

The Relationship Between Domain-Specific Identity and Moral Conviction

BY

LINDSAY KEERAN
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THESIS

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Defense Committee:

Linda J. Skitka, Chair and Advisor
Tomas Stahl
Daniel P. Cervone

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SUMMARY

Attitudes based on individual beliefs of right and wrong, also referred to as attitudes held with moral conviction, have numerous characteristics and consequences. However, less is known about what motivates people to attach moral conviction to attitude objects in the first place. The current research investigated identity as a possible motivator of moral conviction, as previous research has theorized that there may be a connection between moral beliefs and one's sense of personal identity or social identity expression (e.g. James, 1890; Ellemers, 2017; Skitka & Mullen, 2002; van Zomeren et al., 2012). My current studies investigated the respective relevance of each type of identity for moral conviction by directly comparing how much people reported that their attitudes were reflections of personal identity versus social identity (i.e. "domain-specific identity") predicted the degree to which they also reported that these attitudes were moral convictions.

I tested multiple competing hypotheses in my studies. Four hypotheses were tested across studies. The *personal identity hypothesis* predicted that the strength of moral conviction would be more strongly predicted by domain-specific personal identity compared to domain-specific social identity. The *social identity hypothesis* predicted that there would be a stronger relationship between moral conviction and domain-specific social identity compared to personal identity. The *additive hypothesis* predicted that the two types of identity would have unique, independent associations on moral conviction. If strength of moral conviction was associated with greater identity reflections only when the attitude was perceived to have high levels of personal and social identity concerns, this would support the *synergistic hypothesis*. Study 1 tested the relationship between domain-specific personal identity versus social identity and moral conviction by asking participants to reflect on the extent to which their attitudes was based on

SUMMARY (continued)

concerns related to each type of identity. Study 2 was a replication and extension of Study 1, where I investigated whether an individualistic versus collectivistic mindset was a moderator of the relationship. In Study 2, an additional hypothesis, the *mindset moderated hypothesis*, was tested, which looked at whether the relationship between each type of identity changed depending on the level of endorsement of the different mindsets.

Across both studies, domain-specific personal identity uniquely predicted moral conviction, but domain-specific social identity did not. Thus, the results supported the *personal identity hypothesis*. This result held across different issues and after controlling for a variety of covariates. The results also did not vary as a function of individualistic versus collectivistic mindset (Study 2). Findings are discussed in terms of their relevance for explaining certain aspects of moral conviction (given a relationship with domain-specific personal identity), as well as implications for moralization processes and buffering threats to the self.

I. INTRODUCTION

“I can’t in good conscience allow the U.S. government to destroy privacy...” – Edward Snowden

“I am not going to stand up to show pride in a flag for a country that oppresses black people and people of color.” – Colin Kaepernick

In 2013, Edward Snowden leaked NSA documents highlighting government programs that threatened the individual privacy of Americans. Based on the above quote, he seemingly felt a violation of his personal core values had occurred. By taking a stand and leaking the documents, he maintained his sense of authenticity. In contrast, Colin Kaepernick appeared in the media spotlight in 2016 for sitting and kneeling during the National Anthem at an NFL game. He kneeled to protest injustice and police brutality against people of color in America. He took a stand because of the mistreatment of a group of people important to him (i.e. people of color). Both Snowden and Kaepernick acted according to their moral conscience after experiencing a violation of their core values, but seemingly for different reasons: personal conscience and protecting the group, respectively. Arguably, we can explain the specific motivations for their actions by looking at different types of identity. Edward Snowden acted according to his personal identity (i.e. sense of core, unique attributes that survive independent of others), whereas Colin Kaepernick was driven by a social identity, that is, his identification with other people of color.

The examples above suggest a relationship between identity and moral attitudes in the real world, which aligns with established theoretical work addressing the two constructs. People hold some attitudes based on moral conviction, or one’s metacognitive beliefs about right and wrong. Imbuing an attitude with moral conviction has unique characteristics and consequences (Skitka et al., 2005). However, it is unclear what motivates people to attach moral conviction to

attitude objects in the first place. Identity expression could be one plausible reason for having morally convicted attitudes, because moral beliefs are theoretically a core component of the self (James, 1890). This is not to say that identity expression is the only reason why one may hold a morally convicted attitude. Identity relevance may be one feature or component of the basis of moral conviction, but there are presumably other motivations for imbuing attitudes with moral conviction, which future research could explore. However, the current research focuses on empirically testing identity expression as a potential motivator for moral conviction.

Specifically, moral convictions might serve to express one's sense of personal identity or social identity, which are important parts of the self. On the one hand, James (1890) argued that moral conscience is intimately connected to personal identity or the aspect of the self that is unique to an individual and represents personal attributes and continuity. Because one's sense of moral conviction is associated with one's sense of moral conscience, there is likely to be a similarly strong association between moral conviction and personal identity. On the other hand, important groups provide individuals with norms and beliefs (including those surrounding morality). These norms and beliefs are then internalized and help bond group members together (Ellemers, 2017). Moral beliefs can also influence change for the collective good (van Zomeren, Postmes & Spears, 2012). Thus, moral convictions could reflect social identities or the aspect of the self that is tied to one's important groups.

Although different theoretical frameworks exist to connect different types of identity with moral conviction, there is a lack of empirical work that directly compares the role of personal identity and social identity. In the following studies, I empirically test the degree to which attitudes imbued with moral conviction are also attitudes that express people's sense of personal or social identity. Gaining a greater understanding of the influence of personal identity

and social identity on moral conviction is important. In addition to advancing basic knowledge, the current research could potentially facilitate ways to increase or decrease the strength of moral conviction to impact downstream consequences of morally convicted attitudes (e.g., political engagement). It could also help with creating persuasive messages and communication strategies among opposing groups to impact policies and behaviors, and perhaps even suggest ways to address perceived threats to the self.

The current research is composed of two studies. In Study 1, I test the measurement reliability and validity of a domain-specific identity measure I created. I also examine the extent to which attitudes that reflect domain-specific personal or social identity predict the strength of moral conviction for those attitudes. The term domain-specific is being used to refer to situationally or contextually salient aspects of identity, in contrast to stable, context-independent characterizations of identity. In the current studies, I am interested in measuring the degree to which a person's attitude about a specific issue, like same-sex marriage, is connected to a specific type of identity. In other words, I am investigating how participants think about salient identities in relation to a specific issue. Thus, when talking about personal identity and social identity related to the current studies, I will refer to them as domain-specific personal and social identity. The goal of Study 2 is to replicate and extend Study 1 namely by looking at a possible individual difference moderator (i.e. individualistic versus collectivistic mindset) on the relationship between the different aspects of domain-specific identity and moral conviction. Before getting into the details of these studies, I review research on moral conviction, types of identity, and the relationship between moral conviction and types of identity.

A. Moral Conviction

Moral conviction provides one basis for an attitude, or one's favorable or unfavorable evaluations of specific objects. The integrated theory of moral conviction (ITMC) discusses how attitudes can be based on preferences, conventions, or moral convictions (Skitka, Bauman, & Mullen, 2008; cf. Turiel, 2002). Personal preferences are one's likes and dislikes. Some attitudes reflect preferences, such as when an individual dislikes marijuana use because of the taste and smell. Other attitudes may reflect conventions, or how things are done in a specific society (e.g., normative standards). Opposing marijuana use because it is illegal in the state one lives in illustrates a conventional basis of an attitude. Attitudes may also reflect an individual's (strong) moral convictions, or the metacognitions about the moral significance of an attitude (Skitka, 2010). Thus, if an individual opposes marijuana use because of a belief that it is fundamentally wrong, it would be considered an attitude based on moral conviction.

Importantly, morally convicted attitudes are theoretically associated with specific characteristics that differentiate them from strong non-moral attitudes. People perceive their moral attitudes as universal, where the perceiver believes their position on a morally convicted issue is the correct one to hold regardless of culture or society. Moral attitudes are also treated as objective facts. Morally convicted attitudes provide a sense of autonomy, meaning they act as an internal guide for an individual's behaviors (as opposed to behaviors guided by external sources, like authority figures or groups). This autonomy leads individuals to feel that morally convicted attitudes can govern actions independent of authority. People also experience strong emotions in connection with their morally convicted attitudes (e.g. greater intensity of disgust, anger, etc.). Additionally, there is a motivational component of morally convicted attitudes that is associated with driving individuals to act when they perceive a violation of their moral values or in a

context that activates their moral beliefs about an issue (e.g. voting for a policy aligned with these beliefs, Skitka et al., 2008). Morally convicted attitudes are a unique source of attitude strength and have important consequences, such as political intolerance or voting engagement (Skitka, 2010).

Although the characteristics and consequences of moral conviction have been established, less is known about why people are motivated to evaluate issues with a sense of moral conviction. One reason people imbue attitudes with moral conviction may be to express their personal identity or social identity. It seems possible that moral convictions would reside in a similar cognitive space as important aspects of the self, like memories, personal experiences, and identity, because moral convictions are based on individual beliefs of right and wrong and likely help shape one's moral compass. Thus, if a situation elicits thoughts about moral conviction, a specific type of identity may become accessible in people's working memory at the same time. The aim of the current research is to examine this possibility. Before summarizing work on the relationship between specific types of identity and moral conviction, I first review types of identity as a broad concept.

B. Types of Identity

The strength of one's attitude depends on a variety of dimensions. Moral conviction is just one component of attitude strength, but attitude strength can also depend on dimensions like importance, certainty, and --specifically important for the topic of identity-- centrality. Attitude centrality refers to how much a specific attitude is linked to one's sense of self, beliefs, and other attitudes (Eaton & Visser, 2008; Howe & Krosnick, 2017). Personal identity and social identity effects might combine to make up perceptions of attitude centrality. The centrality of an attitude may be especially linked to moral conviction. This is because people may see moral convictions

as important possessions and attitudes that provide a sense of authenticity, as well as attitudes that help support one's sense of belonging. Because of the multi-faceted nature of identities, however, it is possible that personal identity and social identity may have differential effects on attitude strength, something that has not yet been explored in detail. To understand how the different facets of identity exist together, the following sections will review identity in general, define personal identity and social identity, and how these types of identity may relate to moral conviction.

Identity refers to the characterization that individuals impose on themselves to define who they are (Baumeister, 1997). Conscious effort and social experiences craft one's identities and develop them across time. Identity encompasses both knowledge of oneself and others' perceptions of oneself (Chryssochoou, 2003). Although identity is often thought of as a singular construct, it is a more complex structure having multiple aspects that vary in accessibility within a given context. Identity salience and centrality are important to understand for the current research, as both could be contributing factors for activating a specific type of identity in a given context (e.g. moral). Identity salience is defined as how readily one can access and act according to a specific identity, whereas identity centrality is the importance a given identity holds in comparison to other identities (Murnieks et al., 2014). These two aspects of identity are viewed as hierarchical, but complementary, where centrality requires conscious effort to determine importance, but salience is triggered based on context. However, how central an attitude is can influence the degree to which that identity is likely to be salient (Stryker & Serpe, 1994). The type of identity that is most salient will have a dominant influence on cognitions and behaviors (Turner et al., 1994).

Two types of identity are relevant for the current studies: personal identity and social identity. Personal identity portrays the core, enduring, or “true” self, held regardless of group membership or societal pressure (Hitlin, 2003; Hornsey & Fielding, 2017). Social identity is the part of the self that reflects one’s group memberships and shared characteristics with those groups (Brewer, 1991). Selecting and expressing social identities can be a complex process, because people can have as many social identities as one has groups (James, 1890). Individuals select their social identities based on the relative importance of a group to their sense of self (Tajfel, 1974), which is influenced by the knowledge of a group and the emotional attachment one has to that group (Tajfel & Turner, 1979; Turner et al., 1994). Personal identity and social identity can be conceived of as separate entities or as different levels of one’s identity which become more salient in specific contexts (Brewer, 1991; Turner et al., 1994).

Identity incorporates both important beliefs and attitudes; therefore, to support one’s identity, one may express specific moral beliefs via their attitudes. Some theorists argue that moral conviction is connected to personal identity (James, 1890; Skitka & Mullen, 2002) and some argue it is related to social identity (Ellemers, 2017; van Zomeren et al., 2012). In my studies, I will examine how personal and social identity expression are associated with the strength of moral conviction on various issues. In the following sections, I will review the connection between each type of identity and moral conviction.

C. Personal Identity and Moral Conviction

There are several reasons to believe that moral convictions are associated with personal identity concerns. One reason why moral conviction might express personal identity concerns is because moral convictions arise in part out of people’s need to prove to themselves and others that they are morally authentic. One’s moral conscience can help with coherency of the self by

maintaining authenticity of the self (James, 1890). Establishing personal coherence within oneself allows for recognition that the person one wakes up to every morning is the same person (James, 1890). This coherence is an important aspect of personal identity. Attitudes held with moral conviction allow individuals to selectively express core moral beliefs that they hold (Skitka & Mullen, 2002), which helps with authenticity and expressing one's individuality. Empirically, we observe the connection between morality and personal authenticity in studies where participants imagined a situation where they lost their sense of morality. The results indicated that without morality, individuals believed they would no longer be able to recognize who they were (Strohming & Nichols, 2014). Thus, if moral convictions influence how one experiences the world by maintaining authenticity and coherency, they will be connected to people's sense of personal identity.

Another reason why attitudes held with moral conviction might express personal identity concerns is because theoretically, moral convictions are independent of authority or group influence. Moral convictions can serve people's need for autonomy, which means acting in a way that is self-determined and acting as one's causal agent. A sense of autonomy is necessary because it allows individuals to have the ability to navigate the world via one's control (Deci & Vansteenkiste, 2004). Autonomy connects to personal identity because it speaks to the origination of actions from internal influence, presumably driven by the thoughts and actions of that individual. Morally convicted attitudes allow people to act on their own authority (by what they believe is right). In other words, these attitudes represent beliefs that can guide actions and thoughts via internalized rather than externalized sources, which represents authority independence. When one is in a moral context, individual views of right versus wrong are of greater concern than what an authority figure, group, or societal norm would dictate.

Empirically, there is support for the idea that morally convicted attitudes are comparatively impervious to group influence (Skitka, 2010). In one study, individuals shared their opinion on torture in public (with a group in a computer-based discussion) and in private (by indicating their response privately on the computer). Regardless of whether they reported attitudes in public or private, individuals who had attitudes about torture that were higher in moral conviction were less likely to change their attitude to be similar to their group's attitude. In other words, they were less likely to conform to majority influence (Aramovich et al., 2011). Thus, morally convicted attitudes seem to be associated with guiding behaviors via other needs besides adhering to group influence.

The strength of an attitude's moral basis is also associated with decreased influence of group norms on public versus private behavioral intentions. Across two studies, the perceived moral basis of an attitude was examined as a moderator for the effect of group norms on behavioral intentions for two issues (recognition of gay couples in law, and an Australian government apology to Aborigines for historical atrocities). For those who indicated a strong moral basis for their attitudes, the group norm had no significant impact on private behavioral intentions (e.g. voting or signing a petition). The strength of an attitude's moral basis was also associated with people acting in line with these attitudes for public behavioral intentions (e.g. attending a rally, passing out leaflets, or expression of true attitude in front of a group member) when the group was opposed to their position compared to when the group supported it, but the result was non-significant (Hornsey et al., 2003). These results provide further evidence that as strength of moral basis for attitudes increases, group norms have less influence on important behavioral outcomes.

Moral convictions are also associated with resistance to authority influence, as examined in a justice context. In this context, the perceived legitimacy of court decisions about a morally convicted issue depended on how the decision aligned with a person's stance on that issue. If the decision was in opposition to an individual's morally convicted position, the individual was more likely to deem the procedure unjust and perceive the court as less legitimate (Mullen & Skitka 2006, Skitka & Mullen, 2002, Skitka & Mullen, 2008). In other words, an individual did not accept the decision because an authority figure made it. Rather, one's beliefs about what the outcome "should" be were associated with driving the judgments instead.

An additional reason that moral convictions might have an underlying motivation related to personal identity expression is that attitudes and beliefs can be seen as personal possessions (Abelson & Prentice, 1989). People share their beliefs with certain groups but not others and select beliefs based on personal or social interests, which is similar to how people interact with possessions. Certain contexts, such as making a public commitment to a belief, defending a belief, or suffering because of a belief, also strengthen the likelihood that beliefs will be viewed as possessions. Feelings of threat are experienced when one's beliefs are attacked, which occurs for possessions as well. Even the rhetoric used to discuss beliefs is similar to descriptions of possessions (e.g. holding, acquiring, cherishing, losing beliefs) (Abelson, 1986). Perceiving beliefs as possessions produces stronger implications for actions and thoughts for individuals than for beliefs not seen as possessions. Possessions can also be evaluated as having an expressive basis like attitudes and values can. Individuals who saw possessions as having self-expressive functions (using an object, symbolic or physical, to express personal values and self-identity) also tended to have attitudes that were more consistent with the self-expressive function (Prentice, 1987). Given moral convictions are based off important core beliefs that likely reflect

personal values and form strong attitudes, perhaps moral convictions are seen more deeply as personal possessions, or part of personal identity.

Taken together, there is evidence to suggest that moral convictions are motivated by personal identity concerns. Moral conviction can help maintain authenticity and coherence within a person. Attitudes held with moral conviction can provide an internal guide for one's actions. Moral convictions may also be perceived as strong personal possessions. These components are important aspects of one's personal identity. However, personal identity is not the only type of identity with a potential connection to moral conviction. The relationship between social identity and moral conviction will be addressed in the next section.

D. Social Identity and Moral Conviction

There are multiple reasons why moral convictions might also be associated with social identity concerns. One reason why moral convictions might express people's sense of social identity relates to moral convictions in part being learned through the norms and mores of important groups for an individual (e.g. moral convictions may be normatively influenced). Groups tell us what we should care about, what kinds of things should be punished, etc. There is a tendency for people to assume that others in their group have moral beliefs similar to their own (Cohen, 2003). Shared group beliefs and norms can help individuals understand themselves and establish relevant moral guidelines. Over time, individuals internalize group moral norms and values, which means individuals' sense of morality comes to encompass group values (Ellemers, 2017). People's deep need to belong leads to wanting acceptance by important groups, which means they will strive to become closer to a prototype of a good group member. Belonging to various social groups (and then translating some into social identities) can help fulfill and maintain the needs of belonging and relatedness, where people want to connect with others and

have shared experiences (Baumeister & Leary, 1995; Ryan & Deci, 2000). Morally convicted attitudes could thus be used to express social identities because holding moral convictions that reflect shared group values shows that the person is a good group member.

