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Do Moral Foundations Predict Views on Morally Contested Issues?

Mackenzie Maria Moreno
DePaul University, mmoren43@depaul.edu

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Do Moral Foundations Predict Views on Morally Contested Issues?

A Thesis

Presented in

Partial Fulfillment of the

Requirements for the Degree of

Master of Arts

By

Mackenzie Moreno

May 2023

Department of Psychology

College of Science and Health

DePaul University

Chicago, Illinois

Thesis Committee

Jane Halpert, PhD, Chair

Shelly Rauvola, PhD

Acknowledgments

I would like to express my gratitude to Dr. Jane Halpert for generously sharing her vast expertise in I-O Psychology, rigor, and love for the field with me. I would also like to thank Dr. Shelly Rauvola for her sound critiques, contagious enthusiasm, and kindness. I thank Laura Griggs for her friendship and support, which has been a great comfort throughout this program. Dr. Eileen Linnabery, I thank you also for your friendship and for encouraging me to further my professional skills and network. To my God, my parents, Natacha and Humberto, and my dear brother Johnny: you are my source of strength and the reason my heart will always be full.

Biography

The author was born in Belleair, FL on October 22, 1999. She attended Osceola

Fundamental High School in Seminole, FL, and was a member of the Early College

Program with St. Petersburg College, graduating with her high school diploma and

Associate of Arts degree simultaneously in 2018. She received her Bachelor of Arts

degree in Psychology with a Minor in Leadership Studies from the University of South

Florida in June of 2020.

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Abstract

The following research utilized Moral Foundations Theory to evaluate individuals on the five moral foundations (harm/care, fairness/cheating, loyalty/betrayal, authority/subversion, sanctity/degradation) and liberalism-conservatism as predictors for views on morally controversial topics. According to a 2021 Gallup poll, some of the most morally contested issues were abortion, doctor-assisted suicide, and changing one's gender. This study sourced participants from LinkedIn and then Sona (DePaul University's undergraduate subject pool) using a blended phasing plan to ensure a politically diverse sample (N =213). This research replicated findings from Graham et al. (2009) that liberals and conservatives operate from different moral foundations. This study also extended findings from Tilburt et al. (2013) that the importance individuals place on moral foundations predicted differences in judgements on morally controversial topics, in particular that the sanctity foundation is a significant predictor for views on abortion and doctor-assisted suicide (and changing one's gender) over and above the other moral foundations. While authority did not significantly predict views on changing one's gender, lower harm/care scores were the strongest negative predictor for level of objection to changing one's gender. As I-O psychologists strive to make the workplace more inclusive, if moral foundations indeed relate to liberalism-conservatism and predict views on different topics, a moral diversity training may serve as a unique complement to the DEI (Diversity, Equity, and Inclusion) space, as opposed to politically focused diversity trainings.

Keywords: Moral Foundations Theory, moral diversity, abortion, doctor-assisted suicide, changing one's gender

Introduction

Social Intuitionism

In the 1960s, Lawrence Kohlberg drafted the now famous moral dilemma short stories designed to elicit moral reasoning according to the level of cognitive development of the reader (1963). The idea is that readers would reason their way through the stories logically. Another popular rationalist, Immanuel Kant, proposed that there are both absolute and objective truths inside of the domain of morality, and that individuals must use reason to accomplish an understanding of these truths (Kant & Reath, 1997). Ultimately, the underlying assumption of a rationalist perspective, like those of Kohlberg and Kant, is that individuals arrive at their moral evaluations by way of logic. Such perspectives on morality and the presupposition of reason dominated the field for decades (Stets, 2016). However, social psychologist Jonathan Haidt found rationalist theories of morality to be too cerebral and detached from emotions. As a result, Haidt tested and found support for the Social Intuitionist model, which posits that moral reasoning largely, if not completely, serves as a system of post-hoc justifications to support an instinctive/automatic evaluation, or an intuition, on moral issues (Haidt, 2001). Essentially, these intuitive responses to moral stimuli are automatic, and rational arguments occur later as a means of justifying the immediate intuitive response; therefore, reasoning is not for the sake of reasoning. In addition, the model takes emphasis away from private (i.e., within the individual) reasoning and instead stresses the importance of social and cultural influences. This model paved the way for Moral Foundations Theory.

