59 (0.77)</td>
<td>0.45 (0.74)</td>
</tr>
<tr>
<td>John Boehner</td>
<td>-1.58 (0.74)</td>
<td>0.46 (0.73)</td>
</tr>
<tr>
<td>Mitt Romney</td>
<td>0.37 (0.73)</td>
<td>-0.35 (0.71)</td>
</tr>
</tbody>
</table>

Fixed Effects

<table>
<thead>
<tr>
<th>Participant Fixed Effects</th>
<th>Intercept (SE)</th>
<th>Arousal (SE)</th>
<th>Simulus Time (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Included</td>
<td>2.26*** (0.58)</td>
<td>0.79 (0.49)</td>
<td>-0.01* (0.005)</td>
</tr>
</tbody>
</table>

Model Summary

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AIC</td>
<td>2941.68</td>
<td></td>
</tr>
<tr>
<td>BIC</td>
<td>3324.21</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1062</td>
<td></td>
</tr>
</tbody>
</table>

***p < 0.001, **p < 0.01, *p < 0.05, +p < 0.10, two-tailed test of significance. Model includes varying intercepts and slopes for the effect of physiological arousal on moral conviction for each political prompt. Data from issue, party, and leader prompts.
The following tables include the results of models where the independent and dependent variables are switched so that physiological arousal is regressed on either self-reported moral conviction, attitude extremity, or attitude importance. They demonstrate that I get the same results even when I switch the order of the key explanatory and response variables. Moral conviction is the only predictor to have a significant effect on physiological arousal in any of the following models.

Table B.5: Estimated Effect of Moral Conviction on Arousal

<table>
<thead>
<tr>
<th></th>
<th>Physiological Arousal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Reported Moral Conviction</td>
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</tr>
<tr>
<td></td>
<td>(0.002)</td>
</tr>
<tr>
<td>Stimulus Time</td>
<td>-0.0001</td>
</tr>
<tr>
<td></td>
<td>(0.0004)</td>
</tr>
<tr>
<td>(Intercept)</td>
<td>0.98****</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
</tr>
<tr>
<td>Prompt Fixed Effects</td>
<td>Included</td>
</tr>
<tr>
<td>Participant Fixed Effects</td>
<td>Included</td>
</tr>
<tr>
<td>(R^2)</td>
<td>0.15</td>
</tr>
<tr>
<td>N</td>
<td>1062</td>
</tr>
</tbody>
</table>

***\(p < 0.001\), **\(p < 0.01\), *\(p < 0.05\), +\(p < 0.10\), two-tailed test of significance. Data from issue, party, and leader prompts. Heteroskedasticity-consistent standard errors.
Table B.6: Comparing the Effects of Different Covariates on Arousal

<table>
<thead>
<tr>
<th>Covariate</th>
<th>Physiological Arousal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Reported Moral Conviction</td>
<td>0.004* (0.002)</td>
</tr>
<tr>
<td>Political Knowledge</td>
<td>-0.001 (0.003)</td>
</tr>
<tr>
<td>Age</td>
<td>-0.001 (0.001)</td>
</tr>
<tr>
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</tr>
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<tr>
<td>White</td>
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<tr>
<td>Stimulus Time</td>
<td>-0.0004 (0.0003)</td>
</tr>
<tr>
<td>(Intercept)</td>
<td>1.05*** (0.03)</td>
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Prompt Random Effects Included
Participant Random Effects Included

AIC -2588.18
BIC -2518.63
N 1062

***p < 0.001, **p < 0.01, *p < 0.05, +p < 0.10, two-tailed test of significance. Data from issue, party, and leader prompts.
Table B.7: Estimated Effects of Different Attitude Dimensions on Arousal

<table>
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<tr>
<th></th>
<th>Model 1: Physiological Arousal</th>
<th>Model 2: Physiological Arousal</th>
<th>Model 3: Physiological Arousal</th>
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<td>(0.01)</td>
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<td>Attitude Extremity</td>
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<tr>
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<td>(0.01)</td>
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<td>Attitude Importance</td>
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<td></td>
<td></td>
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</tr>
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<td>−0.001</td>
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<td>1.00***</td>
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<td>(0.01)</td>
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<td>Prompt Fixed Effects</td>
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<td>Participant Fixed Effects</td>
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</tbody>
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R²          0.18  0.17  0.17
N           638  638  638