Another reason why morally convicted attitudes might address social identity concerns is because moral convictions reflect concerns about the collective good and about how we socially coordinate. Morality is often depicted as being driven in large part by concerns about social coordination, so it is not surprising that moral conviction can act as a powerful motivator in collective action contexts. When a person experiences a violation of moral values about a given issue, there is an urge to try and change the situation to reduce the threat induced by that moral violation (van Zomeren et al., 2012). One way to reduce the threat is to find others who want to make a similar change, thus creating a sense of community through social identity (i.e. a politicized identity related to the issue at hand). The relationship between moral conviction and politicized identity is viewed as a two-way relationship, where groups can provide norms that are adopted by group members, or group members could come in with moral convictions and project these onto a group. Thus, when moral convictions are violated, the individual perceives that the group as a whole feels this violation. This motivates the group to engage in social change (van Zomeren et al., 2012). Moral conviction, in this case, appears to function as an expression of important group values that motivate people to change something for the good of the group.

Empirically, the relationship between moral conviction and social identity was tested through incorporation of moral conviction into the Social Identity Model of Collective Action (van Zomeren et al., 2012). One main aspect of the revised model examined moral conviction as a predictor of collective action through its influence on activating people's politicized identity, because moral conviction and politicized identity have a strong normative fit. Across two studies,

the revised model accounted for significant variance in collective action. Moral conviction on different political issues (increased tuition fees in the Netherlands and non-visible use of cloned meat in consumer products) led to greater collective action tendencies (and actual collective action in the form of signing a petition at a protest). However, this result occurred because moral conviction was significantly associated with increased identification with a politicized group (student union and Greenpeace members), which in turn predicted increased intentions to engage in collective action. These results suggest that moral conviction can promote social change by “energizing” a relevant social identity when a moral violation is experienced. This finding therefore implies that moral conviction is important in the social identity domain, not just the personal identity domain.

Thus, there are multiple reasons why one might expect there to be a relationship between moral conviction and social identity. Moral convictions may be held to help express important group memberships through learned norms and beliefs. They can also motivate individuals to act in the interest of the collective unit to address social problems. So far, I have addressed how each type of identity could independently serve as a motivator for imbuing attitudes with moral conviction. However, it may be more complicated than this because it is possible that the effects of the two types of identity blend together to motivate moral conviction.

E. The Synergistic Roles of Personal and Social Identity

Different types of identity expression could have a combined influence on moral conviction because people may base their moral convictions on a combination of personal and group values. People become socialized to have moral convictions or to adopt certain values (Ellemers, 2017). But these moral values may become so internalized that they become a part of the personal self in addition to the social self, which implies that both personal identity and

social identity concerns feed into each other in moral contexts. Another place that we can potentially detect this combined effect of personal identity and social identity is in the context of external influence and moral conviction. The studies related to authority and group influence, seemingly important social identity motivators, show support for authority independence instead. These results align more with the idea of moral convictions serving personal identity needs (e.g. acting in line with intrinsic beliefs and autonomy), rather than social identity needs. Whether personal identity and social identity needs combine additively or in multiplicative ways to motivate moral conviction is an open question. Two of my hypotheses will address the possibility that both types of identity may be relevant when attitudes are perceived as moral, but the study designs will not allow for exploration of processes that develop moral convictions (e.g. the relative influence of group versus personal factors).

F. Contribution of Current Studies

Although previous research has done a good job outlining the theoretical frameworks for why identity expression may be a motivator for holding morally convicted attitudes, there is a lack of direct empirical tests of both personal and social identity effects on moral conviction at the same time. Research that has studied personal identity and moral conviction has largely used proxy measures and evidence to establish this connection, without any explicit identity measures or manipulations (i.e. Skitka & Mullen, 2002). On the social identity side, the research seems to take a hypothesis confirmation approach and does not try to account for the role that personal identity may play in collective action (i.e. van Zomeren et al., 2012). Rather, finding associations with social identity is interpreted to some degree to mean that social and not personal identity is primarily associated with people's morally convicted attitudes. My studies have been designed to explicitly ask participants about the degree to which their attitudes reflect personal identity and

social identity (“domain-specific identity”), and the degree to which those attitudes vary in strength of moral conviction. This way, I can directly analyze the different identity-relevant ties to moral conviction. Before going into the details of the current studies, I first outline the conceptual hypotheses that will be tested.

G. Conceptual Hypotheses

Four hypotheses will be tested across both studies. If morally convicted attitudes are stronger reflections of people’s domain-specific personal identity, then I would predict a stronger relationship between people’s strength of moral conviction and the degree to which a given attitude reflects the person’s domain-specific personal identity compared to domain-specific social identity (the *personal identity hypothesis*). If, however, morally convicted attitudes are instead stronger reflections of people’s domain-specific social identities, then I would expect there to be a stronger relationship between people’s strength of moral conviction and the degree to which a given attitude is seen as a reflection of the person’s group memberships (their domain-specific social identity) compared to domain-specific personal identity (the *social identity hypothesis*).

It is also possible that both domain-specific identities are relevant in a moral context. If this is the case, I may find a mixed effect. If identity expression in general (regardless of type) is one possible motivation for holding moral convictions, then I would expect a strong relationship between the degree to which an attitude is perceived as having a moral basis and the degree to which that attitude reflects either domain-specific identity. In other words, domain-specific personal identity and domain-specific social identity would each have unique associations with moral conviction (*additive hypothesis*). It could also be the case that the relationship between identity and moral conviction is more synergistic, whereby attitudes held with moral conviction

are those that are most tied to both domain-specific personal and social identity. If identity expression, in general, is one possible component of morally convicted attitudes, then I would predict that only those attitudes reflecting both high levels of domain-specific personal identity and domain-specific social identity characteristics, over and above the independent effects of the two types of domain-specific identity, will have a strong relationship with the degree to which those attitudes have a moral basis (*synergy hypothesis*).

II. STUDY 1

Study 1 has two goals. One goal is to establish the construct validity of the domain-specific identity measure I created to assess meta-cognitions about the degree to which attitudes reflect domain-specific personal versus social identity concerns. The other goal is to investigate four hypotheses (the *personal identity*, *social identity*, *additive*, and *synergy hypotheses*) by examining how the perceived identity basis of an attitude about a given issue predicts participants' strength of moral conviction for that same issue.

A. Method

1. Participants

Three hundred fifty-three undergraduate students in an introductory psychology course at the University of Illinois at Chicago completed the study for partial course credit. Based on an *a priori* power analysis to detect a small effect size in a correlational design ($r = .2$) at 80% power, I needed to recruit at least 193 participants. Participants who did not complete all key measures of domain-specific personal identity, domain-specific social identity, and moral conviction ($N = 27$), failed the attention checks ($N = 44$), or who took less than 9 minutes to complete the study¹ ($N = 45$) were excluded, leaving a final analytic sample size of 237 participants.

2. Procedure

Participants completed questions related to their attitudes on three issues (same-sex marriage, gun control, and capital punishment). Issues were presented in randomized blocks so that the issues were counterbalanced to alleviate order effects. For each issue, participants indicated whether they supported or opposed the issue, how strongly they supported or opposed

¹ Given the median time to complete the study was 14.75 minutes, participants who finished in 9 minutes or less were unlikely to be paying close enough attention to provide good data, so 9 minutes was chosen as the cutoff of being excluded for the "duration" check.

the issue, and completed attitude strength measures of moral conviction, importance, and certainty. Then, participants completed the domain-specific identity scale, which asked them the extent to which their attitude on an issue reflected items related to domain-specific personal identity and domain-specific social identity. Then, they completed additional validation items related to domain-specific personal identity and social identity concerns. After completing measures for the three issues, participants answered demographic questions.

3. Measures²

a. Attitude Stance

Participant attitude position was assessed by asking participants, “Do you support or oppose “the legalization of same-sex marriage”/ “allowing conceal/carry in Illinois”/ “capital punishment)?” on a 3-point scale with point labels of *support*, *neutral/uncertain*, and *oppose*. If participants indicated support or opposition, they answered the question, “How strongly do you support/oppose X?” on a 4-point scale of *slightly*, *moderately*, *much*, and *very much*. If participants indicated a neutral position, they were asked, “Do you lean towards supporting or opposing X?” and responded on a 3-point scale of *lean towards supporting*, *neutral*, and *lean towards opposing*. Responses were converted to a -5 to 5 scale to create a single score for participant attitude stance, where -5 indicated strongly oppose X, 5 indicated strongly support X, and 0 was neutral. Participants had a stance score for each issue.

b. Attitude Strength

Participants indicated how strong their attitudes were by reading the statement “To what extent is your position on X...” and then responded to two items for attitude importance

² Religious conviction and demographic variables (age, gender, ethnicity, education, religiosity, political party, political orientation, and religious preference) were collected but not used in analyses for Study 1 (see Appendix A for measures used in analyses & Appendix B for measures not included in analyses).

(“Something that you care a lot about?” and “Personally important to you?”) and two items for attitude certainty (“Something you are certain about?” and “Something you are sure you are correct about?”). Responses were given on a 5-point scale with point labels of *not at all*, *slightly*, *moderately*, *much*, and *very much*. The measures of attitude importance and certainty were both reliable ($\alpha = .88-.90$ and $.86-.89$, respectively), so the two items for each strength indicator were averaged together to create one score for attitude importance and one score for attitude certainty.

c. Moral Conviction

Participants were asked about the degree to which they perceived their attitude on each issue to be a reflection of their moral convictions. Specifically, participants were given the statement “To what extent is your position on X...” and then responded to two different stems: “...connected to your beliefs about fundamental right and wrong?”, and “...a reflection of your core moral beliefs and convictions?” Participants responded on a 5-point scale with point labels of *not at all*, *slightly*, *moderately*, *much*, and *very much*. The two items for moral conviction were reliable ($\alpha = .85$, $.82$, and $.83$ for same-sex marriage, gun control, and capital punishment, respectively) and thus averaged to create a moral conviction score for each issue.

d. Domain-Specific Identity Scale³

To measure the degree to which participants’ attitudes on specific issues reflected identity concerns, participants completed measures of domain-specific personal identity and social identity composed of new items and some items adapted from the Aspects of Identity Questionnaire (AIQ-IV) to refer to specific attitudes (Cheek & Briggs, 2013). Participants were asked the general question, “To what extent does your attitude on X reflect the following?” and then were presented with different items related to personal or social identity concerns, as

³ I collected data on utilitarian/self-interest perceptions of attitudes as well but I am not using the utilitarian subscale in the analysis for the current study (see Appendix B).

described below. Responses were provided on a 5-point scale with the following point labels: *not at all reflected*, *slightly reflected*, *moderately reflected*, *much reflected*, and *very much reflected*.

Domain-Specific Personal Identity. This subscale contained the following items: “My sense of who I am as a person”, “My true self”, “The real me”, “My core self”, “Who I am as a person”, “My own personal well-being and self-esteem”, “Important part of who I am”, “My ideas about what kind of person I really am”, “My private opinions of myself”, and “My internal guiding principles” ($\alpha = .96-.97$ across issues).

Domain-Specific Social Identity. This subscale consisted of the following items (note the starred items were dropped based on factor analysis results): “How I feel about important others in my life*”, “My desire to maintain close relationships”, “My desire to avoid unnecessary conflict with others”, “A signal to others that I am a good group member”, “Values of the group of people most important to me”, “My identification with central groups in my life”, “My desire to avoid being rejected by others who are important to me”, “Reputation (what others think of me)”, “Feelings of connectedness with those I am close to”, “Relationships with those I feel close to”, and “External factors that guide my principles and values*” ($\alpha = .93-.96$ across issues).

e. Construct Validation Items

Participants were asked to respond to the following statements that tapped into important aspects of identity concerns (the domain-specific identity subscale that each validation item should correspond to is noted in the parentheses): “I would feel a personal loss if I didn’t hold my attitude towards X” (personal identity), “I wouldn’t know who I was if I gave up my attitude on X” (personal identity), “My group would reject me if I gave up my attitude on X” (social identity), and “To what extent is having the right attitude toward X a defining feature of the

groups you belong to?” (social identity). Participants responded to these items on a 5-point scale with the following point labels: *not at all*, *slightly*, *moderately*, *much*, and *very much*.

Participants also responded to two questions related to individuality versus groupness. The first was “Do you hold this attitude on X because it reflects something unique about you as a person, or because it reflects something unique about a group that is important to you?” (both) and participants responded on a 6-point scale with the following point labels: *unique to me*, *moderately unique to me*, *slightly unique to me*, *slightly unique to my group*, *moderately unique to my group*, and *unique to my group*. The second question was “When thinking about X, do you typically think about your stance in terms of its importance to I/me or us/we?” (both) and participants responded on a 6-point scale with the following point labels: *very much I/me*, *moderately I/me*, *slightly I/me*, *slightly us/we*, *moderately us/we*, and *very much us/we*.

f. Attention Checks⁴

Three attention checks were included in the study. The first attention check was included with the same-sex marriage set of questions, and stated, “If you read this question, please select ‘much reflected’”. The second check was included in the gun control questions and stated, “If you read this question, select ‘Not at all reflected’”. The third attention check was included in the capital punishment block of questions and stated, “If you read this question, please select ‘slightly reflected’”. To pass an attention check for inclusion in analyses, participants had to respond correctly to at least 2 of the 3 attention checks provided, meaning they had to select the

⁴ I ran the regression analyses with and without data exclusion and results were similar, with two exceptions (Table XIII and XIV for analyses without data exclusion; note that all supplemental tables are found in Appendix C, starting with Table XIII). When running the regression with covariates, for the issue of capital punishment, social identity was a significant negative predictor of moral conviction (MC) and this was qualified by a significant personal identity (PI) x social identity (SI) interaction. When covariates were removed, social identity and the interaction of PI x SI were no longer significant predictors of MC for capital punishment, but interestingly there was a significant negative PI x SI interaction for the issue of gun control.

answer provided in the statement. I conducted analyses with and without participants who failed the attention checks.

B. Results

1. Scale and Construct Validity

Before turning to hypothesis tests, I conducted analyses to establish the construct validity of the new measures of domain-specific personal and social identity attitude relevance developed for the purposes of this study. Toward this end, I first conducted separate exploratory factor analyses (EFA) for each issue, using varimax rotation and Principal Axis Factoring (PAF) extraction, to test whether domain-specific personal and social identity relevance measured two distinct constructs, or instead, perhaps yielded a single factor solution that reflected overall identity relevance. I tested for the appropriate number of factors in several different ways: I plotted eigenvalues, used scree plots, and conducted parallel analysis. The eigenvalue plots indicated a two-factor solution for gun control and capital punishment but was on the border of a two- versus three-factor solution for same-sex marriage. The scree plots produced a two-factor solution for all three issues, and the parallel analysis with 500 iterations of resampling also indicated a two-factor solution for each issue. Given the most common solution was two-factor, I proceeded forward with the two-factor solution.

The two factors for each issue generally aligned with the expectation of having two separate subscales: Factor 1 was more reflective of domain-specific personal identity and Factor 2 was more reflective of domain-specific social identity (see Table I). The items *“How I feel about important others in my life”* and *“External factors that guide my principles and values”* were not included in the finalized domain-specific social identity subscale because they loaded better on Factor 1 than Factor 2 for one of the issues. The items for each subscale had good

reliability ($\alpha = .93-.97$), so I averaged the items to create domain-specific personal identity and social identity subscale scores for each issue. The domain-specific personal and social identity subscales were positively correlated with one another ($r = .56, .58$, and $.60$ respectively for same-sex marriage, gun control, and capital punishment)⁵. Taken together, the results indicated a two-factor solution for the domain-specific identity scale that followed the hypothesized expectation for the two subscales. Items loaded appropriately to create two factors that reflected the degree to which people perceived their attitudes as something that reflected their domain-specific personal identity and social identity, respectively.

⁵ I also tried weighting the items by averaging each item factor loading across the three issues and then multiplying by item responses to create a weighted average subscale for each type of domain-specific identity, using both promax and varimax rotations (so these analyses were completed twice; see Tables XV and XVI). The correlations between the domain-specific identity subscales were similar regardless of procedure (see Table XVII), so I chose to use the unweighted averaged subscales with varimax rotation because I was interested in trying to make the constructs as uncorrelated as possible. Table XVIII shows the factor loadings when using promax rotation and the averaged weighted loadings.

Table I

Factor Loadings > .3 from Exploratory Factor Analyses for Issues of Same-sex Marriage, Gun Control, and Capital Punishment using Varimax Rotation

	Same-sex marriage		Gun control		Capital punishment	
	Factor 1: Personal Identity	Factor 2: Social identity	Factor 1: Personal Identity	Factor 2: Social identity	Factor 1: Personal Identity	Factor 2: Social identity
Eigenvalue	12.47	3.22	12.90	3.12	13.69	3.06
% Variance	37.80	28.00	38.00	30.40	37.00	34.70
My sense of who I am as a person	.88		.86		.87	
My true self	.93		.91		.91	
The real me	.93		.92		.91	
My core self	.92		.92		.90	
Who I am as a person	.88		.91		.90	
My own personal well-being and self-esteem	.73	.32	.69		.71	.39
Important part of who I am	.80	.32	.79	.31	.76	.41
My ideas about what kind of person I really am	.83		.82	.34	.81	
My private opinions of myself	.64		.68	.41	.70	.36
My internal guiding principles	.66		.73		.73	
How I feel about important others in my life	.56	.45	.44	.50	.43	.61
My desire to maintain close relationships	.34	.71	.35	.75		.78
My desire to avoid unnecessary conflict with others		.70		.60		.79
A signal to others that I am a good group member	.31	.68		.80	.33	.77
Values of the group of people most important to me	.36	.67	.35	.77	.37	.76
My identification with central groups in my life	.39	.68	.35	.75		.78
My desire to avoid being rejected by others who are important to me		.76		.82		.84
Reputation (what others think of me)		.64		.76		.76
Feelings of connectedness with those who I am close to		.82		.84		.85

Relationships with those I feel close to	.31	.82	.37	.72		.88
External factors that guide my principles and values	.30	.60	.50	.43	.42	.46

I also investigated the validity of my domain-specific identity scale using the validation items to verify whether the identity subscales were measuring what they intended to measure. If the measures were working as intended, I predicted that domain-specific personal identity would have stronger positive correlations with “I would feel a personal loss if I didn’t hold my attitude towards X” and “I wouldn’t know who I was if I gave up my attitude on X” compared to domain-specific social identity. I anticipated that domain-specific social identity would have stronger positive correlations with “My group would reject me if I gave up my attitude on X” and “To what extent is having the right attitude toward X a defining feature of the groups you belong to?” compared to domain-specific personal identity. I also expected that the items “Do you hold this attitude on X because it reflects something unique about you as a person, or because it reflects something unique about a group that is important to you?” and “When thinking about X, do you typically think about your stance in terms of its importance to I/me or us/we?” would positively correlate with domain-specific social identity and negatively correlate with domain-specific personal identity.