Moral Foundations Theory

  Moral Foundations Theory was created to serve as a systematic theory of morality, delving into morality's origins, development, and cultural variations within it. Neuroscientist Gary Marcus wrote on innateness that "nature provides a first draft, which experience then revises… 'built in,' does not mean unmalleable; it means organized in advance of experience" (2004, p.34). Moral Foundations Theory, or MFT, proposes that there are innate psychological systems (the "first draft" to which Marcus refers) that serve as predispositions toward intuitive morality which can help to explain differences in morality across cultures. The idea is that cultures construct their own virtues and intuitions layered on top of their moral predispositions, thus creating different moralities in different parts of the world (Graham et al., 2011). Haidt and Kesebir propose the following approach to moral systems by their function: "Moral systems are interlocking sets of values, virtues, norms, practices, identities, institutions, technologies, and evolved psychological mechanisms that work together to suppress or regulate selfishness and make social life possible" (2010, p. 800). With this definition, a search for moral systems was underway, encompassing an intense and thorough investigation of virtues spread across cultures and time, as well as classification systems of morality derived from anthropology and evolutionary theories (Haidt & Joseph, 2004). This search was informed by the fact that the study of morality had been limited to issues of harm, justice, and rights (Joseph & Haidt, 2006), thus leaving potential for other aspects of morality. What emerged were the five foundations of morality: harm/care, fairness/cheating, loyalty/betrayal, authority/subversion, and sanctity/degradation.

Morality in the Workplace

Industrial-Organizational Psychology (henceforth abbreviated as I-O Psychology) is the scientific study of the workplace, and psychological principles are applied to several critical business areas, including talent management, training and selection, organizational development or organizational change, motivation, performance, leadership, and more (SIOP, 2022). An important part of the I-O field involves ethics within the work environment, and by extension, morality. In the past decade, there has been a push within the field to put more emphasis on business values as well as include more prescriptions about how organizations should be, and to have these normative arguments communicated in moral terms (Lefkowitz, 2008). The timing for communicating with moral terms in the workplace may be especially prudent, given the recent rise in evidence that areas in I-O Psychology and business-related areas such as accounting, marketing, business ethics, charity-run organizations, elections, leadership/followership models, and even the judicial system are impacted by moral foundations (see section on Moral Foundations and Business), thus supporting merit for further study.

Another valuable area of I-O Psychology deals with decision-making processes in the workplace and in management. When it comes to choices regarding engaging in ethical or unethical behavior, any models that point to purely rational thought leave out the first stage of decision making (i.e., the moral intuition), meaning that individuals may not realize they are engaging in reasoning to support an intuition of which they are unaware. Therefore, Moral Foundations Theory could have much to offer I-O Psychology by way of encouraging members of the workforce to recognize the role that moral

intuitions play in the initial stage of decision-making. From an inclusivity perspective, if individuals realize that the reasoning behind each other's moral beliefs stem from an intuitive response, then this could create more empathy and understanding of how others come to believe what they believe and why, even if they do not agree with each other's conclusions.

However, beliefs are only one part of decision-making process. When actions are taken as a result of these beliefs, some may experience moral distress, which is a phenomenon that describes the negative feelings of workers who feel powerless to take action against ethically incorrect actions, according to their personal perspective (Epstein & Delgado, 2010). Moral distress has most often been explored in healthcare professions (Hlubocky et al., 2020; Maffoni et al., 2019). In the academic literature, moral distress suffers from the same issue as many other topics of conceptual development: there is little consensus on how it is defined. A recent meta-analysis by Morley and colleagues explored the history of how moral distress has been defined and offered a critique that it is unclear still what moral distress is and when or how it occurs, yet it is clear that past research suggests that moral distress negatively impacts nurses in particular (2019).