***p < 0.001, **p < 0.01, *p < 0.05, †p < 0.10, two-tailed test of significance. Moral conviction, attitude extremity, and attitude importance coded 0–1 for ease of comparison. Data from issue prompts only. Heteroskedasticity-consistent standard errors.
Table B.8: Comparing the Effects of Different Attitude Dimensions on Arousal

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<tr>
<td>Attitude Extremity</td>
<td>−0.01</td>
</tr>
<tr>
<td>Attitude Importance</td>
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<tr>
<td>Stimulus Time</td>
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</tr>
<tr>
<td>(Intercept)</td>
<td>0.99***</td>
</tr>
<tr>
<td>Prompt Fixed Effects</td>
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</tr>
<tr>
<td>Participant Fixed Effects</td>
<td>Included</td>
</tr>
</tbody>
</table>

R²: 0.18
N: 638

***p < 0.001, **p < 0.01, *p < 0.05, +p < 0.10, two-tailed test of significance. Moral conviction, attitude extremity, and attitude importance coded 0–1 for ease of comparison. Data from issue prompts only. Heteroskedasticity-consistent standard errors.
Physiological Response Study Question Wordings

Political Prompts (Content for Stimulus Interval)

Political Issues

- **Abortion** People hold different opinions on the issue of abortion. Some people believe in women’s right to choose, so they favor laws that make it easier for women to get access to abortion. Other people believe in the unborn’s right to life, so they oppose laws that make it easier for women to get access to abortion. Pause for a moment and consider both sides of the abortion debate. Then think about your own opinion on abortion. Once you have thought about the debate and your own position, click >>.

- **Death Penalty** Many people in the United States have different opinions on the death penalty. Some people favor the death penalty because they think it helps to deter crime and ensures that justice is served. Other people oppose the death penalty because they think it fails to deter crime and actually leads to greater injustices. Pause for a moment and consider both sides of the death penalty debate. Then think about your own opinion on the death penalty. Once you have thought about the debate and your own position, click >>.

- **Fracking** Hydraulic fracturing, or “fracking,” is a drilling method that uses high-pressure water and chemicals to extract oil and natural gas from underground rock formations. Some people favor fracking because they think it has a positive impact on energy production and our economy. Other people oppose fracking because they think it has a negative impact on water quality and our environment. Pause for a moment and consider both sides of the fracking debate. Then think about your own opinion on fracking. Once you have thought about the debate and your own position, click >>.

- **Free Trade Agreements** The U.S. has free trade agreements with several countries, which lift tariffs, taxes, and other barriers to trade between the countries. Some people favor free trade because they think it helps our economy by making it easier for U.S. companies to sell products and make profits overseas. Other people oppose free trade because they think it hurts our economy by making it easier for overseas companies to cut into U.S. profits by offering cheaper goods and services. Pause for a moment and consider both sides of the free trade debate. Then think about your own opinion on free trade agreements. Once you have thought about the debate and your own position, click >>.

- **Illegal Immigration** Many people disagree about the best way to deal with immigrants who are currently living in the U.S. illegally. Some people favor laws that provide a way for illegal immigrants to become citizens because these immigrants have already established their lives here and contributed to our society. Other people
oppose laws that provide a way for illegal immigrants to become citizens because these immigrants have already broken the law and taken advantage of the system. Pause for a moment and consider both sides of the illegal immigration debate. Then think about your own opinion on illegal immigration. Once you have thought about the debate and your own position, click >.

- **Mandatory Vaccinations** There is ongoing discussion about whether vaccines for childhood diseases should be required or left up to parental choice. Some people favor mandatory vaccinations because they think that all children should be required to get vaccines. Other people oppose mandatory vaccinations because they think that parents should be able to decide not to vaccinate their children. Pause for a moment and consider both sides of the mandatory vaccinations debate. Then think about your own opinion on mandatory vaccinations. Once you have thought about the debate and your own position, click >.

- **Minimum Wage** There has been discussion in recent years about raising the national minimum wage from $7.25 to $10.10 an hour. Some people favor the idea of increasing the minimum wage because they think it will help workers earn a fair income. Other people oppose the idea of increasing the minimum wage because they think it will cost some workers their jobs. Pause for a moment and consider both sides of the minimum wage debate. Then think about your own opinion on the minimum wage. Once you have thought about the debate and your own position, click >.