To examine these predictions, I found the partial correlations between each domain-specific identity subscale and each of the validation items. I then conducted z-tests to compare the partial correlations for domain-specific personal identity versus domain-specific social identity. The majority of the partial correlation patterns supported the predictions (see Table II), but there were a few items that did not. The item “When thinking about X, do you typically think about your stance in terms of its importance to I/me or us/we?” correlated with domain-specific personal identity and social identity in the predicted directions (e.g. correct sign) but was not significant for same-sex marriage. This item did not correlate with the two domain-specific identity subscales for gun control. The item “Do you hold this attitude on X because it reflects

something unique about you as a person, or because it reflects something unique about a group that is important to you?” had the predicted valence for the partial correlations, but was not significant for gun control.

However, after obtaining z-scores to compare partial correlations between the two subscales, only some were significantly different. The item “I would feel a personal loss if I didn’t hold my attitude towards X” had a stronger positive correlation with domain-specific personal identity compared to domain-specific social identity across issues. The more likely a person was to feel a personal loss without a specific attitude, the greater likelihood that they also perceived that attitude to be reflective of their domain-specific personal identity. Additionally, the item “Do you hold this attitude on X because it reflects something unique about you as a person, or because it reflects something unique about a group that is important to you?” had a different correlation with domain-specific social identity compared to domain-specific personal identity across issues. The more a person endorsed an attitude as reflective of something unique about the group, the more likely it was that the same attitude was also reflective of domain-specific social identity concerns, and the less likely it was that the attitude was also reflective of domain-specific personal identity concerns. Thus, the individual correlation patterns worked as expected for the most part, but the z-score results illustrated that there were only some significant differences between the partial correlations of domain-specific personal versus social identity. Therefore, the domain-specific identity subscales were largely validated, with some exceptions as a function of item wording.

Table II

Partial Correlations between Domain-Specific Identity Scales and Validation Items and Z-scores for Test of Differences between Partial Correlations of Domain-Specific Personal versus Social Identity

Measure	M	SD	Same-sex marriage			M	SD	Gun control			M	SD	Capital punishment		
			Factor 1: PI	Factor 2: SI	Z-score			Factor 1: PI	Factor 2: SI	Z-score			Factor 1: PI	Factor 2: SI	Z-score
I would feel a personal loss if I didn't hold my attitude towards X	2.76	1.39	.48**	.02	5.46**	2.27	1.18	.45**	.10	4.21**	1.93	1.11	.41**	.12	3.41**
I wouldn't know who I was if I gave up my attitude on X	2.29	1.42	.45**	<-.01	5.28**	1.72	1.09	.33**	.17*	1.85	1.70	1.11	.32**	.26**	.71
My group would reject me if I gave up my attitude on X	1.87	1.19	.11	.36**	-2.88*	1.34	0.72	.11	.20*	-1.00	1.33	0.72	.04	.31**	-3.02*
To what extent is having the right attitude toward X a defining feature of the groups you belong to?	2.46	1.36	.12	.32**	-2.88*	1.93	1.10	.19*	.33**	-1.63	1.68	0.99	.22*	.28**	-.69
Do you hold this attitude	3.20	1.65	-.39**	.26**	-7.33**	2.78	1.35	-.09	.12	-2.29*	2.62	1.26	-.24*	.29**	-5.77**

on X because
it reflects
something
unique about
you as a
person, or
because it
reflects
something
unique about a
group that is
important to
you?”^a

When thinking about X, do you typically think about your stance in terms of its importance to I/me or us/we?	3.96	1.77	-.04	.10	-1.55	3.89	1.76	.01	.05	-0.39	3.43	1.58	-.19*	.15*	-3.72**
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* $p < .05$, ** $p < .001$.

Note. PI = domain-specific personal identity and SI = domain-specific social identity. The partial correlations listed in the personal identity column were the correlations between PI and each validation item controlling for social identity. The partial correlations listed in the social identity column were the correlations between SI and each validation item controlling for personal identity.

^aThis item had 2 NAs, so this correlation was based on $N = 230$.

2. Descriptive Statistics

As can be seen in Tables III-V, participants supported same-sex marriage, leaned toward opposing conceal/carry, and felt neutral about capital punishment (death penalty), on average. Both domain-specific personal identity and social identity were positively correlated with moral conviction; as perceptions of personal or social identity bases of attitudes increased, strength of moral conviction on those attitudes also increased. However, the means for domain-specific personal and social identity bases were below the midpoint for the domain-specific identity measures, suggesting that people on the whole did not strongly associate their attitudes with domain-specific identity concerns.

Table III

Correlation Matrix of Key Variables for Issue of Same-sex Marriage

Measure	M	SD	1	2	3	4	5
1) Moral conviction	3.48	1.32					
2) Personal identity	2.82	1.32	.66**				
3) Social identity	2.42	1.12	.36**	.56**			
4) Attitude certainty	3.79	1.24	.72**	.60**	.36**		
5) Attitude importance	2.89	1.41	.67**	.70**	.47**	.64**	
6) Issue position	2.78	2.96	.13*	.23**	.20**	.37**	.32**

*p < .05 and ** p < .001

Table IV

Correlation Matrix of Key Variables for Issue of Gun Control

Measure	M	SD	1	2	3	4	5
1) Moral conviction	3.12	1.19					
2) Personal identity	2.57	1.17	.68**				
3) Social identity	2.19	1.03	.37**	.58**			
4) Attitude certainty	3.19	1.18	.69**	.61**	.33**		
5) Attitude importance	3.03	1.25	.76**	.68**	.37**	.75**	
6) Issue position	-1.16	3.07	-.16*	-.17*	-.09	-.24**	-.14*

*p < .05 and ** p < .001

Table V*Correlation Matrix of Key Variables for Issue of Capital Punishment*

Measure	M	SD	1	2	3	4	5
1) Moral conviction	3.05	1.15					
2) Personal identity	2.47	1.16	.61**				
3) Social identity	1.85	0.99	.40**	.60**			
4) Attitude certainty	2.74	1.18	.69**	.55**	.41**		
5) Attitude importance	2.43	1.16	.71**	.62**	.53**	.72**	
6) Issue position	0.07	2.83	-.09	-.17*	<.01	-.07	-.10

*p < .05 and ** p < .001

3. Hypothesis Tests

I investigated the relationship between strength of moral conviction on specific issues and the degree to which participants perceived their attitudes on the same issues as reflecting domain-specific personal and social identity concerns. The *personal identity hypothesis* predicted that the degree to which people perceive a given issue as tied to their domain-specific personal identity, compared to domain-specific social identity, should more strongly predict the strength of their moral conviction on that issue. The *social identity hypothesis* predicted that evaluating an issue as relevant to one's domain-specific social identity, compared to domain-specific personal identity, should better predict the strength of moral conviction on that issue. The *additive hypothesis* predicted that the degree to which people see a given issue as tied to their domain-specific personal or social identity should have significant, independent effects on predicting whether people see that same issue as morally convicted. The *synergy hypothesis* predicted that people should have stronger moral convictions about an issue when they perceive both domain-specific personal identity and social identity reflected in their attitude on that same issue (i.e. a spreading interaction pattern), above and beyond the additive effects of domain-specific personal and social identity.

I tested these competing hypotheses (*personal identity*, *social identity*, *additive*, and *synergy*) using hierarchical multiple regression, where domain-specific personal identity and domain-specific social identity⁶ were entered as Step 1 predictors for moral conviction of different issues and the interaction of domain-specific personal x social identity was entered as a Step 2 predictor. I ran three separate models, one for each issue (see Table VI). Strength of moral conviction was positively associated with the degree to which attitudes were perceived as reflecting domain-specific personal identity, such that more positive perceptions of personal identity basis for an attitude predicted greater strength of moral conviction of that attitude. This pattern of results occurred for all three issues and supported the *personal identity hypothesis*. The *social identity hypothesis* was not supported because domain-specific social identity was not associated with moral conviction when entered into the model with domain-specific personal identity. The *additive hypothesis* presumed that both types of domain-specific identity would have an effect on moral conviction, and because each domain-specific identity subscale did not have unique effects when predicting moral conviction, it was also not supported. The interaction between domain-specific personal identity and social identity on moral conviction was not significant for any of the issues, which was inconsistent with the *synergy hypothesis*.

⁶ I tested the domain specificity of my identity measures by running regression analyses with domain-specific personal identity and social identity predicting the matched-domain moral conviction in one model and then the non-matched domain moral conviction measures in the next two models. I repeated these models for each issue (see Tables XIX-XXI). I expected that, ideally, both types of domain-specific identity would be more predictive of the matching domain moral conviction compared to the non-matching. The general pattern of results was that matching-domain personal identity was a positive predictor of matching-domain moral conviction and matching-domain social identity was not a significant predictor.

Table VI⁷*Hierarchical Regression Analyses (Standardized Regression Weights) Predicting Moral Conviction in Different Attitude Domains*

Predictor	<i>Same-sex marriage</i>				<i>Gun control</i>				<i>Capital punishment</i>			
	β	<i>SE</i> β	<i>LL</i>	<i>UL</i>	β	<i>SE</i> β	<i>LL</i>	<i>UL</i>	β	<i>SE</i> β	<i>LL</i>	<i>UL</i>
Step 1												
Personal identity	.67**	.06	.55	.78	.69**	.06	.58	.81	.58**	.06	.45	.71
Social identity	-.02	.06	-.13	.10	-.03	.06	-.14	.09	.05	.06	-.09	.18
Step 2												
Personal identity*Social identity	<-.01	.05	-.10	.10	-.08	.06	-.18	.03	<-.01	.06	-.12	.11
R^2_{adj}	.43				.46				.37			

Note. ** $p < .001$. LL = lower limit for 95% CI for β ; UL = upper limit for 95% CI for β

⁷ The results in Table VI were not controlling for covariates. I ran these analyses with and without controlling for attitude strength indicators (importance and certainty) and issue position, and the pattern of results was consistent for the most part (see Table XXII for analyses controlling for covariates). Domain-specific personal identity was still a stronger predictor than domain-specific social identity, and the interaction was not significant. The slope estimates of the identity predictors were not as large when accounting for attitude strength and issue position. Attitude strength indicators were significant and stronger predictors of MC than domain-specific PI, but domain-specific PI was still a significant unique predictor. The R^2 was also higher in the more complex models.

C. Discussion

The results of Study 1 supported the *personal identity hypothesis*, such that perceiving an attitude as reflective of domain-specific personal identity concerns positively predicted the extent to which that same attitude was also based on one's moral convictions, both with and without controlling for domain-specific social identity. Perceptions of domain-specific social identity concerns about one's attitudes were associated with moral convictions about the same issue when not controlling for domain-specific personal identity (see Tables XXIII and XXIV), but not when controlling for the latter. Therefore, domain-specific social identity did not explain any unique variance in moral conviction, a result that was inconsistent with the *social identity hypothesis*. The results did not support the *additive hypothesis* or *synergy hypotheses* either.

By directly asking participants to reflect on strength of both moral conviction and domain-specific identity bases for the same attitude, we can start to understand potential reasons for holding moral convictions. More specifically, we now know that moral convictions have stronger connections to domain-specific personal identity than domain-specific social identity concerns. The results of Study 1 nonetheless indicate that there is more to understand about the underlying motivations for moral conviction besides identity-relevant concerns. There was still a large amount of residual variance unaccounted for in moral conviction after accounting for the effects of domain-specific personal identity and social identity, which bolsters the idea that although identity may be a component of moralization, it likely is not a fundamentally motivating or defining consideration.

The goals of Study 2 were to replicate the results of Study 1 and extend them by controlling for social desirability concerns and by examining how a specific individual difference

of having an individualistic versus collectivistic mindset may play a role in the relationship between domain-specific identity and moral conviction.

III. STUDY 2

In Study 2, I aimed to replicate the hypothesis testing results of Study 1, confirm that the factor structure of my domain-specific identity measure replicated in a new sample, and extend Study 1 in two ways. First, I included social desirability as a control variable to verify that domain-specific personal and social identity are not solely reflecting desirability concerns. Second, I tested whether having a general individualistic versus collectivistic mindset moderated the relationship between domain-specific identity and moral conviction.

In Study 1, the results supported the *personal identity hypothesis*, perhaps because of a close tie between moral beliefs and one's sense of domain-specific personal identity. However, a boundary condition on these results could be that, on average, Americans tend to have a more individualistic mindset than many other cultures which may skew my results toward supporting the *personal identity hypothesis*. An individualistic mindset (e.g. independent self-construal) can lead to more independent views of self, which means people put more emphasis on personal attributes, values, and achievements. The individual is the primary focus, rather than feelings, thoughts, and relationships concerning others. In contrast, a collectivistic mindset (e.g. interdependent self-construal) promotes interdependent views of self, which stresses viewing oneself in the context of others and emphasizes the importance of relationships with others. Interdependent views of the self primarily highlight connectedness, group characteristics, and others' achievements (Markus & Kitayama, 1991).

Typically, there are core aspects of the self that are consistently accessible in memory, but other parts of the self (e.g. different identities) may become more accessible depending on the context (working self-concept; see Markus & Kunda, 1986). How central different aspects of identity are for people can differ as a function of self-construal (Markus & Kitayama, 1991;

Wang, 2006). Whereas some cultures view a distinction between different parts of the self (e.g. people describe identities as various subparts), others may not readily discuss types of identity or conceive of more than one identity. However, people can generally distinguish personal identity versus social identity if prompted to do so (Cousins, 1989), which implies that people across different contexts do have a sense of different aspects of the self. The different general mindsets that people tend to adopt relate to types of identity. Personal identity is positively associated with individualistic mindset, whereas the collectivistic mindset has a positive relationship with social identity (Brewer & Chen, 2007; Ellemers et al., 2002; Rhee et al., 1995). Although individualistic and collectivistic mindsets are often studied between cultures, there is variation in these mindsets within the United States (Vandello & Cohen, 1999). Different regions in the United States have more individualistic or more collectivistic mindsets on average.

Individuals may vary in the degree to which they internalize individualistic versus collectivistic values, perhaps in part from the mindsets emphasized in one's family growing up (Wang, 2006). The general individualistic versus collectivistic mindset that people develop based on their environment and their own views of the world likely influences the kinds of issues that they moralize. If different mindsets push individuals to emphasize a specific type of identity, then this might influence the relationship between moral conviction and identity expression. Whereas people with a more individualistic mindset may be more likely to base moral convictions on personal identity concerns, people with a more collectivistic mindset may have a greater tendency to base their moral convictions on social identity concerns or motivations. Thus, the *mindset moderated hypothesis* aims to test whether the relationship between domain-specific identity and moral conviction changes based on the mindset a person has. The positive relationship between domain-specific personal identity and moral conviction should be stronger

at higher levels of an individualistic mindset compared to lower levels of an individualistic mindset. However, the relationship between domain-specific personal identity and moral conviction should be weaker or show no relationship at higher levels of a collectivistic mindset compared to lower levels of a collectivistic mindset. The positive relationship between domain-specific social identity and moral conviction should be stronger for those who report a higher level of a collectivistic mindset compared to a lower level of a collectivistic mindset. The relationship between domain-specific social identity and moral conviction should be weaker for or unrelated to high levels of an individualistic mindset compared to low levels of an individualistic mindset.

A. Method

1. Participants⁸

Prior to data cleaning, four-hundred fifty-nine UIC subject pool participants completed Time 1 measures and 432 participants completed Time 2 measures for Study 2. After removing duplicate cases ($N = 51$ for Time 1 and $N = 16$ for Time 2) and missing identifier information ($N = 1$), 366 participants completed both parts. Participants were excluded from the combined dataset if they finished both parts of the survey in under 5 minutes ($N = 20$) and if they failed to pass at least 1 attention check for each part of the study ($N = 20$), leaving an analytic $N = 326$.

Participants in the analytic sample were predominantly female (65%) with a mean age of 19.21

⁸ The data exclusion rules explained here deviated from the OSF preregistration. The duration outliers changed because the predicted time completion was different than anticipated, because the majority of the data fell above 5 minutes (median time was 14.07 minutes for Part 1 and 18.58 minutes for Part 2). The median was used because participants had a wide range of completion times, likely due to participants completing the survey online and potentially not completing it in one sitting. Because no manipulations were used in the study, outliers above the median are not as big of a concern. Thus, I used 5 minutes as the duration cut off. For the attention checks, upon further review, the end of survey attention check items did not seem fair for participants because the wording may have been too tricky for participants. Instead, because the “during the survey” attention check items (e.g. items such as “if you read this question, please select 7-strongly agree”) were fairer and arguably easier to get correct, I applied the “pass one of two” rule for both part 1 and part 2. Thus, to pass attention checks, participants had to pass at least 1 of 2 of the “during the survey” attention checks for each part.

($SD = 1.70$). The sample was ethnically diverse, largely consisting of Latino/a (40.74%) and Asian American (25.0%) individuals, but also included White (19.13%) and Black individuals (7.41%). Participants varied in their generational status, with largely first-generation (35.08%) and second-generation immigrants (47.69%) in the sample, followed by third-and-higher generation (16.92%). Regarding languages spoken at home, 28.84% of participants were English-speakers only, 48.77% were monolingual (English-speakers not included), and 19.02% were bilingual.

2. Procedure

Participants first completed the Moral Foundations Questionnaire (MFQ), self-construal scale, and social desirability scale at Time 1 of the study. At Time 2, the same procedure as Study 1 was used except for the following changes: the identity subscales developed in Study 1 were used, the identity validation items were not completed again, and participants responded to questions about immigration generational status, country of origin for participant and parents, and language spoken at home in addition to the Study 1 demographic variables.