Moral distress may occur in this occupation especially because decisions are often not just about things, but about people. After an instance of moral distress, a side effect occurs when the individual is left with feelings and or/misgivings about the perceived failure to act on the moral distress (Rushton et al., 2016). This is called reactive stress. Left unmanaged, reactive stress can lead to long-term adverse effects psychologically (Epstein & Hamric, 2009). Some proposed solutions to mitigating negative effects are debriefing sessions and facilitated discussions (Sauerland et al., 2015; Wilson &

Goettemoeller, 2013). During these discussions, it may then be helpful to weave moral

foundations throughout, providing workers a tool to express how they relate to their

occupation and the decisions made within it on a moral level.

Alongside goals for greater communication and understanding, there is also a

great push in I-O Psychology for worker well-being, and to create inclusive workplaces

for individuals from all walks of life. In fact, diversity trainings have risen in popularity

over recent years, with about 67% of organizations in the United States reporting having

used or implemented diversity trainings (Kulik & Roberson, 2008). Diversity trainings

are all about creating relational sensitivity and making all individuals, regardless of their

race, gender, culture, or other identities, feel welcome (Kalinoski et al., 2013). As many

DEI specialists argue, issues in the surrounding culture do not simply disappear in the

workplace.

Mirroring this statement, when workers go into the workplace, their political

differences and this great divide do not disappear. Therefore, perhaps a political diversity

training or political diversity awareness movements could serve as a possible solution to

address political divides amongst workers. According to the Society for Human Resource

Management, or SHRM, as an organization, they are not aware of any large U.S.

company that promotes political diversity or offers trainings as of 2012. SHRM also

acknowledges that there is not a standing consensus on what political diversity is, looks

like, or plays out (Bates, 2012). The fact remains that Americans are greatly politically

polarized (Boxell et al., 2020). Jonathan Haidt specifically has argued that if one speaks

to another's moral palate, this could have implications for uniting a group (2012). In this

sense, for workers who experience reactive stress, it may be helpful for them to hear

leadership or colleagues reflecting their own moral foundations in discussions and relating to them in this way.

In other instances, people may have a more receptive attitude to discussing morality and how it leads to beliefs, rather than differences in beliefs in and of themselves. If it is true that Moral Foundations Theory has predictive validity for views on several controversial topics among Americans, then it opens the door to add moral diversity or awareness trainings to the workforce, as it is not explicitly about "politics," but more about the moral foundation of beliefs. By coming from a place of moral foundations, this could de-escalate political discourse and the visceral reactions some may have and create a more morally inclusive workforce, and more specifically, avoid discussion of contentious topics that may ultimately be counterproductive.

Now that a case has been made for integrating moral foundations into the workplace, a deeper discussion on the foundations themselves is warranted. As mentioned earlier per the Social Intuitionist model, moral reasoning often occurs to support an intuitive response, rather than as a logical response. These intuitions give rise to the moral foundations. Therefore the following foundations will be explored regarding what they are, where they come from, and what may trigger them.

Harm/care

This foundation is associated with attachment systems of evolution as mammals that allows human beings to feel and dislike pain in others, with the underlying themes of kindness, gentleness, and nurturance (Haidt, 2012). One who places more importance on harm/care will dislike anyone who causes another pain or suffering and will reciprocally approve of those that can alleviate pain and suffering (Koleva et al., 2012). Witnessing

cruelty or having an intuition that an act is cruel could activate this foundation. This

foundation is also triggered by feelings of compassion and instincts to protect the

defenseless (Haidt, 2012).

Fairness/cheating

This foundation is associated with findings on the evolutionary process called

reciprocal altruism. Robert Trivers, who coined this term, proposed that humans evolved

a set of moral emotions that encourage continuing pleasant behaviors with those who are

likely to reciprocate as this is seen as being fair (1971). Some may take advantage of this

reciprocity, which is why some triggers of fairness emerge from the behavior of others

via cooperation or selfishness. In other words, those that convey a likelihood to

reciprocate positive interactions trigger feelings of liking and friendship, and this is

indicative of the fairness component. Here, the cheating component means individuals

feel disgust or contempt when they realize someone has tried to take advantage of them

(Haidt, 2012). Also, the fairness/cheating foundation is underpinned by generating

intuitions on justice, autonomy, and rights. Politically, on the left, fairness typically

implies equality, whereas on the political right, what is equal should be that which is

proportional. The political left is concerned with issues of both equality and equity, or,

supporting individuals proportionally to their needs (Skurka et al., 2020). However,

proportionality to the political right usually means that people should be rewarded based

on their contributions. Meaning, if one does not contribute and is thus unequal to others

as a result, the political right generally does not see this as an issue of equality or fairness

(Haidt, 2012). Equity is likely beyond the scope of this paper since it is not a foundation

in MFT, however, interested parties may enjoy reading about equity and moral reasoning and how views on equity may predict political leaning (Skurka et al., 2020).