- **Student Loan Forgiveness** One idea to help address the rising cost of college is student loan forgiveness. College graduates who make regular payments on their federal student loans for at least 20 years would have their student loan debt forgiven. Some people favor student loan forgiveness because they think it will help students afford college. Other people oppose student loan forgiveness because they think it will increase the national debt. Pause for a moment and consider both sides of the student loan forgiveness debate. Then think about your own opinion on student loan forgiveness. Once you have thought about the debate and your own position, click >.

- **Same-sex Marriage** Many people disagree about the issue of same-sex marriage. Some people support the legalization of same-sex marriage because they think same-sex couples should be allowed to get married and have the same rights as traditional couples. Other people oppose the legalization of same-sex marriage because they think marriage should only be between one man and one woman. Pause for a moment and consider both sides of the same-sex marriage debate. Then think about your own opinion on same-sex marriage. Once you have thought about the debate and your own position, click >.

**Political Leaders**

- **Barack Obama** Barack Obama is the 44th president of the United States. Some people favor President Obama because they tend to approve of the job he has done
while in office and/or to like him as a leader. Other people oppose President Obama because they tend to disapprove of the job he has done while in office and/or to dislike him as a leader. Pause for a moment and consider why people might favor or oppose President Obama. Then think about your own opinion on President Obama. Once you have thought about the different positions and your own opinion, click > >.

- **Hillary Clinton** Hillary Clinton recently announced that she will run for president in 2016. Some people favor Clinton because they tend to agree with her political stances and/or to like her as a leader. Other people oppose Clinton because they tend to disagree with her political stances and/or to dislike her as a leader. Pause for a moment and consider why people might favor or oppose Hillary Clinton. Then think about your own opinion on Hillary Clinton. Once you have thought about the different positions and your own opinion, click > >.

- **John Boehner** John Boehner is the Speaker of the U.S. House of Representatives. Some people favor Speaker Boehner because they tend to approve of the job he has done while in office and/or to like him as a leader. Other people oppose Speaker Boehner because they tend to disapprove of the job he has done while in office and/or to dislike him as a leader. Pause for a moment and consider why people might favor or oppose Speaker Boehner. Then think about your own opinion on Speaker Boehner. Once you have thought about the different positions and your own opinion, click > >.

- **Mitt Romney** Mitt Romney ran for president in 2012. Some people favored Romney because they tended to agree with his political stances and/or to like him as a leader. Other people opposed Romney because they tended to disagree with his political stances and/or to dislike him as a leader. Pause for a moment and consider why people might favor or oppose Mitt Romney. Then think about your own opinion on Mitt Romney. Once you have thought about the different positions and your own opinion, click > >.

**Political Parties**

- **Democratic Party** The Democratic Party is one of the two major political parties in the United States. Some people favor the Democratic Party because they tend to agree with the Party’s stance on various issues and/or to like the Party’s leaders. Other people oppose the Democratic Party because they tend to disagree with the Party’s stance on various issues and/or to dislike the Party’s leaders. Pause for a moment and consider why people might favor or oppose the Democratic Party. Then think about your own opinion on the Democratic Party. Once you have thought about the different positions and your own opinion, click > >.

- **Republican Party** The Republican Party is one of the two major political parties in the United States. Some people favor the Republican Party because they tend to agree with the Party’s stance on various issues and/or to like the Party’s leaders. Other people oppose the Republican Party because they tend to disagree with the
Party’s stance on various issues and/or to dislike the Party’s leaders. Pause for a moment and consider why people might favor or oppose the Republican Party. Then think about your own opinion on the Republican Party. Once you have thought about the different positions and your own opinion, click >>.

Examples of Opinion Questions Used to Operationalize Attitude Extremity

All responses are coded 1 (strongly favor) to 5 (strongly oppose). Scores are folded at their midpoint to operationalize attitude extremity (3-point scale).

- **Student Loan Forgiveness** In general, to what extent do you favor or oppose student loan forgiveness?
- **John Boehner** In general, to what extent do you favor or oppose John Boehner?
- **Democratic Party** In general, to what extent do you favor or oppose the Democratic Party?
  - Strongly favor
  - Somewhat favor
  - Neither favor nor oppose
  - Somewhat oppose
  - Strongly oppose

Example of Question Used to Operationalize Attitude Importance

All responses are coded 1 (not important at all) to 5 (extremely important).