3. Measures

a. Time 1 Measures

Participants completed individual difference measures of MFQ, self-construal, and social desirability at Time 1. The primary operationalization of individualistic versus collectivistic mindsets was the *individualizing* and *binding* moral foundations (Graham et al., 2011), respectively. The secondary operationalization for individualistic versus collectivistic mindsets was the interdependent and independent self-construal subscales (Kitayama et al., 2014). This scale served as a back-up operationalization to examine the quality of using *individualizing* versus *binding* foundations as an operationalization for general mindset. Using self-construal

subscales as predictors should produce similar results to using the Moral Foundations items if the foundations are a good proxy for mindset.

The five moral foundations factor into two different clusters of moral concern, *individualizing* and *binding*, based on whether the focus of moral values is on the individual or the group. The *individualizing* foundations are the *harm* and *care* foundations, which include values and concerns related to protecting the rights and welfare of individuals. The foundations of *authority*, *purity*, and *ingroup* fall under the *binding* foundations, which focus on values that enhance the cohesion of groups, promote duty concerns, and self-control (Clark et al, 2017; Graham et al., 2009). The *binding* foundations relate to a collectivistic mindset because the collectivistic mindset emphasizes group connectedness and interdependence. The *individualizing* foundations relate to an individualistic mindset because this general mindset focuses on personal attributes, which could include desire for individual rights. There are likely individual differences in the extent to which people associate more with the *individualizing* versus *binding* foundations based on regional differences in the United States and the diversity of backgrounds in the university subject pool sample.

i. Moral Foundations Questionnaire. The Moral Foundations Questionnaire measured the five typical foundations plus the liberty foundation using two sets of items (MFQ; Graham et al., 2011; Iyer et al., 2012). For the first set of items, the instructions were: “When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please rate each statement using this scale.” Participants rated the following items on a 6-point scale, with point labels of *not at all relevant (This consideration has nothing to do with my judgments of right and wrong)*, *not very relevant*, *slightly relevant*, *somewhat relevant*, *very relevant*, and *extremely relevant (This is one of the most important factors when I judge*

right and wrong). The second set of items started with instructions of “Please read the following sentences and indicate your agreement or disagreement” and participants responded to items on a 6-point scale with point labels of *strongly disagree*, *moderately disagree*, *slightly disagree*, *slightly agree*, *moderately agree*, and *strongly agree*. Instead of using the five foundations separately, I used the two clusters, *individualizing* and *binding* foundations (Napier & Lugari, 2012). To obtain the subscales for each cluster of foundations, I combined the items belonging to the harm and fairness foundations and took the average to create the *individualizing* foundations score. I combined the ingroup, authority, and purity foundations items and averaged them together for the *binding* foundations score. The liberty foundation has two separate subscales, but neither of these subscales are incorporated into the *individualizing* or *binding* foundations (Iyer et al., 2012). Listed below are the items for each foundation:

Individualizing Foundations. “Whether or not someone suffered emotionally”, “Whether or not someone cared for someone weak or vulnerable”, “Whether or not someone was cruel”, “Compassion for those who are suffering is the most crucial virtue”, “One of the worst things a person could do is hurt a defenseless animal”, “It can never be right to kill a human being”, “Whether or not some people were treated differently than others”, “Whether or not someone acted unfairly”, “Whether or not someone was denied his or her rights”, “When the government makes laws, the number one principle should be ensuring that everyone is treated fairly”, “Justice is the most important requirement for a society”, and “I think it’s morally wrong that rich children inherit a lot of money while poor children inherit nothing” ($\alpha = .77$).

Binding Foundations⁹. “Whether or not someone’s action showed love for his or her country”, “Whether or not someone did something to betray his or her group”, “Whether or not

⁹ The item “Whether or not someone conformed to the traditions of society” from the authority subscale was not included due to a programming error.

someone showed a lack of loyalty”, “I am proud of my country’s history”, “People should be loyal to their family members, even when they have done something wrong”, “It is more important to be a team player than to express oneself”, “Whether or not someone showed a lack of respect for authority”, “Whether or not an action caused chaos or disorder”, “Respect for authority is something all children need to learn”, “Men and women each have different roles to play in society”, “If I were a soldier and disagreed with my commanding officer’s orders, I would obey anyway because that is my duty”, “Whether or not someone violated standards of purity and decency”, “Whether or not someone did something disgusting”, “Whether or not someone acted in a way that God would approve of”, “People should not do things that are disgusting, even if no one is harmed”, “I would call some acts wrong on the grounds that they are unnatural”, and “Chastity is an important and valuable virtue” ($\alpha = .86$).

Economic Liberty Foundation. “Whether or not private property was respected”, “People who are successful in business have a right to enjoy their wealth as they see fit”, “Society works best when it lets individuals take responsibility for their own lives without telling them what to do”, “The government interferes far too much in our everyday lives”, “The government should do more to advance the common good, even if that means limiting the freedom and choices of individuals (*reverse scored*)”, and “Property owners should be allowed to develop their land or build their homes in any way they choose, as long as they don’t endanger their neighbors” ($\alpha = .42$).

Lifestyle Liberty Foundation. “Whether or not everyone was free to do as they wanted”, “I think everyone should be free to do as they choose, so long as they don’t infringe upon the

equal freedom of others”, and “People should be free to decide what group norms or traditions they themselves want to follow” ($\alpha = .34$).

ii. Interdependent Self-construal. Interdependent self-construal was measured with the following items (Kityama et al., 2014) on a 7-point scale of *strongly disagree* (1) to *strongly agree* (7): “I have respect for the authority figures with whom I interact”, “It is important for me to maintain harmony within my group”, “My happiness depends on the happiness of those around me”, “I would offer my seat on a bus to my professor”, “I respect people who are modest about themselves”, “I will sacrifice my self-interest for the benefit of the group I am in”, “I often have the feeling that my relationships with others are more important than my own accomplishments”, “I should take into consideration my parents’ advice when making education/career plans”, “It is important to me to respect decisions made by the group”, “I will stay in a group if they need me, even when I’m not happy with the group”, “If my brother or sister falls, I feel responsible”, “I feel my fate is intertwined with the fate of those around me”, “I feel good when I cooperate with others”, “I usually go along with what others want to do, even when I would rather do something different”, and “Even when I strongly disagree with group members, I avoid an argument”. Items were averaged together to get a final score ($\alpha = .77$).

iii. Independent Self-construal. Independent self-construal was assessed with the following items (Kityama et al., 2014) on a 7-point scale of *strongly disagree* (1) to *strongly agree* (7): “I’d rather say “No” directly, than risk being misunderstood”, “Speaking up during a class is not a problem for me”, “Having a lively imagination is important to me”, “I am comfortable with being singled out for praise or rewards”, “I act the same way at home that I do at school (or work)”, “Being able to take care of myself is a primary concern for me”, “I act the same way no matter who I am with”, “I can talk openly with a person who I meet for the first

time, even when this person is much older than I am”, “I prefer to be direct and forthright when dealing with people I’ve just met”, “I enjoy being unique and different from others in many respects”, “My personal identity, independent of others, is very important to me”, “I do my own thing, regardless of what others think”, “I feel it is important for me to act as an independent person”, “I try to do what is best for me, regardless of how that might affect others”, and “I value being in good health above everything”. Items were averaged together to get a composite score ($\alpha = .81$).

iv. Social Desirability. I measured social desirability with a short-form version of the Marlowe-Crowne scale, which has 13 items (Reynolds, 1982). Items were scored as *True* or *False*. To obtain a score for each participant, 0 points versus 1 point was added to the score based on an answer key and then the points were added together. The instructions given to participants are “Read each item and decide whether it is true (T) or false (F) for you. Try to work rapidly and answer each question by selecting the T or the F.”

The following items were used: “It is sometimes hard for me to go on with my work if I am not encouraged”, “I sometimes feel resentful when I don’t get my way”, “On a few occasions, I have given up doing something because I thought too little of my ability”, “There have been times when I felt like rebelling against people in authority even though I knew they were right”, “No matter who I’m talking to, I’m always a good listener”, “There have been occasions when I took advantage of someone”, “I’m always willing to admit when I make a mistake”, “I sometimes try to get even rather than forgive and forget”, “I am always courteous, even to people who are disagreeable”, “I have never been irked when people expressed ideas very different from my own”, “There have been times when I was quite jealous of the good

fortune of others”, “I am sometimes irritated by people who ask favors of me”, and “I have never deliberately said something that hurt someone’s feelings” ($\alpha = .65$).

v. Attention Checks. There were three attention check items. The first two attention check items were found in the self-construal questionnaire and Moral Foundations questionnaire. The items were “if you read this question, please select 7-strongly agree” and “If you read this question, please select ‘moderately disagree’”, respectively. The third attention check item was at the end of the survey, where participants were asked the following item: “What is the topic of this study? – Sometimes participants do not carefully read the instructions. To correctly answer this question, please select the option “other” and write down the name of your favorite movie.” The answer choices were *Values*, *Shopping preference*, *I don’t remember*, and *Other (please specify: _____)*.

b. Time 2 Measures

Measures of moral conviction ($\alpha = .80$ -.83 across issues), attitude importance ($\alpha = .84$ -.89 across issues), and attitude certainty ($\alpha = .87$ -.90 across issues) were measured using the same items as Study 1.

i. Domain-Specific Identity Scale. I used a revised version of the domain-specific personal identity subscale (10 items) and domain-specific social identity subscale (9 items), based on the analyses of Study 1. The social identity scale items of “How I feel about important others in my life” and “External factors that guide my principles and values” were collected but not included in the Study 2 analyses because of the factor analysis results of Study 1. The domain-specific personal identity scale had an $\alpha = .96$ across issues and the domain-specific social identity subscale had an $\alpha = .91$ -.94 across issues.

ii. Identity Response Latencies. I collected response latencies for the

domain-specific personal identity and social identity measures to test the hypotheses with another operationalization of domain-specific identity. I used the Qualtrics-generated page submit variable, or how many total seconds passed before the participant clicks the Next button (i.e. the total amount of time the participant spends on the page). It should be noted that the domain-specific personal identity and social identity items were completed in two blocks of 5-6 items per block, so the page submit was not just one item at a time, but rather reflected how long a participant took to respond to the whole scale.

iii. Demographics. I measured the same demographic variables from Study 1 (see Appendix B) and then the following new items:

Immigration Generational Status. “We are interested in gathering information about immigrant generational status. First-generation refers to a person who lives in the United States but was born outside the United States or U.S. territories. Second-generation refers to a person who has at least one immigrant parent. Third- and higher-generation refers to a person who is the child of U.S.-born parents. What is your immigrant generational status?” Participants will respond on a scale of *first-generation*, *second-generation*, and *third- and higher-generation*.

Language At Home. What language is spoken at home?

Country Of Origin. What country are you/your parents originally from? (Asked if participant indicated first- or second-generation immigration status, respectively)

iv. Attention Checks. For Time 2 of the study, the attention check items of “If you read this question, please select ‘slightly reflected’” and “If you read this question, please select ‘not at all reflected’” were found in the same-sex marriage domain-specific personal identity subscale and gun control domain-specific social identity subscale, respectively. The third attention check item was given at the end, where participants are asked the following

item: “What is the topic of this study? Sometimes participants do not carefully read the instructions. To correctly answer this question, please select the option “other” and write down the name of your favorite food.” The answer choices will be *Political issues*, *Shopping preference*, *I don’t remember*, and *Other (please specify:_____)*.

B. Results

1. Confirmatory Analyses

Based on the results of Study 1, I expected that my domain-specific identity measure would have a two-factor structure, with the first factor encompassing the domain-specific personal identity subscale and the second factor reflecting the domain-specific social identity subscale. To confirm the factor structure, I conducted a confirmatory factor analysis (CFA) of the identity scale items for each issue. The two-factor model fit the data better than a one-factor model, thus confirming the domain-specific identity factors: a personal identity factor and a social identity factor. Overall, though, neither the one- or two-factor solutions met conventional standards of “good fit” (Hooper et al., 2008). The CFI values for gun control and capital punishment were close to .9 (which was “good fit”), but the RMSEA values were all above .10, which indicated “poor fit” (see Tables VII and VIII). Nonetheless, the two-factor model was consistent with the results of Study 1, so there was justification for treating the subscales as distinct constructs at least to some degree. Thus, I proceeded with the analyses by averaging the items in each subscale together for each issue.

Table VII

Goodness-of-Fit Indicators for Confirmatory Factor Analysis Models for Types of Domain-Specific Identity

Model	χ^2	df	χ^2 diff	CFI	BIC	RMSEA
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	SSM					
One-factor	2166.32**	152		.67	18111.33	.20**
Two-factor	1053.76**	151	1112.6**	.85	17004.56	.14**
	GC					
One-factor	1863.77**	152		.72	16889.00	.19**
Two-factor	825.59**	151	1038.2**	.89	15856.61	.12**
	CP					
One-factor	2533.16**	152		.64	16354.02	.22**
Two-factor	856.30**	151	1676.9**	.89	14682.95	.12**

** p <.001

Note. SSM = same-sex marriage; GC = gun control; CP = capital punishment; X^2 diff = chi-square of the difference between values of the one-factor vs two-factor model; CFI = comparative fit index; BIC = Bayesian information criterion; RMSEA = root-mean-square error of approximation.

Table VIII

Standardized Factor Loadings for 2-factor Confirmatory Model for Domain-Specific Identity for Issues of Same-sex Marriage, Gun control, and Capital Punishment

	SSM	GC	CP	SSM	GC	CP
	Factor 1: PI			Factor 2: SI		
My sense of who I am as a person	.90	.92	.93			
My true self	.98	.96	.94			
The real me	.95	.95	.94			
My core self	.97	.93	.95			
Who I am as a person	.90	.92	.95			
My own personal well-being and self-esteem	.69	.63	.69			
Important part of who I am	.77	.82	.79			
My ideas about what kind of person I really am	.78	.81	.81			
My private opinions of myself	.68	.72	.70			
My internal guiding principles	.74	.75	.78			
My desire to maintain close relationships				.80	.82	.84
My desire to avoid unnecessary conflict with others				.59	.72	.80
A signal to others that I am a good group member				.73	.79	.79
Values of the group of people most important to me				.78	.75	.81
My identification with central groups in my life				.77	.80	.82
My desire to avoid being rejected by others who are important to me				.60	.68	.76
Reputation (what others think of me)				.54	.66	.74

Feelings of connectedness with those who I am close to	.85	.78	.87
Relationships with those I feel close to	.81	.77	.86

Note. SSM = same-sex marriage, GC = gun control, CP = capital punishment

2. Descriptive Statistics

Similar to Study 1, the means for domain-specific personal identity were higher than domain-specific social identity across issues, but all means for the identity scales were below the midpoint (see Tables IX-XI). Participants endorsed the *individualizing* foundations more on average than the *binding* foundations and there was variability of responses within each measure (see Figures 1 and 2). Moral Foundations and self-construal were positively correlated, which provided some evidence that using moral foundations as a proxy for mindset was justified. The domain-specific identity scales were also positively correlated with the Moral Foundations scales albeit small and with a few exceptions.

Table IX*Descriptive Statistics and Correlations for Issue of Same-sex Marriage*

Measure	M	SD	1	2	3	4	5	6	7	8	9	10
1. Moral conviction	3.50	1.27										
2. Personal identity	2.81	1.26	.49**									
3. Social identity	2.50	1.05	.29**	.53**								
4. Attitude certainty	3.81	1.27	.66**	.46**	.27**							
5. Attitude importance	2.73	1.39	.52**	.55**	.49**	.55**						
6. Issue position	2.83	2.96	.05	.09	.16*	.26**	.36**					
7. Binding	2.91	0.71	-.07	-.05	.07	-.15*	-.15*	-.31**				
8. Individualizing	3.81	0.64	.24**	.20**	.29**	.25**	.23**	.20**	.29**			
9. Independent SC	5.01	0.72	<-.01	-.07	<.01	-.10	-.05	-.10	.25**	.20**		
10. Interdependent SC	4.82	0.72	-.06	-.02	.07	-.07	-.04	-.05	.33**	.14*	.27**	
11. Social desirability	6.32	2.63	-.06	-.04	-.01	-.14*	-.08	<.01	.17*	.08	.15*	.05

Note. **p < .001, * p < .05. SC = self-construal

Table X*Descriptive Statistics and Correlations for Issue of Gun Control*

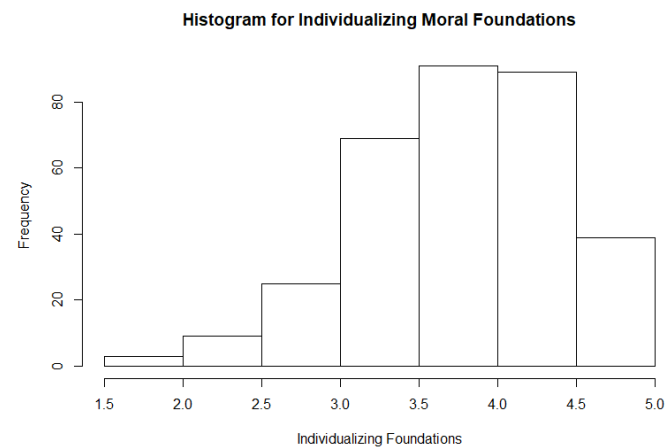
Measure	M	SD	1	2	3	4	5	6	7	8	9	10
1. Moral conviction	3.19	1.16										
2. Personal identity	2.63	1.16	.66**									
3. Social identity	2.22	1.01	.43**	.60**								
4. Attitude certainty	2.99	1.18	.65**	.52**	.37**							
5. Attitude importance	3.00	1.19	.70**	.61**	.48**	.68**						
6. Issue position	-0.60	2.89	-.22*	-.15*	-.16*	-.16*	-.22**					
7. Binding	2.91	0.71	.06	.13*	.27**	.11	.09	.12*				
8. Individualizing	3.81	0.64	.21**	.18*	.17*	.13*	.16*	-.15*	.29**			
9. Independent SC	5.01	0.72	.12*	.07	.08	.08	.06	.05	.25**	.20**		
10. Interdependent SC	4.82	0.72	.07	.04	.08	-.05	.01	-.09	.33**	.14*	.27**	
11. Social desirability	6.32	2.63	-.05	.04	.05	<-.01	<.01	.09	.17*	.08	.15*	.05

Note. **p < .001, * p < .05. SC = self-construal

Table XI*Descriptive Statistics and Correlations for Issue of Capital Punishment*

Measure	M	SD	1	2	3	4	5	6	7	8	9	10
1. Moral conviction	3.22	1.13										
2. Personal identity	2.47	1.13	.55**									
3. Social identity	1.97	0.99	.31**	.55**								
4. Attitude certainty	2.73	1.19	.54**	.47**	.33**							
5. Attitude importance	2.46	1.11	.55**	.58**	.44**	.64**						
6. Issue position	0.24	2.55	-.15*	-.25**	-.07	-.01	-.11					
7. Binding	2.91	0.71	-.02	.13*	.30**	.12*	.07	.13*				
8. Individualizing	3.81	0.64	.14*	.12*	.15*	.07	.16*	-.13*	.29**			
9. Independent SC	5.01	0.72	.08	.10	.08	.19**	.14*	-.05	.25**	.20**		
10. Interdependent SC	4.82	0.72	-.02	.07	.13*	-.10	-.01	-.04	.33**	.14*	.27**	
11. Social desirability	6.32	2.63	-.04	.05	.07	.08	.07	-.10	.17*	.08	.15*	.05

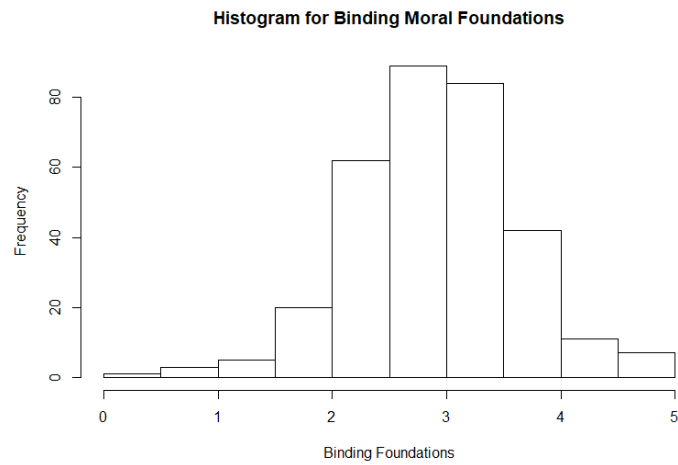
Note. ** $p < .001$, * $p < .05$. SC = self-construal

Figure 1*Histogram Showing Frequency of Responses for Individualizing Moral Foundations*

Note. Range of values for this measure is from 1.5 to 5.