Loyalty/betrayal

The loyalty/betrayal foundation is rooted in tribalism and the human ability to form alliances. Essentially, it prepares human beings for the task of forming integrated coalitions (Haidt, 2012). This foundation can be activated by any surrounding information that may indicate someone is a traitor (betrayer) or a team player (loyal). Underlying this foundation are self-sacrifice and patriotism, and it particularly is activated anytime individuals feel a "one for all, all for one," attitude, or has love and/or pride for their country (Haidt, 2012). This foundation can be indicative of loyalty to family as well as the importance placed on being a team player in lieu of self-expression (Graham et al., 2008).

Authority/subversion

At the center of authority/subversion are hierarchical relationships of a social nature as well as societal structures of dominance and subordination (Koleva et al., 2012). Individuals who place more importance on this moral foundation hold deference toward authority and have a deeper respect for traditions than others. In addition, triggers of this foundation include anything that is perceived as obedient/disobedient, respectful/disrespectful, or submissive/rebellious in regard to authorities the individual deems as legitimate (Haidt, 2012). In addition, this foundation can be activated by what an individual perceives to be acts to subvert or even undermine anything relating to traditions or institutions the individual holds in high regard. This foundation can also be triggered merely by an action that causes chaos (Graham et al., 2008). Haidt also

mentions that like the loyalty/betrayal foundation, the political right (conservatives) may resonate more with this foundation (2012).

Sanctity/degradation

At the core of sanctity/degradation is the psychology of disgust as well as contamination. There are religious elements throughout this foundation, particularly with the desire to live nobly and properly, and it props up the "body is a temple," idea, which posits that the body can be desecrated by immoral behavior and contaminants (Haidt, 2012). This foundation is initiated when there is a perceived violation of standards of purity and decency, or someone does something that is seen as disgusting, even if nobody is harmed (Haidt, 2012). The sanctity/degradation foundation can also be triggered by individuals who would agree that some acts can be deemed wrong on the basis of being unnatural (Graham et al., 2008).

Elements of this last point can be found in Kass's "The Wisdom of Repugnance," which was a paper written providing arguments as to why it is important to ban the cloning of humans (1998). Leon Kass served as Chairman on the President's Council on Bioethics from 2001-2005 (National Endowment for the Humanities, 2009). One of the principles argued in his paper is that logical reasons to why scientists should not clone humans may not be readily available. In essence, there may be a compelling case for the benefits and knowledge that could come to humanity via cloning humans, but the immediate flash of disapproval or disgust some experience when exposed to the idea of cloning is designed to protect human beings from harm.

Moral Foundations and Business

MFT has been applied in a wide variety of business-related areas, including accounting, marketing, and business ethics. For example, this very proposal seeks to extend findings from Tilburt et al. (2013). Tilburt and colleagues applied the moral foundations to predict physicians' views on controversial topics related to the medical field (specifically abortion and euthanasia) which happen to be two of the three topics in this study. They found evidence suggesting that physicians' weight of importance on the different moral foundations may explain differences on morally controversial topics in the field, and that it may interrelate with ideology and religiosity (2013). Another study explored MFT within the context of charities and donations. They found that donations increase when the moral foundations of a charity are in line with the donor's political identity (Winterich et al., 2012). Here, there are implications for the relationship between moral foundations and politics. While demographic variables are traditionally used to forecast election results, this study found that moral foundation endorsement also predicted voting outcomes even beyond demographics. Specifically, in the 2012 U.S. presidential election, increasing points on the harm and fairness foundations predicted voting for Barack Obama, whereas increased endorsement of "binding" foundations (sum of loyalty, authority, and sanctity) predicted support for Mitt Romney (Franks & Scherr, 2015). Also of note is that sanctity was the most reliable predictor, indicating support for Mitt Romney (Franks & Scherr, 2015). This wealth of evidence indicates that moral foundations, whether individuals are consciously aware of them or not, are meaningful and have implications for human relations, financial matters, and even elections.