- **Student Loan Forgiveness** How important is the issue of student loan forgiveness to you personally?
  - Not important at all
  - Not too important
  - Somewhat important
  - Very important
  - Extremely important

Examples of Questions Used to Operationalize Moral Conviction

All responses are coded 1 (not at all) to 5 (very much). Scores on the following two questions are averaged to operationalize moral conviction (5-point scale).

- **Student Loan Forgiveness** To what extent is your opinion on the issue of student loan forgiveness...
• **John Boehner** To what extent is your opinion about John Boehner...

• **Democratic Party** To what extent is your opinion about the Democratic Party...
  
  – ... a reflection of your core moral beliefs and convictions?
  
  – ... deeply connected to your fundamental beliefs about right and wrong?
    
    * Not at all
    * Slightly
    * Moderately
    * Much
    * Very much

Examples of Questions Used to Operationalize Familiarity

All responses are coded 1 (not familiar at all) to 5 (extremely familiar).

• **Student Loan Forgiveness** How familiar are you with the issue of student loan forgiveness?

• **John Boehner** How familiar are you with John Boehner’s stance on various issues?

• **Democratic Party** How familiar are you with the Democratic Party’s stance on various issues?
  
  – Not familiar at all
  
  – Not too familiar
  
  – Somewhat familiar
  
  – Very familiar
  
  – Extremely familiar

Examples of Questions Used to Operationalize Emotions

All responses are coded 1 (not at all) to 5 (very much).

• **Student Loan Forgiveness** When you think about people who take a different stance on the issue of student loan forgiveness than you do, how much do you feel each of the following emotions?

• **John Boehner** When you think about John Boehner, how much do you feel each of the following emotions?

• **Democratic Party** When you think about the Democratic Party, how much do you feel each of the following emotions?
– Anger
– Disgust
– Sadness
– Worry
– Frustration
– Respect
– Fear
– Dislike
   ∗ Not at all
   ∗ Slightly
   ∗ Moderately
   ∗ Much
   ∗ Very much

Party Identification

The following three questions are used to operationalize party identification. Runs from 1 (strong Democrat) to 7 (strong Republican).

• Generally speaking, do you usually think of yourself as a Democrat, a Republican, an Independent, or what?
  – Democrat
  – Republican
  – Independent
  – Other/ Don’t know

• Would you call yourself a STRONG [Democrat/Republican], or a NOT VERY STRONG [Democrat/Republican]? (asked of those who selected “Democrat” or “Republican”)
  – Strong
  – Not very strong

• Do you think of yourself as closer to the Republican Party, or to the Democratic Party? (asked of those who selected “Independent” or “Other/ Don’t know”)
  – Closer to the Democratic Party
  – Closer to the Republican Party
  – Neither
Strength of Partisanship

Strength of partisanship is operationalized by folding the party identification measure at its midpoint. Runs from 1 (independent) to 4 (strong partisan).

Ideology

Runs from 1 (extremely liberal) to 7 (extremely conservative).

- We hear a lot of talk these days about liberals and conservatives. Here is a scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. In general, where would you place yourself on this scale?
  - Extremely Liberal
  - Liberal
  - Slightly Liberal
  - Moderate/ Middle of the Road
  - Slightly Conservative
  - Conservative
  - Extremely Conservative

Strength of Ideology

Strength of ideology is operationalized by folding the ideology measure at its midpoint. Runs from 1 (moderate) to 4 (strong ideologue).

Political Knowledge

Correct answers to the following four questions were each awarded one point and then summed to operationalize political knowledge. Runs from 0 (all wrong answers) to 4 (all correct answers).