Figure 2

Histogram Showing Frequency of Responses for Binding Moral Foundations



Note. Range of values for this measure is 0.35 to 5.

3. Hypothesis Tests

I tested five hypotheses using hierarchical regression: *personal identity*, *social identity*, *additive*, *synergy*, and *mindset moderated*. If the *personal identity hypothesis* is correct, domain-specific personal identity should be a unique positive predictor of moral conviction when controlling for social identity. I should see domain-specific social identity as a unique positive predictor of moral conviction controlling for personal identity if the results support the *social identity hypothesis*. If the results showed that domain-specific personal identity and social identity had independent, positive effects on moral conviction, then this would support the *additive hypothesis*. If the personal identity x social identity interaction was a positive predictor of moral conviction (and a spreading interaction), over and above domain-specific personal identity and social identity by themselves, then the results would support the *synergy hypothesis*.

If the individualistic versus collectivistic mindset of an individual moderates the relationship between moral conviction and domain-specific identity, then the association between moral conviction and identity should change at different levels of the mindset variables (*mindset moderated hypothesis*). Specifically, for the *mindset moderated hypothesis*, at high levels of endorsing individualizing moral foundations (+1 SD above the mean), there should be a stronger positive relationship between domain-specific personal identity and moral conviction, compared to low levels of endorsing individualizing foundations (-1 SD below the mean). The relationship between domain-specific personal identity and moral conviction should be weaker or have no association for high levels of endorsing binding foundations compared to low levels of endorsing binding foundations. At high levels of endorsing individualizing foundations, I should see a weaker association (or no association) between domain-specific social identity and moral conviction, compared to low levels of endorsing individualizing foundations. However, the

positive association between domain-specific social identity and moral conviction should be stronger for high levels of endorsing binding foundations compared to low levels of endorsing binding foundations.

For full support of the *mindset moderated hypothesis*, I would expect to observe all four domain-specific identity x moral foundations interactions to be significant, because this indicates that one's general mindset is consistently impacting the relationship between domain-specific identity and moral conviction. However, if the results showed that the interactions of domain-specific personal identity x individualizing foundations and domain-specific social identity x binding foundations were consistently the only significant interactions, this arguably would also provide support for the *mindset moderated hypothesis*, because these interactions are the most robust examples of emphasis of domain-specific personal identity for those with individualistic mindsets and domain-specific social identity for those with collectivistic mindsets. Each of the three issues should ideally have similar results, because I do not expect issue to moderate the relationship between domain-specific identity and moral conviction based on the results of Study 1. Rather, the issues are included as independent tests of hypotheses across three replications. I do not have predictions about the three-way interactions.

I ran different hierarchical regression models, one set for each issue (see Table XII). Predictors were standardized prior to the regression analyses. Step 1 included control variables (attitude importance, attitude certainty, issue position, and social desirability). In Step 2, domain-specific personal identity and social identity were entered into the model. I entered the two-way interaction terms in Step 3 and the three-way interaction terms in Step 4. I discuss the pattern of results for each issue separately.

Table XII

Hierarchical Regression Results (Standardized Regression Coefficients) for Predicting Moral Conviction Across Issues Controlling for Covariates

	<i>Same-sex marriage</i>				<i>Gun control</i>				<i>Capital punishment</i>			
Predictor	β	$SE \beta$	LL	UL	β	$SE \beta$	LL	UL	β	$SE \beta$	LL	UL
Step 1												
Attitude importance	.29**	.05	.20	.39	.46**	.05	.36	.56	.32**	.06	.21	.44
Attitude certainty	.55**	.05	.46	.64	.33**	.05	.23	.43	.34**	.06	.23	.45
Issue position	-.19**	.04	-.28	-.11	-.06	.04	-.14	.02	-.12*	.04	-.21	-.04
Social desirability	.04	.04	-.04	.12	-.05	.04	-.12	.03	-.10*	.04	-.19	-.02
R^2_{adj}	.49				.55				.38	.38		
Step 2												
Personal identity	.16*	.05	.06	.26	.34**	.05	.25	.44	.30**	.06	.19	.42
Social identity	-.01	.05	-.11	.08	-.03	.04	-.12	.06	-.04	.05	.14	.06
R^2_{adj}	.51				.61				.43			
R^2_{change}	.02				.06				.04			
Step 3												
Individualizing	.09	.05	<.01	.18	.11*	.04	.03	.18	.09*	.05	<.01	.18
Binding	-.04	.05	-.13	.06	-.04	.04	-.12	.03	-.11*	.05	-.20	-.01
Personal identity*Social identity	-.06	.04	-.15	.03	-.12*	.04	-.19	-.04	-.07	.04	-.15	.02
PI x Individualizing	.13*	.05	.04	.23	<.01	.05	-.09	.10	<.01	.05	-.10	.11
PI x Binding	-.04	.05	-.12	.05	.09*	.05	<.01	.18	-.01	.05	-.11	.09
SI x Individualizing	-.09	.05	-.19	<.01	<.01	.05	-.09	.09	<.01	.05	-.10	.10
SI x Binding	-.02	.05	-.12	.07	-.08	.04	-.16	<.01	<.01	.05	-.10	.09
R^2_{adj}	.52				.62				.43			
R^2_{change}	.01				.01				.00			
Step 4												
PI x SI x individualizing	.03	.04	-.04	.10	-.04	.04	-.12	.05	-.04	.05	-.13	.05
PI x SI x binding	.05	.04	-.02	.13	.04	.03	-.02	.10	.02	.04	-.05	.10
R^2_{adj}	.52				.62				.43			
R^2_{change}	.00				.00				.00			

Note. ** $p < .001$, * $p < .01$; PI = domain-specific personal identity and SI = domain-specific social identity. LL = lower limit for 95% CI for β ; UL = upper limit for 95% CI for β . The R^2 change represents the difference between R^2 values of the previous step and the current step (e.g. difference between R^2 in Step 2 versus Step 3). None of the interactions when entered in separately (one at a time) in Step 3 accounted for 1% of the variance or greater in the model.

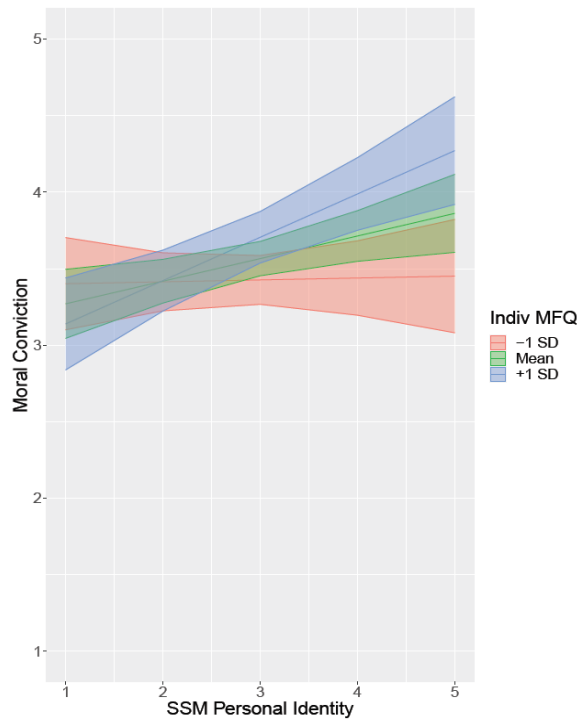


Figure 3. The interaction of domain-specific personal identity and individualizing moral foundations on moral conviction for the issue of same-sex marriage. The graph depicts the variables in raw units. The shading on the lines represents the 95% confidence interval.

a. Same-sex Marriage

For same-sex marriage, domain-specific personal identity was positively associated, whereas domain-specific social identity was unassociated, with moral conviction (replicating the results of Study 1). This supported the *personal identity hypothesis*, such that greater perceived personal identity concerns predicted greater strength of moral conviction. The relationship between domain-specific personal identity and moral conviction, however, was qualified by a domain-specific personal identity x individualizing foundations interaction (see Figure 3). Simple slopes indicated that strength of domain-specific personal identity was not associated with moral conviction at low levels of endorsing individualizing foundations (-1 SD below the mean), $\beta = .01$, $SE = .10$, $t(309) = .15$, $p = .88$. However, greater domain-specific personal identity predicted greater moral conviction about same sex marriage at high levels of

endorsement of individualizing foundations (+1 SD above the mean), $\beta = .36$, $SE = .09$, $t(309) = 3.97$, $p < .001$. In other words, strength of domain-specific personal identity was a stronger predictor of moral convictions about same-sex marriage when people more strongly (vs. weakly) endorsed an individualizing mindset, in partial support of the *mindset moderated hypothesis*.

There was not support for the *social identity* and *additive hypotheses* because there was no association of domain-specific social identity on moral conviction when controlling for domain-specific personal identity. Results were also inconsistent with the *synergy hypothesis* given there was no interaction between domain-specific personal identity and social identity.

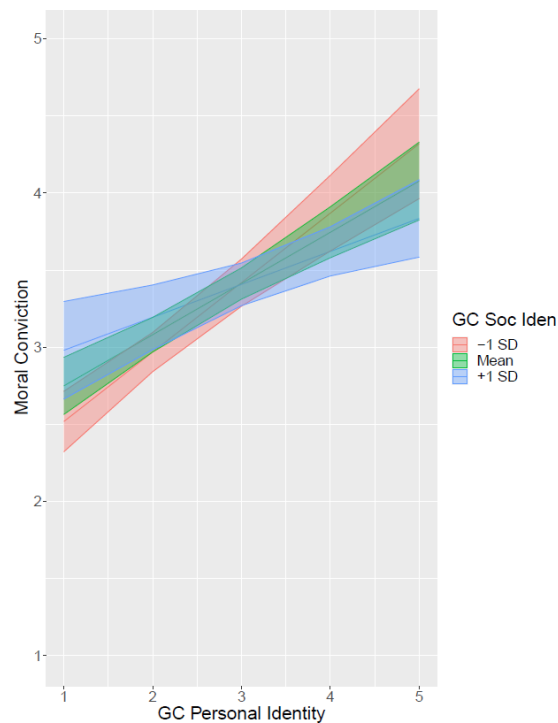


Figure 4. The interaction of domain-specific personal identity and social identity to predict moral conviction for the issue of gun control. The graph is in raw units. The shading on the lines represents the 95% confidence interval.

b. Gun Control

I also replicated the results of Study 1 with the issue of gun control. Stronger domain-specific personal identity, but not domain-specific social identity, was associated with stronger moral convictions about gun control, in support of the *personal identity hypothesis*. The positive

association between domain-specific personal identity and moral conviction was also qualified by two different interactions, a domain-specific personal identity x domain-specific social identity interaction (see Figure 4) and a domain-specific personal identity x binding foundations interaction (see Figure 5).

The personal identity by social identity interaction. Simple slopes analysis revealed that higher domain-specific personal identity reflections were associated with stronger moral convictions about gun control at low levels of domain-specific social identity (-1 SD below the mean), $\beta = .45$, $SE = .06$, $t(310) = 7.29$, $p < .001$. At high levels of domain-specific social identity (+1 SD above the mean), there was still a positive slope for domain-specific personal identity, but it was weaker, $\beta = .21$, $SE = .06$, $t(310) = 3.35$, $p < .001$. Although this interaction is significant, the results did not support the *synergy hypothesis* because the predicted interaction would have needed to show high domain-specific personal identity and high domain-specific social identity associated with the greatest moral conviction rating. The results for gun control also did not support the *additive* or *social identity hypotheses*.

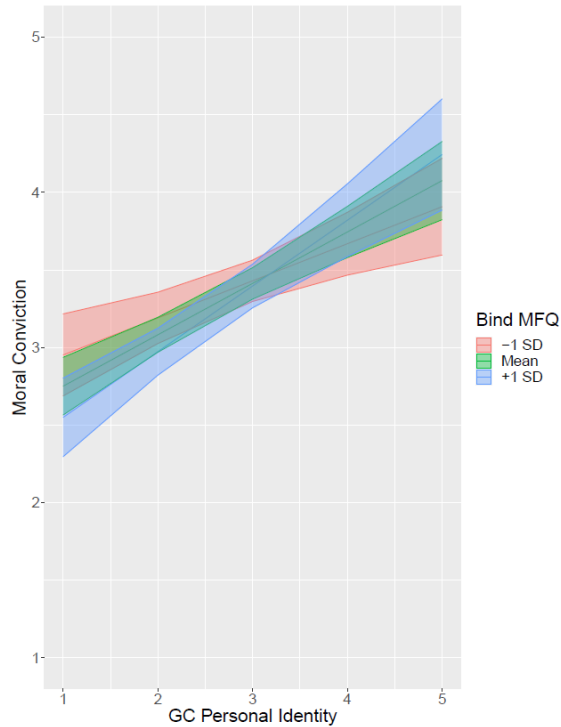


Figure 5. The interaction of domain-specific personal identity and binding moral foundations on moral conviction for the issue of gun control. The graph is in raw units. The shading on the lines represents the 95% confidence interval.

The personal identity by binding foundation interaction. Simple slopes analysis indicated that greater domain-specific personal identity predicted greater moral conviction, but that the relationship was weaker at low levels (-1 SD), $\beta = .24$, $SE = .07$, $t(310) = 3.67$, $p < .001$, compared to high levels of binding foundations endorsement (+1 SD), $\beta = .42$, $SE = .07$, $t(310) = 6.04$, $p < .001$, for the issue of gun control. This result did not support *the mindset moderated hypothesis*.

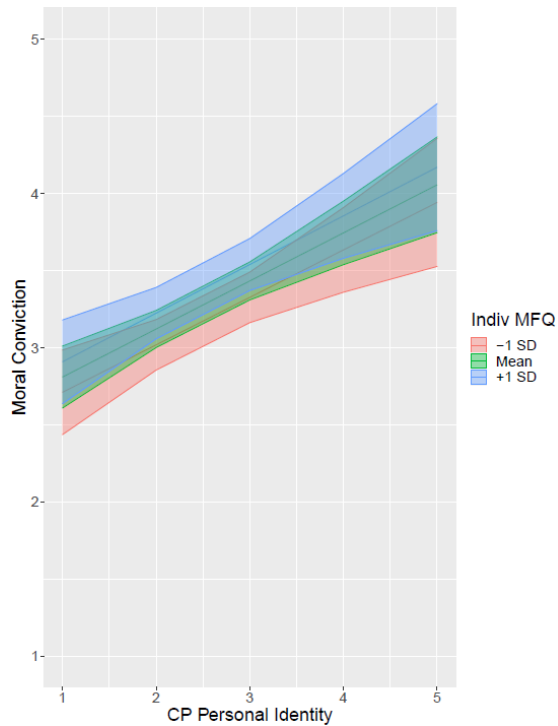


Figure 6. The interaction of domain-specific personal identity and individualizing moral foundations on moral conviction for the issue of capital punishment. The graph is in raw units. The shading on the lines represents the 95% confidence interval. The graph depicts the main effect of domain-specific personal identity on moral conviction, as the interaction was not significant.

c. Capital Punishment

Also replicating Study 1 and consistent with the *personal identity hypothesis*, domain-specific personal identity was a unique positive predictor of moral conviction on the issue of capital punishment. When controlling for domain-specific personal identity, there was no effect of domain-specific social identity on moral conviction, so the results were inconsistent with the *social identity hypothesis* and the *additive hypothesis*. None of the interactions were significant (see Figure 6 for example), so the results did not support the *synergy hypothesis* and *mindset moderated hypothesis*.

d. Robustness Checks

To investigate how robust support for the *personal identity hypothesis* was, I ran a variety of analyses that consisted of different versions of regression models. Domain-specific personal identity was a stronger predictor than domain-specific social identity even when not controlling for covariates (see Table XXV). When using self-construal instead of the Moral Foundations Questionnaire to operationalize mindset (see Table XXVI), the effect of domain-specific personal identity across issues was significant, and there was no significant domain-specific identity x mindset interactions. When the full hierarchical regression model, using the same covariates and predictors as in Table XII (attitude strength indicators, issue position, social desirability, domain-specific personal identity and social identity, and mindset), was run without data exclusions (see Table XXVII), domain-specific personal identity was still a significant predictor for moral conviction, whereas domain-specific social identity was not.