Moral foundations have also been examined in the contexts of leadership and the judicial system. One study examined the congruity between leaders' and followers' moral foundations through the lens of the followers' perceptions of ethical versus unethical leadership. Essentially, sameness in foundations or any discrepancy in foundations between leaders and followers were related to perceptions of ethical and unethical leadership. They found significant effects for fairness, loyalty, and authority (Egorov et. al., 2020).

Another study sought to explain sentencing decisions of jurors in capital cases using Moral Foundations Theory. Vaughan and colleagues indeed found that moral foundations served as strong predictors in determining death qualification (Vaughan et al., 2019). Interestingly, this study suggests further evidence of the interplay between political identification and the moral foundations. Support was found for the hypothesis that the relationship between conservatism and sentencing decisions would be lessened by moral foundations (Vaughan et al., 2019). Specifically, irrespective of political identification, harm and fairness made jurors more lenient, whereas jurors who were higher in the remaining foundations (loyalty, sanctity, authority) had a punitive effect (Vaughan et al., 2019). This lends to a curious implication: that it could be possible for moral foundations to take precedence over political identification. Another study found support for this notion. MFT was explored in relation to attitudes toward the poor. Harm/care served as the strongest predictor, and while dominance analysis revealed that each individual foundation was important as a predictor, they all served as better predictors than one's political affiliation (Low & Wui, 2015).

Liberalism-Conservatism and Morality

Polling from 2020 suggests that Americans fall into conservative (36%), moderate (35%), and liberal (25%) categories (Gallup). While political views can indeed be layered and diverse, where one lands on a politically liberal-conservative continuum has predictive validity for how one will vote and what one believes on a variety of issues (i.e., without distinctions such as socially liberal or fiscally conservative, for instance) (Jost, 2006). Historically it is believed that liberals have a more optimistic view of human nature, whereas conservatives are more pessimistic. These perspectives regarding human nature are crucial to understanding a key difference between individuals who differ ideologically: specifically, that liberals believe individuals should be free to pursue their own interests and development, whereas conservatives tend to believe constraints are necessary to ensure a civil society (Sowell, 2002). Conservative ideology may arise from a predisposition to disliking change or a higher likelihood to accept inequality (Jost et al., 2003). Liberals, on the other hand, are more inclined to seek out change in both personal and political ways (McCrae, 1996). Ultimately, the main finding that Haidt and Graham observed is that liberals endorse the harm/care and fairness/cheating foundations at much higher rates than the other remaining foundations, whereas conservatives endorse the five foundations more equally (2007). These findings appear to confirm that conservatives do in fact have a greater desire for order, hierarchy, and traditions, which are aspects of morality reflected in Moral Foundations Theory.