- Who was Mitt Romney’s running mate (his vice-presidential candidate) in 2012?
  - Chris Christie
  - Paul Ryan
  - Rand Paul
  - Scott Walker
  - I’m not sure

- Who is the Chief Justice of the U.S. Supreme Court right now?
– Anthony Kennedy
– Antonin Scalia
– John Roberts
– Larry Thompson
– I’m not sure

• How much of a majority is required for the U.S. House and Senate to override a presidential veto?
  – Two-third
  – Three-fourths
  – Three-fifths
  – One-half
  – I’m not sure

• What job does Nancy Pelosi hold right now?
  – Speaker of the U.S. House of Representatives
  – Governor of California
  – House Majority Leader
  – House Minority Leader
  – I’m not sure

Need for Cognition

Scores on the following two questions are averaged to operationalize need for cognition. Runs from 1.5 (low need for cognition) to 3.5 (high need for cognition).

• Some people like to have responsibility for handling situations that require a lot of thinking, and other people don’t like to have responsibility for situations like that. What about you? To what extent do you like or dislike having responsibility for handling situations that require a lot of thinking?
  – Like it a lot
  – Like it somewhat
  – Neither like nor dislike it
  – Dislike it somewhat
  – Dislike it a lot
• Some people prefer to solve simple problems instead of complex ones, whereas other people prefer to solve more complex problems. Which type of problem do you prefer to solve: simple or complex?

  – Prefer simple problems
  – Prefer complex problems

Religious Commitment

Scores on the following two questions are averaged to operationalize religious commitment. Runs from 1 (never attend religious services nor pray) to 6 (frequently attend religious services and pray).

• People practice their religion in different ways, and some people are not religious. How often do you attend religious services?

  – More than once a week
  – Once a week
  – Once or twice a month
  – A few times a year
  – Once a year or less
  – Never

• Outside of attending religious services, how often do you pray?

  – Several times a day
  – Once a day
  – A few times a week
  – A few times a month
  – Seldom
  – Never

Age

Runs from 18 to 36.

• What is your age in years?

  – Numeric entry, 18-36

Gender

Runs from 0 (male) to 1 (female).
• Are you
  – Male
  – Female

Race/Ethnicity

The following question is used to operationalize race/ethnicity. Participants who select “Black/ African American,” “Asian,” “Native American,” “Hispanic/ Latino,” or “Other” are coded 0 (non-white), and participants who select “White/ Caucasian” are coded 1 (white).

• What racial or ethnic group best describes you?
  – White/ Caucasian
  – Black/ African American
  – Asian
  – Native American
  – Hispanic/ Latino
  – Other
C APPENDIX TO CHAPTER 4

Full Model Results

Table C.1: Estimated Effect of Each Condition on Moral Conviction

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***p < 0.001, **p < 0.01, *p < 0.05, †p < 0.10, two-tailed test of significance.

Table C.2: Estimated Effect of Each Condition on Arousal

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***p < 0.001, **p < 0.01, *p < 0.05, †p < 0.10, two-tailed test of significance.
### Table C.3: Estimated Effects of Conditions and Controls on Emotions

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<th>Fear</th>
<th>Dislike</th>
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<td>(1.79)</td>
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<td>(0.39)</td>
<td>(0.39)</td>
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<td>0.09</td>
<td>0.17**</td>
<td>0.15*</td>
<td>−0.003</td>
<td>1.33*</td>
<td>0.08</td>
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<td>(0.06)</td>
<td>(0.06)</td>
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<td>0.37*</td>
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<td>0.35</td>
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***p < 0.001, **p < 0.01, *p < 0.05, +p < 0.10, two-tailed test of significance.

### Table C.4: Estimated Effect of Each Condition on Emotions

<table>
<thead>
<tr>
<th></th>
<th>Anger</th>
<th>Disgust</th>
<th>Sadness</th>
<th>Worry</th>
<th>Frustration</th>
<th>Respect</th>
<th>Fear</th>
<th>Dislike</th>
<th>Average Emotion</th>
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<td>(0.22)</td>
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<td>−0.67+</td>
<td>−0.92*</td>
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<td>0.46+</td>
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<tr>
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<td>(0.33)</td>
<td>(0.34)</td>
<td>(0.39)</td>
<td>(0.37)</td>
<td>(0.25)</td>
<td>(0.44)</td>
<td>(0.39)</td>
<td>(0.31)</td>
</tr>
<tr>
<td>R²</td>
<td>0.06</td>
<td>0.02</td>
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</tbody>
</table>

***p < 0.001, **p < 0.01, *p < 0.05, +p < 0.10, two-tailed test of significance.
Human Trafficking Question Wordings

Human Trafficking Conditions

Each participant was randomly assigned to one of the following three conditions.