I also investigated whether the *personal identity hypothesis* would be supported using response times for the domain-specific identity subscales instead of the items. If domain-specific personal identity is more strongly related to moral conviction than domain-specific social identity, reaction times for answering the domain-specific personal identity items should be faster than when answering domain-specific social identity items. I analyzed whether the reaction times for domain-specific personal versus social identity were significantly different using an independent samples t-test. However, because the reaction time (RT) data was skewed, a common occurrence when dealing with RT, I first used a log transform on the RT versions of the identity subscales prior to conducting the t-tests. I conducted t-tests for each issue. As seen in Table XXVIII, the results indicated that across all three issues, the RT for domain-specific personal identity was significantly faster than for domain-specific social identity. I also ran

regression analyses with RT instead of domain-specific identity scale items as predictors of moral conviction (see Table XXIX). However, when using RT as the predictors in a regression model predicting strength of moral conviction, there was no effect of domain-specific personal identity across issues. Interestingly, for capital punishment, domain-specific social identity was a significant predictor of moral conviction, but this result was not replicated across the other issues. Thus, support for the *personality identity hypothesis* was robust, even though domain-specific personal identity was not the strongest predictor of moral conviction overall (i.e., dimensions of attitude strength were stronger predictors than personal identity).

C. Discussion

The results of Study 2 replicated the Study 1 support for the *personal identity hypothesis* across three issues, such that perceptions of domain-specific personal identity concerns on a specific issue were positively associated with greater moral conviction on that same issue. This finding was also robust to controls of attitude certainty, attitude importance, issue position, and social desirability. There was nearly no support for the *mindset moderated hypothesis*. Even when taking mindset into account, I still did not find support for the *social identity, additive, or synergy hypotheses*. When considered in isolation, domain-specific social identity concerns predicted moral conviction, but this effect disappeared when controlling for people's self-reported domain-specific personal identity concerns (see Tables XXX and XXXI). Besides the robust positive relationship between domain-specific personal identity and moral conviction, all other patterns of results were inconsistently observed across issues.

The relationship between domain-specific personal identity and moral conviction is consistent with the idea that moral convictions serve to help individuals maintain their sense of authenticity and help them to act more autonomously rather than letting external forces motivate

their actions. Moral convictions may also be held as strong personal possessions. Activating one's sense of domain-specific personal identity could help to moralize an attitude and moral convictions could potentially be used as a way to buffer self-threats.

Given the inconsistent mindset-related results across issues, it seems that mindset does not impact domain-specific identity concerns in a meaningful way in a moral context. Future work could examine whether domain-specific identity influences mindset accessibility instead of vice versa and other potential boundary conditions for the relationship between moral conviction and domain-specific identity. Additionally, although more of the variance in moral conviction is accounted for in the Study 2 regression models than was observed in Study 1, there is still variance left unaccounted for. Future research should test other possible reasons besides domain-specific identity concerns for why people are motivated to attach moral significance to attitudes.

IV. GENERAL DISCUSSION

Across two studies, there was robust support for the *personal identity hypothesis*. People who perceived an attitude to be more reflective of their domain-specific personal identity concerns also perceived the same attitude as a stronger moral conviction. This pattern of results held even after controlling for domain-specific social identity, attitude importance and certainty, social desirability, and mindset. The *social identity or additive hypotheses* were not supported. Though there were several significant interactions in Study 2 between domain-specific personal identity and other factors, these interactions explained less than 1% of the variance in moral conviction and did not show consistent patterns across issues. Moreover, the pattern of observed interactions was inconsistent with both the *mindset moderated* and the *synergy hypotheses*. The individualistic versus collectivistic mindset did not have an important moderating effect on the relationship between domain-specific personal identity and moral conviction, regardless of how mindset was operationalized (i.e., whether it was operationalized as the individualizing or binding moral foundations, or as independent versus interdependent self-construal).

The current studies have several important strengths. The design of the studies provided built-in replications across three issues and two samples. Finding consistent patterns of results with multiple replications provides greater confidence of the robustness of the relationship between domain-specific personal identity and moral conviction. Additionally, as mentioned previously, the positive relationship between domain-specific personal identity and moral conviction held even after controlling for other attitude strength indices (attitude importance and certainty), stance on the issue, social desirability, and mindset (individualistic and collectivistic), which further bolsters confidence in the stability of this finding. I also used new measures of domain-specific personal identity and social identity bases of attitudes that I created, and these

measures were found to have good reliability and validity. The domain-specific identity measures will be helpful for future research that centers around metacognitive perceptions of attitudes and identity-based concerns of attitudes.

The findings of the current studies help to expand knowledge about identity and moral conviction by providing counter evidence to previous work that emphasized how moral conviction connects to social identity, without testing the possibility that personal identity may also (or instead) play a dominant role in explaining the basis of moral convictions (e.g. van Zomeren et al., 2012). When taking the possible role of domain-specific personal identity into account, I found that domain-specific personal identity has stronger connections to moral conviction than people's domain-specific social identity. Rather than reflecting social identity concerns, moral convictions appear to be held as strong personal possessions and reflect how one's core moral beliefs are a key aspect of personal identity. In other words, the relationship between domain-specific personal identity and moral conviction implies that moral beliefs may be more tied to consistency and authenticity with oneself than with people's sense of belonging to a group. The robust relationship suggests that perhaps one's individual moral beliefs are more likely to drive people to choose their groups (e.g. a person has specific moral beliefs and this guides which groups are sought out and which beliefs are presented to the group), rather than group memberships leading people to adopt moral beliefs (Ellemers, 2017).

Knowing that moral convictions are more strongly related to domain-specific personal identity concerns than domain-specific social identity concerns has implications for what leads attitudes to become moralized in the first place, and potentially for how people navigate threats to the self. Understanding how to strengthen moral attachment to one's attitudes is important, because moral attitudes have unique consequences such as increased willingness to vote and

increased ability to buffer against group influence or conformity. Previous studies on moralization have found success with affective mechanisms for increasing moral conviction on an issue (e.g. Wisneski & Skitka, 2016), but cognitive routes to moralization have also been examined (Feinberg et al., 2019). The results of the current studies suggest that persuasive messages that make the personal identity implications of an attitude position more salient may increase people's strength of moral conviction about that attitude object. Using domain-specific personal identity to increase strength of moral conviction could potentially moralize an issue via conscious cognitive processes. Another interesting implication of the current work relates to threats to the self, specifically in moral contexts. A relationship between domain-specific personal identity and moral conviction suggests that one possible reason for having feelings of guilt when one chooses not to defend a moral conviction is that they feel like they let themselves down (Strohming & Nichols, 2014). In other words, failing to defend a moral conviction interferes with their personal authenticity (e.g. being the person they want to be). In a related vein, engaging in value-affirmation techniques (Skitka, Bauman, & Mullen, 2004) that are specific towards affirming moral convictions or reminding oneself of a time they acted according to their moral convictions may buffer threats to people's self-image.

One could argue that the observed support for the *personal identity hypothesis* over the *mindset moderated hypothesis* might be inevitable because hypotheses were tested in a single cultural context, moreover, one that tends to emphasize individualism over collectivism, and therefore is a context that would be likely to favor personal over social identity concerns. There are a number of reasons, however, for nonetheless trusting the conclusions against the *mindset moderated hypothesis*. First, there was large variability in the ethnic backgrounds of participants: Participants were primarily non-white (73.14%), of first- or second-generation immigrant status

(82.77%), and spoke languages at home other than English (48.77% Non-English monolingual) or were bilingual (19.02% English + second language). Second, as seen in the histograms for individualizing and binding foundations (Figures 1 and 2), there was considerable variability in the individualistic and collectivistic mindsets reported by our participants. Although it would be desirable to test the generalizability of our findings in other cultural contexts, there was enough variance in the mindset orientation to at least shift the burden of proof to those who would argue that moral convictions are more strongly associated with people's sense of social rather than their personal identity.

One could also argue that people may not be able to accurately report the degree to which their attitudes are related to either aspects of morality or domain-specific identity. People may not always have sufficient ability, knowledge, or insight to accurately and reliably report their motivations for why they believe something or act in a certain manner (Nisbett & Wilson, 1977; McClelland, 1980). However, in the current studies, I was specifically interested in people's meta-cognitions (i.e., I asked participants to provide insight about whether their attitude on a given object is related to personal and social identity concern), not explanations for these meta-cognitions. Participants are capable of providing an assessment of strength of moral conviction and domain-specific identity perceptions, even if they may not have insight into *why* an attitude reflects either their moral convictions or aspects of their domain-specific identity. Future studies may want to examine why this relationship between domain-specific personal identity and moral conviction exists in more detail and to unpack the causal direction of this relationship. In other words, what comes first—a meta-cognition that an attitude is identity-relevant or a meta-cognition that reflects a moral conviction? An initial way to tackle this question would be to manipulate identity salience and measure moral conviction as the outcome. If domain-specific

personal identity or social identity salience are manipulated and the results indicate that domain-specific personal identity leads to stronger moral conviction, then this would be evidence that domain-specific personal identity relevance can cause variation in strength of moral conviction.

One last point to address is that although the relationship between domain-specific personal identity and moral conviction is reliable, it is smaller in predictive power relative to other attitude strength variables. Domain-specific personal identity is more strongly related to moral conviction than domain-specific social identity, but overall, it is a weaker predictor of moral conviction than attitude importance and certainty (the other two attitude strength indicators included in the current studies). This may be because domain-specific personal and social identity contribute to attitude centrality, but attitude centrality is comparatively weak in predicting moral conviction, aligning with another previous finding (e.g. Skitka et al., 2005). The current studies thus suggest that attitude centrality may not be as relevant for understanding moral convictions compared to dimensions like certainty and importance.

V. CONCLUSION

The current studies expand our understanding of moral conviction and identity by establishing domain-specific personal identity as a reliable predictor of moral conviction, a result that was consistent across multiple issues, samples, and controlling for a variety of covariates. This work provides evidence that domain-specific personal identity, rather than domain-specific social identity, may be an important motivator of moral conviction, even if it may not be the primary motivator, because the relative predictive power of domain-specific personal identity compared to other attitude strength indicators was smaller. Establishing a relationship between domain-specific personal identity and moral conviction has important implications for moralizing a new issue and understanding more about threats to the self. The reliable relationship between domain-specific personal identity and moral conviction may indicate that moral beliefs and personal identity are intertwined to an extent in an individual and work together to maintain authenticity of the self. The connection between domain-specific personal identity and moral conviction on an issue may also help explain why an individual is more likely to use strong moral convictions as an internalized mechanism to dictate one's actions and thoughts as opposed to relying on externalized forces like authority figures or groups.

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APPENDICES

Appendix A

Study Questionnaires

Please answer the following questions related to your attitudes on **the legalization of same-sex marriage/about allowing citizens to carry concealed weapons (i.e., guns) in Illinois, or what is known as "conceal/carry"/ capital punishment (in other words, the death penalty for serious crimes).**

Attitude position

Do you support or oppose **the legalization of same-sex marriage/ allowing conceal/carry in Illinois/capital punishment?**

- ☐ Support
- ☐ Neutral/Uncertain
- ☐ Oppose

[If select support for their attitude position]:

How strongly do you support the **[legalization of same-sex marriage]**?

- ☐ Slightly
- ☐ Moderately
- ☐ Much
- ☐ Very Much

[If select oppose for their attitude position]:

How strongly do you oppose the **[legalization of same-sex marriage?]**

- ☐ Slightly
- ☐ Moderately
- ☐ Much
- ☐ Very Much

[If select neutral/uncertain about their attitude position]:

Do you lean towards supporting or opposing the **[legalization of same-sex marriage]**?

- ☐ Lean towards supporting
- ☐ Neutral
- ☐ Lean towards opposing

Attitude Strength

To what extent is your position on **legalizing same-sex marriage...**

	Not at all	Slightly	Moderately	Much	Very Much
Something you are certain about?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Connected to your beliefs about fundamental right and wrong?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Something that you care a lot about?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personally important to you?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A reflection of your core moral beliefs and convictions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Something you are sure you are correct about?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A reflection of your religious beliefs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Domain-Specific Identity Scale: Personal identity subscale

* next to item indicates it was dropped from analyses

To what extent does your attitude on [legalizing same-sex marriage] reflect the following?

	Not at all reflected	Slightly reflected	Moderately reflected	Much reflected	Very much reflected
My sense of who I am as a person	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My true self	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The real me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My core self	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Who I am as a person	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My core values and moral standards*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My own personal well-being and self-esteem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Important part of who I am	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My ideas of right and wrong*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My ideas about what kind of person I really am	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My private opinions of myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My internal guiding principles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Domain-Specific Identity Scale: Social identity subscale

* next to item indicates it was dropped from analyses

To what extent does your attitude on [legalizing same-sex marriage] reflect the following?

	Not at all reflected	Slightly reflected	Moderately reflected	Much reflected	Very much reflected
How I feel about important others in my life*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My desire to maintain close relationships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My desire to avoid unnecessary conflict with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A signal to others that I am a good group member	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Values of the group of people most important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Core values and moral standards of the group of people most important to me*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My identification with central groups in my life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My desire to avoid being rejected by others who are important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reputation (what others think of me)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feelings of connectedness with those who I am close to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Relationships with those I feel close to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External factors that guide my principles and values*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Domain-Specific Identity Scale Validation Measures (Study 1 ONLY)

I would feel a personal loss if I didn't hold my attitude towards [legalizing same-sex marriage].

- ☐ Not at all
- ☐ Slightly
- ☐ Moderately
- ☐ Much
- ☐ Very much

I wouldn't know who I was if I gave up my attitude on [legalizing same-sex marriage].

- ☐ Not at all
- ☐ Slightly

- ☐ Moderately
- ☐ Much
- ☐ Very much

My group would reject me if I gave up my attitude on legalizing same-sex marriage.

- ☐ Not at all
- ☐ Slightly
- ☐ Moderately
- ☐ Much
- ☐ Very much

To what extent is having the right attitude about legalizing same-sex marriage a defining feature of the groups you belong to?

- ☐ Not at all
- ☐ Slightly
- ☐ Moderately
- ☐ Much
- ☐ Very much

Do you hold this attitude on legalizing same-sex marriage because it reflects something unique about you as a person, or because it reflects something unique about a group that is important to you?

- ☐ Unique to me
- ☐ Moderately unique to me
- ☐ Slightly unique to me
- ☐ Slightly unique to my group
- ☐ Moderately unique to my group
- ☐ Unique to my group

When thinking about legalizing same-sex marriage, do you typically think about your stance in terms of its importance to I/me or us/we?

- ☐ Very much I/me
- ☐ Moderately I/me
- ☐ Slightly I/me
- ☐ Slightly us/we
- ☐ Moderately us/we
- ☐ Very much us/we

Self-Construal Scale (STUDY 2 ONLY)

This questionnaire measures your responses to various situations. Listed below are a number of statements. Rate how much you agree or disagree with each statement by selecting the number that best matches your agreement or disagreement. Please respond to every statement.

	1- Strongly disagree	2	3	4	5	6	7- Strongly agree
It is important to me to respect decisions made by the group.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My personal identity, independent of others, is very important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is important for me to maintain harmony within my group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I act the same way at home that I do at school (or work).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I usually go along with that others want to do, even when I would rather do something different.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Social Desirability Scale (STUDY 2 ONLY)

Please read each item and decide whether it is true or false for you. Try to work rapidly and answer each question.

	True	False
It is sometimes hard for me to go on with my work if I am not encouraged.	<input type="checkbox"/>	<input type="checkbox"/>
I sometimes feel resentful when I don't get my way.	<input type="checkbox"/>	<input type="checkbox"/>
On a few occasions, I have given up doing something because I thought too little of my ability.	<input type="checkbox"/>	<input type="checkbox"/>
There have been times when I felt like rebelling against people in authority even though I knew they were right.	<input type="checkbox"/>	<input type="checkbox"/>
No matter who I'm talking to, I'm always a good listener.	<input type="checkbox"/>	<input type="checkbox"/>

	True	False
There have been occasions when I took advantage of someone.	<input type="checkbox"/>	<input type="checkbox"/>
I'm always willing to admit when I make a mistake.	<input type="checkbox"/>	<input type="checkbox"/>
I sometimes try to get even rather than forgive and forget.	<input type="checkbox"/>	<input type="checkbox"/>
I am always courteous, even to people who are disagreeable.	<input type="checkbox"/>	<input type="checkbox"/>

Whether or not an action caused chaos or disorder						
---	--	--	--	--	--	--

[illegible]

I think everyone should be free to do as they choose, so long as they don't infringe upon the equal freedom of others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
People should be free to decide what group norms or traditions they themselves want to follow.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reaction Time for Domain-Specific Identity Subscales (STUDY 2 ONLY)

Page Submit:

Qualtrics-generated page submit variable, or how many total seconds passed before the participant clicks the Next button (i.e. the total amount of time the participant spends on the page)

Demographic Questions (only questions that were referred to in Study 2 analyses):

Gender

With what gender do you most closely identify?

- ☐ Male
- ☐ Female
- ☐ Other/rather not say

Ethnicity

With what ethnicity do you most closely identify?

- ☐ White
- ☐ Black or African American
- ☐ Native Hawaiian or Alaska Native
- ☐ Latino/a
- ☐ Asian/Asian American
- ☐ Pacific Islander
- ☐ Biracial/Multiracial
- ☐ Other _____

Immigration Generation Status

We are interested in gathering information about immigration generational status. First-generation refers to a person who lives in the United States but was born outside the United States or U.S. territories. Second-generation refers to a person who has at least one immigrant parent. Third- and higher-generation refers to a person who is the child of U.S.-born parents. What is your immigrant generational status?

- ☐ First-generation
- ☐ Second-generation
- ☐ Third- and higher- generation

Country of Origin

[If selected first-generation for generation status]:
What country are you originally from? _____

[If selected second-generation for generation status]:
What country are your parents originally from? _____

Language at Home

What language is spoken at home? _____

Appendix B

Other Measures (collected but not included in current manuscript)

Domain-Specific Identity Scale: Utilitarian subscale

To what extent does your attitude on **[legalizing same-sex marriage]** reflect the following?

	Not at all reflected	Slightly reflected	Moderately reflected	Much reflected	Very much reflected
My personal interests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Something I want, need, or should need	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My best interests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Important consequences for me (e.g. benefit or harm)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Important consequences for my group (e.g. benefit or harm to group to which I belong)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Achieving wanted or avoiding unwanted consequences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Demographics

Please answer the following demographic questions.