Figure 1

Findings from Graham, Haidt, and Nosek (2009)
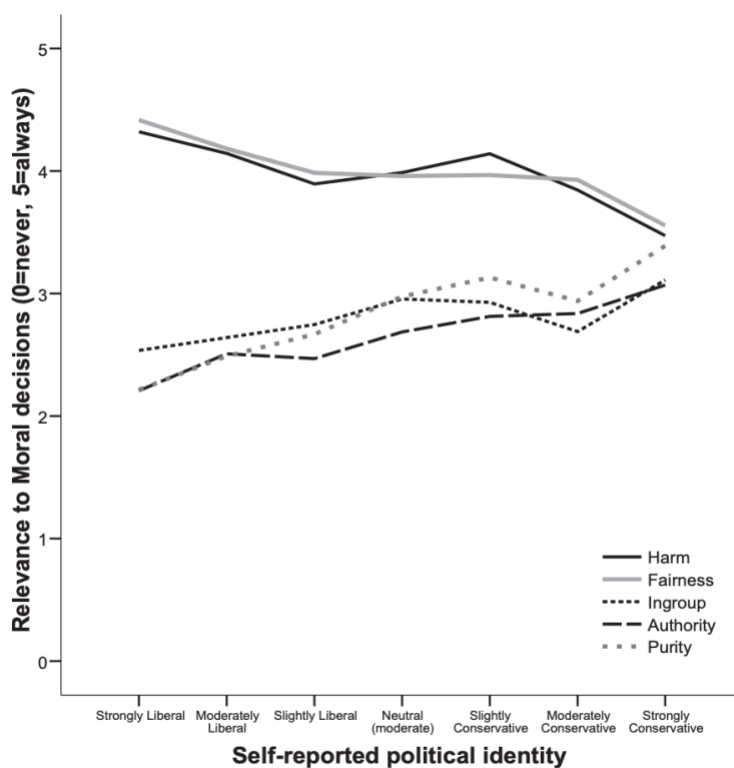
Insight into Moral Issues in the United States

In a recent Gallup poll on Moral Issues, Americans were presented with 22 different behaviors/social policies and asked to label the topics as either "morally acceptable" or "morally wrong." Poll participants were asked to do their best to think about morality separately from opinions on whether the presented issues should be legal. While many Americans held similar stances on many of the moral issues, over the course of several years, there were three issues that routinely caused much disagreement. These three highly contested issues are abortion, changing one's gender, and doctor-assisted suicide. Of note is that these topics, excluding changing one's gender, were the subject of the 2013 study (Tilburt et al.) that this research paper seeks to extend findings from. For more information on historical trends and other moral issues, see specifics here: https://news.gallup.com/poll/1681/moral-issues.aspx

Table 1

Findings from Gallup (2021)

Date	Issue	Morally Acceptable	Morally Wrong
2021, May 3-18	Abortion	47%	46%
2021, May 3-19	Doctor-assisted suicide	54%	43%
2021, May 3-20	Changing one's gender	46%	51%

Three Moral Issues: Abortion, Doctor-Assisted Suicide, and Changing one's Gender

These three issues will be explored in brief, and modestly at that, so the reader may have some insight into the essence, history, relevant facts, and nature of contentiousness of each. A theme between the following topics is that there are ongoing debates as to what the movements should be called. Such varying names will be included to be representative of the moral debate. Of note is that the below sections are designed to inform, not to convince the reader of any position or superiority or inferiority of any of the moral foundations. Most importantly, for the purposes of this thesis, connections will be made to explore the role some of the five moral foundations may play in how Americans form their moral positions on each topic. As touched on earlier, the Social Intuitionist model and by extension, Moral Foundations Theory, posits that moral reasoning occurs as a post-hoc construction to support an intuition (or, in other words, a moral foundation). Therefore, what is of most importance is understanding what about each topic may trigger some moral foundations, and therefore, provide insight into how this thesis' hypotheses were developed and how individuals' moral reasoning serves to justify the intuitive/triggered response.

Abortion

Roe v. Wade, 410 U.S. 113 was a landmark Supreme Court case that supported a pregnant woman's ability, or right to choose, to undergo an abortion procedure without excessive government restriction (Roe v. Wade, 1973). However, Roe v. Wade was overturned in June of 2022, leaving abortion restrictions and protections up to individual states (Traub et al., 2022). An abortion is medically understood to be the termination of a pregnancy, but various states and laws have unique definitions, particularly considering the trimester of abortion. According to the Guttmacher Institute, a pro-choice research organization, approximately 1.21 million abortions were performed in 2008 in the United States (Jones & Kooistra, 2011). In 2014, this number was closer to 926,240 (Jerman et al., 2016). Current numbers according to the World Population review, show that there were 856,730 abortions in the United States (2022).

The labels used during abortion-related conversations often do not represent the nuance of respective positions. Nonetheless, in the absence of more neutral terms, the conversation often boils down to "pro-choice" or "pro-life" labels. There are organizations dedicated to advocating the position of both sides. For instance, some pro-life/anti-abortion organizations are the National Right to Life Committee, Live Action, or 40 Days for Life, to name a few. Some pro-choice organizations are Planned Parenthood, NARAL (National Abortion Rights Action League) and the Guttmacher Institute, among many others.