- **Emotion Condition** We would like you to pause and allow yourself to feel any emotions that are evoked by the next issue before you share your opinions on it. Please reflect on any feelings of anger, disgust, sadness, worry, or frustration, and allow these emotions to stir for a few moments. In summary, try to experience the deeper emotions aroused by the issue.

- **Deliberation Condition** We would like you to pause and think carefully and critically about various nuances of the next issue before you share your opinions on it. Please ponder the deeper economic, social, and cultural forces that drive attitudes toward and involvement with the issue. In summary, try to consider multiple dimensions of the issue like a research scholar would.

- **Moral Foundations Condition** We would like you to pause and reflect on questions of justice, fairness, and compassion that are raised by the next issue before you share your opinions on it. Please consider whether people are harmed or exploited, and think about ways they might need rescue, care, or protection. In summary, try to consider how to ensure human dignity and equality.

Human Trafficking Prompt (Content for Stimulus Interval)

Each participant read the following prompt.

- Human trafficking is the trade of humans, usually for the purpose of sexual slavery, forced labor, or forced prostitution. It is the fastest growing crime in the world and nets traffickers more than $30 billion a year. The United Nations has estimated that nearly 2.5 million people from 127 different countries are being trafficked all around the world. In our own country, an estimated 15,000 people are smuggled into the U.S. each year and sold like modern-day slaves. They are often beaten, starved, and forced to work as prostitutes or to take other grueling jobs with little or no pay. The majority of trafficking that goes on in the U.S. and around the world is sex trafficking, and a disproportionate number of the victims are women and children. Leaders from countries around the world are calling for more effective strategies to combat human trafficking so that men, women, and children are no longer used as a means to an end anywhere in the world. Some leaders think that countries should adopt more uniform anti-trafficking laws in order to effectively fight human trafficking. Other leaders think that countries should adopt their own anti-trafficking laws in order to effectively fight human trafficking. Pause for a moment and think about the issue of human trafficking. Then, consider whether you think it would be better for countries to adopt the same or different anti-trafficking laws. Once you have thought about the issue and your own position on it, click >>.
Attitude Extremity

Runs from 1 (strongly favor) to 5 (strongly oppose). Scores are folded at their midpoint to operationalize attitude extremity (3-point scale).

- In general, to what extent do you favor or oppose uniform trafficking laws?
  - Strongly favor uniform trafficking laws
  - Somewhat favor uniform trafficking laws
  - Neither favor nor oppose uniform trafficking laws
  - Somewhat oppose uniform trafficking laws
  - Strongly oppose uniform trafficking laws

Attitude Importance

Runs from 1 (not important at all) to 5 (extremely important).

- How important is the issue of human trafficking to you personally?
  - Not important at all
  - Not too important
  - Somewhat important
  - Very important
  - Extremely important

Moral Conviction

Scores on the following two questions are averaged to operationalize moral conviction. Runs from 1 (not at all) to 5 (very much).

- To what extent is your opinion on the issue of human trafficking...
  - ... a reflection of your core moral beliefs and convictions?
  - ... deeply connected to your fundamental beliefs about right and wrong?
    * Not at all
    * Slightly
    * Moderately
    * Much
    * Very much

Familiarity

Runs from 1 (not familiar at all) to 5 (extremely familiar).
• How familiar are you with the issue of human trafficking?
  – Not familiar at all
  – Not too familiar
  – Somewhat familiar
  – Very familiar
  – Extremely familiar

**Emotions**

Runs from 1 (not at all) to 5 (very much).

• When you think about the issue of human trafficking, how much do you feel each of the following emotions?
  – Anger
  – Disgust
  – Sadness
  – Worry
  – Frustration
  – Respect
  – Fear
  – Dislike
    * Not at all
    * Slightly
    * Moderately
    * Much
    * Very much

**Average Emotion**

Average emotion is operationalized by averaging how much anger, disgust, sadness, worry, frustration, fear, and dislike participants report feeling about human trafficking. Runs from 1 (no emotion) to 4 (very much emotion).
REFERENCES


681–690.


Lee, Jooa Julia and Francesca Gino. 2015. “Poker-Faced Morality: Concealing Emotions Leads to Utilitarian Decision Making.” Organizational Behavior and Human Decision