What is your age? _____

What is the highest level of education you have achieved?

- ☐ Less than high school
- ☐ High school graduate
- ☐ Some college
- ☐ Associate's degree
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Professional degree
- ☐ Doctoral degree

Religiosity

To what extent do the following statements apply to you?

	Not at all	Slightly	Moderately	Much	Very Much

My religious faith is extremely important to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My religious faith impacts many of my decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I look to my faith for meaning and purpose in life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What is your political party identification?

- ☐ Republican
- ☐ Moderate
- ☐ Democrat

[If select Republican for political party identification]:

To what extent are you a Republican?

- ☐ Slightly
- ☐ Moderately
- ☐ Very

[If select Democrat for political party identification]:

To what extent are you a Democrat?

- ☐ Slightly
- ☐ Moderately
- ☐ Very

[If select Moderate for political party identification]:

Do you lean towards Democrat or Republican?

- ☐ Lean towards Democrat
- ☐ Moderate
- ☐ Lean towards Republican

What is your political orientation?

- ☐ conservative
- ☐ liberal
- ☐ neutral

[If selected conservative for political orientation]:

Liberal (label weird but correct flow) To what extent are you conservative?

- ☐ Slightly
- ☐ Moderately
- ☐ Very

[If selected liberal for political orientation]:

Conserv (label weird but correct flow) To what extent are you liberal?

- ☐ Slightly
- ☐ Moderately

- ☐ Very

[If selected neutral for political orientation]:

Do you lean towards liberal or conservative?

- ☐ Lean towards liberal
☐ Neutral
☐ Lean towards conservative

What is your religious preference?

- ☐ Christian
☐ Jewish
☐ Muslim
☐ Hindu
☐ Buddhist
☐ Unitarian
☐ Agnostic
☐ Atheist
☐ Not religious
☐ Other _____

Attention Check at Time 1 (STUDY 2 ONLY)

What is the topic of this study? Sometimes participants do not carefully read the instructions. To correctly answer this question, please select the option “other” and write down the name of your favorite movie.

- ☐ Values
☐ Shopping preferences
☐ I don't remember
☐ Other (please specify) _____

Attention Check at Time 2 (STUDY 2 ONLY)

What is the topic of this study? Sometimes participants do not carefully read the instructions. To correctly answer this question, please select the option "other" and write down the name of your favorite food.

- ☐ Political issues
☐ Shopping preference
☐ I don't remember
☐ Other (please specify: _____)

Appendix C
Supplemental Tables

Table XIII

Hierarchical Regression Results (Standardized Coefficients) for Predicting Moral Conviction Across Issues Controlling for Covariates (No Data Exclusions)

Predictor	<i>Same-sex marriage</i>				<i>Gun control</i>				<i>Capital punishment</i>			
	<i>B</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>
Step 1												
Attitude importance	.35**	.04	.27	.44	.57**	.05	.47	.68	.44**	.05	.34	.55
Attitude certainty	.59**	.05	.50	.68	.27**	.05	.16	.37	.37**	.05	.27	.48
Issue position	-.17**	.04	-.24	-.10	<-.01	.04	-.07	.07	<-.01	.04	-.08	.07
<i>R</i> ² _{adj}	.66				.63				.58			
Step 2												
Personal identity	.19**	.05	.10	.29	.18**	.05	.08	.28	.27**	.05	.17	.37
Social identity	-.02	.04	-.10	.06	-.01	.04	-.10	.07	-.13*	.05	-.22	-.04
<i>R</i> ² _{adj}	.68				.64				.61			
Step 3												
Personal identity*Social identity	<-.01	.03	-.07	.06	-.06	.03	-.13	<.01	-.08*	.04	-.15	-.01
<i>R</i> ² _{adj}	.67				.65				.61			

**p < .001, *p < .05

Table XIV

Hierarchical Regression Results (Standardized Coefficients) for Predicting Moral Conviction in Different Attitude Domains Without Controlling for Covariates (No Data Exclusions)

Predictor	<i>Same-sex marriage</i>				<i>Gun control</i>				<i>Capital punishment</i>			
	<i>B</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>
Step 1												
Personal identity	.62**	.05	.51	.73	.62**	.06	.51	.73	.60**	.06	.49	.71
Social identity	.05	.05	-.06	.15	.12	.06	-.10	.12	.22	.06	-.09	.13
R^2_{adj}	.42				.39				.37			
Step 2												
Personal identity*Social identity	-.08	.04	-.16	.01	-.10*	.04	-.19	-.01	-.04	.05	-.13	.05
R^2_{adj}	.43				.40				.37			

Note: ** $p < .001$, * $p < .05$. LL = lower limit for 95% CI for β ; UL = upper limit for 95% CI for β .

Table XV*Average Factor Loadings of Domain-specific Identity Items Across Issues Using Promax Rotation*

Variable	Factor 1: Personal identity	Factor 2: Social identity
My sense of who I am as a person	.930	
My true self	.999	
The real me	1.012	
My core self	.999	
Who I am as a person	.978	
My own personal well-being and self-esteem	.708	
Important part of who I am	.793	
My ideas about what kind of person I really am	.858	
My private opinions of myself	.664	
My internal guiding principles	.738	
My desire to maintain close relationships		.760
My desire to avoid unnecessary conflict with others		.752
A signal to others that I am a good group member		.773
Values of the group of people most important to me		.728
My identification with central groups in my life		.738
My desire to avoid being rejected by others who are important to me		.921
Reputation (what others think of me)		.811
Feelings of connectedness with those who I am close to		.891
Relationships with those I feel close to		.831

Table XVI*Average Factor Loadings of Domain-specific Identity Items Across Issues Using Varimax Rotation*

Variable	Factor 1: Personal identity	Factor 2: Social identity
My sense of who I am as a person	.868	
My true self	.916	
The real me	.919	
My core self	.914	
Who I am as a person	.895	
My own personal well-being and self-esteem	.706	
Important part of who I am	.783	
My ideas about what kind of person I really am	.817	
My private opinions of myself	.675	
My internal guiding principles	.706	
My desire to maintain close relationships		.747
My desire to avoid unnecessary conflict with others		.696
A signal to others that I am a good group member		.750
Values of the group of people most important to me		.732
My identification with central groups in my life		.735
My desire to avoid being rejected by others who are important to me		.808
Reputation (what others think of me)		.721
Feelings of connectedness with those who I am close to		.837
Relationships with those I feel close to		.802

Table XVII*Correlations Between Domain-specific Personal Identity and Social Identity Subscales Varying by Rotation Type**Promax rotation and weighted subscales using averaged loadings across issue:*Capital punishment PI and SI: $r = .59^{**}$ ($p < .001$)Gun control PI and SI: $r = .56^{**}$ ($p < .001$)Same-sex marriage PI and SI: $r = .55^{**}$ ($p < .001$)*Varimax rotation and weighted subscales using averaged loadings across issue:*Capital punishment PI and SI: $r = .59^{**}$ ($p < .001$)Gun control PI and SI: $r = .57^{**}$ ($p < .001$)Same-sex marriage PI and SI: $r = .56^{**}$ ($p < .001$)*Varimax rotation but no averaged loadings across issue (Repeat of values in current document):*Capital punishment PI and SI: $r = .60^{**}$ ($p < .001$)Gun control PI and SI: $r = .58^{**}$ ($p < .001$)Same-sex marriage PI and SI: $r = .56^{**}$ ($p < .001$)

Note. PI = domain-specific personal identity and SI = domain-specific social identity

Table XVIII*Factor Loadings from EFA with Promax Rotation Across Issues using Averaged Factor Loadings*

	Same-sex marriage		Gun control		Capital punishment	
	Factor 1: Personal Identity	Factor 2: Social identity	Factor 1: Personal Identity	Factor 2: Social identity	Factor 1: Personal Identity	Factor 2: Social identity
Eigenvalue	12.47	3.22	12.90	3.12	13.69	3.06
% Variance	38.80	27.00	39.20	29.50	37.40	34.00
My sense of who I am as a person	.94		.92		.94	
My true self	1.02	-.13	.99		.99	
The real me	1.03	-.18	1.01	-.12	.99	
My core self	1.01	-.13	1.01	-.12	.97	
Who I am as a person	.94		1.02	-.18	.97	
My own personal well-being and self-esteem	.73	.10	.71		.69	.17
Important part of who I am	.82		.82		.75	.16
My ideas about what kind of person I really am	.86		.84		.88	
My private opinions of myself	.65		.65	.21	.70	.13
My internal guiding principles	.67		.77		.78	
How I feel about important others in my life	.49	.31	.32	.42	.27	.55
My desire to maintain close relationships	.15	.70	.12	.75		.83
My desire to avoid unnecessary conflict with others		.77		.62		.87
A signal to others that I am a good group member		.68		.84		.79
Values of the group of people most important to me	.16	.65	.11	.78	.13	.75
My identification with central groups in my life	.20	.65	.12	.76		.81
My desire to avoid being rejected by others who are important to me	-.23	.88	-.25	.95	-.14	.94
Reputation (what others think of me)	-.18	.74	-.21	.87		.82
Feelings of connectedness with those who I am close to		.86		.90		.91
Relationships with those I feel close to		.83	.15	.71		.95

External factors that guide my principles and values	.13	.59	.42	.32	.31	.38
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Table XIX

Regression Results (Standardized Coefficients) for Predicting Domain- and Non-domain-specific Moral Conviction Using Same-sex Marriage Identity Predictors

	<i>Same-sex marriage</i>				<i>Gun control</i>				<i>Capital Punishment</i>			
Predictor	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>
SSM Personal identity	.67**	.06	.55	.78	.21*	.08	.07	.36	.22*	.08	.07	.37
SSM Social identity	-.02	.06	-.13	.10	.14	.08	-.01	.28	.01	.08	-.14	.17
<i>R</i> ² _{adj}	.43				.09				.04			

Note. **p < .001, *p < .05. SSM = same-sex marriage, MC = moral conviction, Cap. Punish = capital punishment. LL = lower limit for 95% CI for β; UL = upper limit for 95% CI for β.

Table XX

Regression Results (Standardized Coefficients) for Predicting Domain- and Non-domain-specific Moral Conviction Using Gun Control Identity Predictors

	<i>Same-sex marriage</i>				<i>Gun control</i>				<i>Capital punishment</i>			
Predictor	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>
GC Personal identity	.10	.08	-.05	.26	.69**	.06	.59	.81	.22*	.08	.07	.37
GC Social identity	.05	.08	-.11	.20	-.03	.06	-.14	.09	.13	.08	-.02	.28
<i>R</i> ² _{adj}	.01				.46				.09			

Note. **p < .001, *p < .05. GC = gun control. LL = lower limit for 95% CI for β; UL = upper limit for 95% CI for β.

Table XXI

Regression Results (Standardized Coefficients) for Predicting Domain- and Non-domain-specific Moral Conviction Using Capital Punishment Identity Predictors

	<i>Same-sex marriage</i>				<i>Gun control</i>				<i>Capital punishment</i>			
Predictor	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>
CP Personal identity	.22*	.08	.06	.38	.31**	.08	.16	.46	.58**	.06	.45	.71
CP Social identity	-.09	.08	-.24	.07	.04	.08	-.11	.19	.05	.06	-.08	.18
<i>R</i> ² _{adj}	.03				.10				.37			

Note. *p < .05 and ** p < .001. CP = capital punishment. LL = lower limit for 95% CI for β; UL = upper limit for 95% CI for β.

Table XXII

Hierarchical Regression Results (Standardized Coefficients) Predicting Moral Conviction Controlling for Covariates

	<i>Same-sex marriage</i>				<i>Gun control</i>				<i>Capital punishment</i>			
Predictor	<i>B</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE</i>	<i>LL</i>	<i>UL</i>
Step 1												
Attitude importance	.38**	.05	.27	.48	.55**	.06	.43	.67	.44**	.06	.32	.56
Attitude certainty	.55**	.05	.44	.65	.28**	.06	.15	.40	.37**	.06	.24	.49
Issue position	-.19**	.04	-.28	-.11	-.01	.04	-.09	.07	-.01	.04	-.10	.07
<i>R</i> ² _{adj}	.62				.61				.56			
Step 2												
Personal identity	.25**	.06	.13	.37	.27**	.06	.14	.39	.26**	.06	.14	.38
Social identity	-.04	.05	-.13	.06	-.01	.05	-.11	.08	-.08	.05	-.18	.03
<i>R</i> ² _{adj}	.64				.64				.59			
Step 3												
Personal identity*Social identity	.02	.04	-.06	.10	-.06	.05	-.15	.03	-.07	.05	-.16	.02
<i>R</i> ² _{adj}	.64				.64				.59			

Note. *p < .05, ** p < .001. LL = lower limit for 95% CI for β; UL = upper limit for 95% CI for β

Table XIII*Linear Regression Results (Standardized Coefficients) for Predicting Domain-specific Moral Conviction*

Predictor	Same-sex marriage MC				Gun control MC				Capital punishment MC			
	<i>B</i>	<i>SE B</i>	<i>LCL</i>	<i>UCL</i>	<i>B</i>	<i>SE B</i>	<i>LCL</i>	<i>UCL</i>	<i>B</i>	<i>SE B</i>	<i>LCL</i>	<i>UCL</i>
Personal identity	.66**	.05	.56	.75	.68**	.05	.58	.77	.61**	.05	.51	.71
<i>R</i> ² _{adj}	.43				.46				.37			

Note. ** $p < .001$. LL = lower limit for 95% CI for β ; UL = upper limit for 95% CI for β

Table XXIV*Linear Regression Results (Standardized Coefficients) for Predicting Domain-specific Moral Conviction*

Predictor	Same-sex marriage MC				Gun control MC				Capital punishment MC			
	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>
Social identity	.36**	.06	.24	.48	.37**	.06	.25	.49	.40**	.06	.28	.51
<i>R</i> ² _{adj}	.13				.14				.15			

Note. ** $p < .001$. LL = lower limit for 95% CI for β ; UL = upper limit for 95% CI for β

Table XXV*Hierarchical Regression Results (Standardized Coefficients) Predicting Moral Conviction Without Controlling for Covariates*

Predictor	Same-sex marriage				Gun control				Capital punishment			
	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>
Step 1												
Personal identity	.46**	.06	.35	.57	.63**	.05	.52	.73	.54**	.06	.43	.65
Social identity	.05	.06	-.06	.16	.05	.05	-.05	.16	.02	.06	-.09	.13
<i>R</i> ² _{adj}	.24				.43				.30			
Step 2												
Personal identity x Social Identity	-.03	.05	-.12	.06	-.13*	.04	-.21	-.05	-.09*	.04	-.18	<-.01
<i>R</i> ² _{adj}	.23				.44				.30			

Note. * $p < .05$, ** $p < .001$. LL = lower limit for 95% CI for β ; UL = upper limit for 95% CI for β

Table XXVI

Hierarchical Regression Results (Standardized Coefficients) for Predicting Moral Conviction Across Issues Controlling for Covariates using Self-Construal as Mindset Operationalization

	<i>Same-sex marriage</i>				<i>Gun control</i>				<i>Capital punishment</i>			
Predictor	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>
Step 1												
Attitude importance	.29**	.05	.20	.39	.46**	.05	.36	.56	.32**	.06	.21	.44
Attitude certainty	.55**	.05	.46	.64	.33**	.05	.23	.43	.34**	.06	.23	.45
Issue position	-.19**	.04	-.28	-.11	-.06	.04	-.14	.01	-.12*	.04	-.21	-.04
Social desirability	.04	.04	-.04	.12	-.05	.04	-.12	.02	-.11*	.04	-.19	-.02
<i>R</i> ² _{adj}	.49				.55				.38			
Step 2												
Personal identity	.16*	.05	.06	.26	.34**	.05	.25	.44	.30**	.06	.19	.42
Social identity	-.01	.05	-.11	.08	-.03	.04	-.12	.06	-.04	.05	-.14	.06
<i>R</i> ² _{adj}	.51				.61				.43			
Step 3												
Independent SC	.06	.04	-.03	.14	.07	.04	<-.01	.14	-.02	.05	-.12	.07
Interdependent SC	-.05	.04	-.13	.03	.05	.04	-.02	.13	-.01	.05	-.11	.08
PI*SI	-.04	.04	-.12	.04	-.09*	.03	-.16	-.03	-.07	.04	-.15	.01
PI x Independent	-.04	.05	-.14	.05	<-.01	.04	-.09	.08	-.05	.05	-.15	.06
PI x Interdependent	.07	.05	-.02	.16	<-.01	.04	-.08	.07	<.01	.05	-.09	.10
SI x Independent	.01	.05	-.09	.11	-.02	.04	-.10	.07	.06	.05	-.04	.16
SI x Interdependent	-.05	.05	-.15	.05	<-.01	.04	-.09	.07	-.01	.05	-.11	.08
<i>R</i> ² _{adj}	.50				.62				.42			
Step 4												
PI x SI x Independent	-.04	.04	-.13	.04	-.03	.03	-.09	.04	-.05	.04	-.13	.04
PI x SI x Interdependent	.04	.04	-.04	.12	<.01	.03	-.06	.07	.05	.04	-.03	.13
<i>R</i> ² _{adj}	.50				.62				.42			

Note. **p < .001, *p < .05. LL = lower limit for 95% CI for β; UL = upper limit for 95% CI for β. PI = personal identity, SI = social identity, SC = self-construal

Table XXVII

Hierarchical Regression Results (Standardized Coefficients) for Predicting Moral Conviction Across Issues Controlling for Covariates (No Data Exclusions)

	<i>Same-sex marriage</i>				<i>Gun control</i>				<i>Capital punishment</i>			
Predictor	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>
Step 1												
Attitude importance	.27**	.05	.18	.36	.46**	.05	.37	.56	.29**	.05	.19	.40
Attitude certainty	.58**	.04	.49	.66	.33**	.05	.23	.42	.39**	.05	.28	.50
Issue position	-.16**	.04	-.24	-.09	-.08*	.04	-.15	-.01	-.09	.04	-.17	-.01
Social desirability	.03	.04	-.04	.10	-.05	.04	-.12	.02	-.09	.04	-.17	-.01
R^2_{adj}	.52				.54				.38			
Step 2												
Personal identity	.17**	.05	.08	.27	.34**	.05	.25	.43	.32**	.06	.21	.42
Social identity	-.01	.04	-.10	.08	-.04	.04	-.12	.04	-.06	.05	-.16	.03
R^2_{adj}	.54				.61				.43			
Step 3												
Individualizing	.08	.04	-.01	.16	.12*	.04	.05	.19	.12*	.04	.04	.21
Binding	-.01	.04	-.10	.07	-.06	.04	-.13	.02	-.12*	.05	-.21	-.03
Personal identity*Social identity	-.05	.04	-.13	.03	-.10*	.04	-.17	-.03	-.06	.04	-.14	.02
PI x Individualizing	.10*	.05	.01	.19	-.02	.05	-.11	.07	<.01	.05	-.09	.10
PI x Binding	-.04	.04	-.12	.05	.10*	.04	.02	.19	-.01	.05	-.10	.09
SI x Individualizing	-.07	.05	-.16	.03	.02	.05	-.07	.12	.01	.05	-.09	.10
SI x Binding	-.02	.04	-.11	.06	-.08*	.04	-.17	<-.01	<.01	.05	-.09	.10
R^2_{adj}	.54				.62				.44			
Step 4												
PI x SI x individualizing	.02	.03	-.05	.09	-.05	.04	-.13	.03	-.04	.04	-.13	.04
PI x SI x binding	.05	.03	-.02	.12	.04	.03	-.01	.10	.04	.04	-.03	.11
R^2_{adj}	.54				.62				.44			

Note. **p < .001, *p < .05. LL = lower limit for 95% CI for β ; UL = upper limit for 95% CI for β . PI = personal identity, SI = social identity.

Table XXVIII*Descriptive Statistics and T-test Results for Identity Subscale Response Time*

Predictor	<i>Same-sex marriage</i>					<i>Gun control</i>					<i>Capital punishment</i>				
	<i>M</i>	<i>SD</i>	<i>t(650)</i>	<i>LL</i>	<i>UL</i>	<i>M</i>	<i>SD</i>	<i>t(650)</i>	<i>LL</i>	<i>UL</i>	<i>M</i>	<i>SD</i>	<i>t(650)</i>	<i>LL</i>	<i>UL</i>
Personal identity RT	22.66	17.6	-5.59**	-.15	-.07	18.15	15.33	-11.03**	-.25	-.18	26.61	146.35	-6.79**	-.19	-.11
Social Identity RT	30.36	26.11				30.61	30.63				27.61	26.18			

Note. ** $p < .001$. RT = response time. Mean and SD are reported in raw units. T-test results are based on log transformed units. LL = lower limit for 95% CI for mean difference of the log transformed subscales; UL = upper limit for 95% CI for mean difference of the log transformed subscales.

Table XXIX*Hierarchical Regression Results (Standardized Coefficients) for Predicting Moral Conviction Across Issues Controlling for Covariates using Identity Subscale**Response Time*

Predictor	<i>Same-sex marriage</i>				<i>Gun control</i>				<i>Capital punishment</i>			
	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	<i>LL</i>	<i>UL</i>
Step 1												
Attitude importance	.29**	.05	.20	.39	.46**	.05	.36	.56	.32**	.06	.21	.44
Attitude certainty	.55**	.05	.46	.64	.33**	.05	.23	.43	.34**	.06	.23	.45
Issue position	-.19**	.04	-.28	-.11	-.06	.04	-.14	.02	-.12*	.04	-.21	-.04
Social desirability	.04	.04	-.04	.12	-.05	.04	-.12	.03	-.10*	.04	-.19	-.02
R^2_{adj}	.49				.55				.38		.38	
Step 2												
PI timing	-.01	.04	-.10	.07	.04	.04	-.04	.11	-.04	.04	-.12	.05
SI timing	-.02	.04	-.11	.07	<-.01	.04	-.08	.07	.18**	.04	.09	.26
R^2_{adj}	.49				.54				.41			
Step 3												
Individualizing	.09	.05	-.01	.18	.09*	.04	.01	.18	.10	.05	<-.01	.19
Binding	-.05	.05	-.14	.04	-.02	.04	-.10	.06	-.11	.06	-.22	.01
PI timing*SI timing	.01	.03	-.04	.06	.03	.04	-.05	.10	-.74	.58	-.19	.4

PI timing x Individualizing	-.03	.06	-.14	.08	-.07	.06	-.20	.06	.61*	.30	.01	1.21
PI timing x Binding	-.02	.04	-.10	.05	.04	.06	-.08	.16	-.62	.52	-.16	.41
SI timing x Individualizing	<.01	.06	-.11	.12	-.02	.06	-.14	.09	-.06	.05	-.16	.04
SI timing x Binding	-.03	.05	-.13	.06	-.01	.07	-.14	.12	-.02	.07	-.15	.11
R^2_{adj}	.49				.55				.41			
Step 4												
PI timing x SI timing x Individualizing	.04	.06	-.07	.15	-.09	.04	-.17	<.01	-.89	.65	-2.17	.39
PI timing x SI timing x Binding	.01	.05	-.09	.10	.01	.03	-.05	.07	.28	.80	-1.30	1.85
R^2_{adj}	.49				.55				.41			

Note. **p < .001, *p < .05. LL = lower limit for 95% CI for β ; UL = upper limit for 95% CI for β . PI = personal identity, SI = social identity.

Table XXX

Study 2 Linear Regression Results (Standardized Coefficients) for Predicting Moral Conviction Across Issues

Predictor	Same-sex marriage				Gun control				Capital punishment			
	B	SE B	LL	UL	B	SE B	LL	UL	B	SE B	LL	UL
Personal identity	.49**	.05	.39	.58	.66**	.04	.57	.74	.55**	.05	.46	.64
R^2_{adj}	.24				.43				.30			

Note. **p < .001, *p < .05. LL = lower limit for 95% CI for β ; UL = upper limit for 95% CI for β .

Table XXXI

Study 2 Linear Regression Results (Standardized Coefficients) for Predicting Moral Conviction Across Issues

Predictor	Same-sex marriage				Gun control				Capital punishment			
	B	SE B	LL	UL	B	SE B	LL	UL	B	SE B	LL	UL
Social identity	.29**	.05	.19	.40	.43**	.05	.33	.53	.31**	.05	.21	.41
R^2_{adj}	.08				.18				.09			

Note. **p < .001, *p < .05. LL = lower limit for 95% CI for β ; UL = upper limit for 95% CI for β .

Approval Notice
Initial Review – Expedited Review

December 4, 2017

Lindsay Keeran
 Psychology
 1007 W Harrison street
 M/C 285
 Chicago, IL 60612
 Phone: (614) 256-8423

RE: **Protocol # 2017-1275**
“Identity Function of Moral Mandates”

Dear Ms. Keeran:

Please note that stamped .pdfs of all approved recruitment and consent documents have been uploaded to OPRSLive, and you must access and use only those approved documents to recruit and enroll subjects into this research project. OPRS/IRB no longer issues paper letters or stamped/approved documents.

Members of Institutional Review Board (IRB) #2 reviewed and approved your research protocol under expedited review procedures [45 CFR 46.110(b)(1)] on November 30, 2017. You may now begin your research

Your research meets the requirement(s) for the following category - Expedited Review Approval Category 45 CFR 46.110(b)(1):

Protocol reviewed under expedited review procedures [45 CFR 46.110] Category: 7

(7) Research on individual or group characteristics or behavior (including but not limited to research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Please note the following information about your approved research protocol:

Protocol Approval Period: November 30, 2017 - November 30, 2018

Approved Subject Enrollment #: 2000

Additional Determinations for Research Involving Minors: The Board determined that this research satisfies 45CFR46.404', research not involving greater than minimal risk. Therefore, in accordance with 45CFR46.408, the IRB determined that only one parent's/legal guardian's permission/signature is needed. Wards of the State may not be enrolled unless the IRB grants specific approval and assures inclusion of additional protections in the research required under

45CFR46.409 '. If you wish to enroll Wards of the State contact OPRS and refer to the tip sheet.

Performance Sites: UIC
Sponsor: None
PAF#: Not applicable

Research Protocol(s):

- a) Identity Function of Moral Mandates Protocol; Version 1; 12/03/2017

Recruitment Material(s):

- a) No recruitment materials will be used - UIC Psychology Subject Pool procedures will be followed.

Informed Consent(s):

- a) Identity Functions of Moral Mandates Consent Form; Version 1; 11/20/2017
 b) Identity Functions of Moral Mandates Debriefing Statement; Version 1; 12/03/2017
 c) A waiver of documentation of informed consent has been granted under 45 CFR 46.117 and an alteration of consent has been granted under 45 CFR 46.116(d) for the online research activities;(minimal risk; subjects will be provided with and information sheet and electronically agree to participate.

Parental Permission(s):

- a) A waiver of parental permission has been granted for minors in the UIC Psychology Subject Pool under 45 CFR 46.116(d) and 45 CFR 46.408(c); however, as per UIC Psychology Subject Pool policy, as least one parent must sign the Blanket Parental Permission document prior to the minor subject's participation in the UIC Psychology Subject Pool.

Please note the Review History of this submission :

Receipt Date	Submission Type	Review Process	Review Date	Review Action
11/27/2017	Initial Review	Expedited	11/30/2017	Approved

Please remember to:

→ Use only the IRB-approved and stamped document(s) enclosed with this letter when enrolling new subjects.

→ Use your **research protocol number** (2017-1275) on any documents or correspondence with the IRB concerning your research protocol.

→ Review and comply with all requirements on the OPRS website at,
"UIC Investigator Responsibilities, Protection of Human Research Subjects"
 (<http://tiger.uic.edu/depts/ovcr/research/protocolreview/irb/policies/0924.pdf>)

Please note that the UIC IRB has the right to ask further questions, seek additional information, or monitor the conduct of your research and the consent process.

Please be aware that if the scope of work in the grant/project changes, the protocol must be amended and approved by the UIC IRB before the initiation of the change.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact the OPRS office at (312) 996-1711 or me at (312) 355-0816.

Sincerely,

Alison Santiago, MSW, MJ
Assistant Director, IRB # 2
Office for the Protection of Research

Subjects

Enclosure(s) can be accessed via OPRS Live:

1. Informed Consent Document(s):

- a) Identity Functions of Moral Mandates Consent Form; Version 1; 11/20/2017
- b) Identity Functions of Moral Mandates Debriefing Statement; Version 1;
12/03/2017

cc: Linda J. Skitka (Faculty Advisor), Psychology, M/C 285
Michael E. Ragozzino, Psychology, M/C 285

VITA

Lindsay M. Keeran

Department of Psychology (M/C 285), Chicago, Illinois 60607
1007 W. Harrison Street (M/C 285),
lkeera2@uic.edu • 614-256-8423

Education

University of Illinois at Chicago

PhD in Social Psychology

August 2017-present

- Advisor: Linda J. Skitka

The Ohio State University

Bachelor of Science in Psychology

May 2016

- Neuroscience Minor
- Summa cum laude and with Honors Research Distinction in Psychology
- Cumulative GPA: 3.976/4.0 (Major GPA: 4.0/4.0)
- *Honors Thesis*- Indirect Evaluative Focus: Influences on Self-Validation and Persuasive Impact (Advisor: Dr. Duane T. Wegener)

Publications

MANUSCRIPTS

Apathy, N.C., Menser, T., **Keeran, L.M.**, Ford, E.F., Harle, C.A. & Huerta, T.R. (2018). Trends and Gaps in Awareness of Direct-to-Consumer Genetic Tests from 2007 to 2014. *American Journal of Preventive Medicine*, 1-8.

Keeran, L.M. & Skitka, L.J. (in press). "Moral Conviction." In Oxford Bibliographies in Psychology. Dunn, Dana (Ed.). New York: Oxford University Press.

MANUSCRIPTS UNDER REVIEW

Carsel, T. S., Troian, J., Bonetto, E., Varet, F., **Keeran, L. M.**, Lo Monaco G., & Piermattéo, A. (under review). The black sheep effect: A report of six failed conceptual replications.

Poster Presentations

Keeran, L.M., Prims, J.P., Carsel, T.S., & Skitka, L.J. (2020, February). *Expression of Identity through Moral Conviction*. Poster presented at the annual meeting of the Society for Personality and Social Psychology, New Orleans, LA.

Keeran, L.M., Carsel, T.S., & Skitka, L.J. (2019, May). *Exploring the Identity Implications of Moral Conviction*. Poster presented at the Brehm Social Psychology Summit, Lawrence,

KS.

Keeran, L.M., Carsel, T.S., & Skitka, L.J. (2018, March). *Exploring the Identity Implications of Moral Conviction*. Poster presented at the UIC Psychology 4th annual Cross Program Conference, Chicago, IL.

Keeran, L.M., Carsel, T.S., & Skitka, L.J. (2018, March). *Exploring the Identity Implications of Moral Conviction*. Poster presented at the justice and morality preconference at the annual meeting of the Society for Personality and Social Psychology, Atlanta, GA.

Keeran, L. & Wegener, D.T. (2016, March). *"Mindset Priming" and self-validation in persuasion*. Poster session presented at 21st Annual Denman Undergraduate Research Forum, Ohio State University, Columbus, OH.

Keeran, L. & Wegener, D.T. (2016, March). *"Mindset Priming" and self-validation in persuasion*. Poster session presented at 19th annual Psychology Undergraduate Research Colloquium, Ohio State University, Columbus, OH.

Keeran, L. & Wegener, D.T. (2015, September). *Forming impressions of the source vs. message: influences on persuasive impact and self-validation*. Poster session presented at 2015 Fall Undergraduate Research Poster Forum, Ohio State University, Columbus, OH.

Keeran, L. & Wegener, D.T. (2015, March). *Forming impressions of the source vs. message: influences on persuasive impact and self-validation*. Poster session presented at 20th Annual Denman Undergraduate Research Forum, Ohio State University, Columbus, OH.

Honors and Awards

- UIC Cross Program Conference Graduate Student Poster Award (March 2018)
- Recipient of Undergraduate Research Scholarship (\$5000)
- Recipient of Honors Summer Research Scholarship (\$3500)
- Recipient of Provost and Ross Foundation Scholarships (2012-2016)
- 2nd place in Psychology Category for 21st Annual Denman Research Forum (March 2016)
- 3rd place at 19th Annual Psychology Research Colloquium (March 2016)
- Phi Beta Kappa member (2015-present)
- Dean's List all applicable terms (greater than 3.5 GPA)

Research Experience

Department of Psychology Self and Social Motivation Lab
Research Assistant 2-Social (Lab Manager)

Ohio State University
 May 2016- May 2017

- Project Director of NIH-funded study of first year roommates; submit IRB materials, spearhead recruitment efforts for study, determine eligibility, track participant progress and manage research funds

- Responsible for administrative duties, overseeing student research assistants, facilitating interactions between graduate and undergraduate students
- Conduct literature reviews for projects
- Analyze data using SPSS syntax and synthesize results

Wexner Medical Center

Ohio State University

Clinical Research Data Coordinator

May 2016-July 2017

- Responsible for data analysis pieces of research projects, including data coding and entry
- Apply statistical knowledge to troubleshoot problems
- Utilize Stata to complete statistical analyses of large health and cancer-related information trends dataset
- Integrate complex datasets by creating a variable crosswalk

Attitudes and Persuasion Lab

Ohio State University

Honors Thesis Student

May 2014-May 2016

- Devised and designed experiments using Qualtrics and MediaLab to study factors influencing the evaluation of persuasive messages
- Submitted experimental protocol to ethical and regulatory board—received approval
- Recruited participants, oversaw the execution of experiments, and analyzed data in SPSS

*Research Assistant*Ohio State University
August 2013-May 2015

- Collaborated with experiment designers to aid in data collection, interact with participants, and codify results to execute studies efficiently

Cognitive and Affective Influences in Decision-making Lab

August 2015-May 2016

Research Assistant

- Efficiently collected data by interacting with, running, and paying participants
- Provided assistance with projects by coding data and giving feedback to improve studies
- Learned data analysis in R

Social and Political Psychology (SAPP) Lab

August 2015-May 2016

Research Assistant

- Recruited, managed and ran paid subjects for studies
- Conducted literature reviews and codified qualitative data
- Designed study stimuli resulting in more effective manipulations

Teaching Experience

Teaching Assistant

University of Illinois at Chicago

- Laboratory in Social Psychology
- Statistical Methods in Behavioral Science
- Research Methods
- Introduction to Psychology

August 2020-present

August 2019-May 2020

August 2018-December 2018

August 2017-May 2018

Department of Psychology*Course Assistant (Introduction to Psychology)*Ohio State University
August 2015-May 2016

- Prepared and taught a lecture on personality
- Identified and discussed practices that could be applied to produce more conducive learning environments for future students
- Assisted class by holding review sessions and proctoring exams

Work Experience**Psychology 2220 Learning Lab***Peer Expert (Tutor) for Data Analysis in Psychology*Ohio State University
January 2014-May 2016

- Selected amongst applicants based on testing and interview as tutor for students in introductory data analysis course
- Explained concepts, reviewed course material and developed exercises in order to strengthen students' understanding
- Proposed and organized group seminar series "Further Topics in Quantitative Psychology", including the use of R to investigate sampling distributions and other statistical tests

Affiliations and Memberships

- Society for Personality and Social Psychology
- Phi Beta Kappa

Relevant Skills and Coursework

- Proficient in SPSS (including syntax), R, Stata and Excel
- Social Psychology, Quantitative and Statistical Methods, Group processes, Personality

Academic and Leadership Experiences**Social & Personality Program TA**University of Illinois at Chicago
January 2018-May 2020

- Coordinated brownbag speaker sessions, visiting days for prospective graduate students, and job talks and other scheduled activities for prospective faculty

Arts and Sciences College Student Council*Executive Board Member—Secretary*Ohio State University
August 2014-May 2016

- Wrote meeting agendas and take minutes to facilitate dissemination to President and other members
- Enforced attendance policy to determine voting eligibility for Executive Board elections

'Meet the Dean' Director

August 2012- May 2015

- Organize forum for student leader and faculty interaction, to foster awareness of roles and ambitions

General Body Member

August 2012-May 2016

- Interviewed candidates for student-nominated teacher awards to select winner
- Participated in hosting the Graduate and Professional School Fair (300+ students, 20+ colleges)
- Volunteered at service events, such as the Red Cross Blood Drive
- Planned and drafted a college-wide proposal to allocate funds for student organization events; Budget was granted

Department of Psychology

Ohio State University

Psychology and Culture in Europe

May 2014

- Interdisciplinary psychology experience, which consisted of traveling to Rome, Venice and London to explore the societal and cultural impacts of these cities on the field of Psychology