Since 2001, the gap in percentage of Americans who believe abortion is morally acceptable versus morally wrong has ranged from zero to twenty percentage points (Gallup). The issue, as of 2021, is held within one percentage point, with 47% of

Americans viewing abortion as morally acceptable and 46% regarding abortion as morally unacceptable. Again, while there is nuance to each side, generally speaking, for the pro-choice movement, these are women exercising their reproductive freedom and autonomy (NARAL, 2021). For the pro-life movement, this is the death of pre-born children (Pro Life Action, 2022). Given that so much is at stake (views being either that woman forcibly required to carry her child to term, or an innocent life is being murdered, respectively) tensions are extremely high and show no signs of cooling down.

There has been support hinting that sanctity/degradation is involved with moral objections to abortion. There is some evidence in the literature for this connection (Koleva et al., 2021; Tilburt et al., 2013). Further, since a part of the sanctity/degradation foundation is informed by the psychology of disgust and the foundations are informed by social intuitionism, a study on moral shock may shed light on support of Moral Foundations Theory and the link between level of moral objection and scores on sanctity/degradation. Colleagues Wisneski and Skitka tested to see if participants presented with "disgusting" images would increase levels of moral conviction, and if this emerged from an initial flash of disgust. By displaying graphic images of aborted fetuses, there was an increase in moral convictions mediated by disgust, not by anger or harm appraisals (2017). This demonstrates that the sanctity/degradation foundation as opposed to the harm/care foundation contributed to the stronger moral convictions.

What about moral foundations of those who are in support of abortion? While most recent studies attempt to predict level of moral objection (not moral approval), it is difficult to find "supporting" foundations. However, given statements made by pro-choice advocates and organizations, many of the statements appear reflective of the

fairness/cheating foundation. For instance, pro-choice individuals often refer to abortion rights as a woman's bodily autonomy or reproductive rights, thus framing the conversation around women's rights. Given that the fairness/cheating foundation is underscored by the ideas of rights, autonomy, and equality, it seems plausible that espoused values, coupled with moral reasoning would lead individuals high in this foundation to have a lower if not nonexistent level of moral objection to abortion.

Doctor-Assisted Suicide

Terminology-wise, doctor-assisted suicide has gone by many different names. For instance, some use physician-assisted suicide, physician-assisted death, or for stronger proponents, death-with-dignity (Allmark, 2002; CNN, 2021; Derse et al., 2019). The phrase doctor-assisted suicide is what was presented to participants in the aforementioned 2021 Gallup poll, but the following references will retain the source's way of referring to this topic. According to the American Medical Association, physician-assisted suicide "occurs when a physician facilitates a patient's death by providing the necessary means and/or information to enable the patient to perform the life-ending act" (American Medical Association [AMA], 2016). This could occur by way of a physician providing sleeping pills, aware that the patient may commit suicide, and sharing information about the lethal dose (AMA, 2016).

The first country in the world to legalize physician-assisted suicide was the Netherlands (Keown, 2012). As of today, doctor-assisted suicide is legal in the United States in ten states as well as the District of Columbia (D.C.). In Colorado, D.C., Hawaii, Maine, New Jersey, Mexico, Oregon, Vermont, and Washington, citizens have the option of engaging in doctor-assisted suicide, mandated by State Law (CNN, 2021). In both

Montana and California, it was mandated by Court Ruling (CNN, 2021). It is difficult to evaluate the scope of this issue since each state has its own way of reporting deaths and prescriptions; therefore, the issue is best evaluated by state. The state of Oregon reported that as of January 22nd, 2021, 2,895 prescriptions were written and 1,905 patients died, in total, since the law was passed in 1997. In California in 2018, 452 patients had received prescriptions and 337 died after ingesting the prescribed medications. Washington's 2019 annual report details that 1,668 prescriptions were written since 2009, and there have been 1,622 reported deaths as a result (Derse et al., 2019). It would appear that not all individuals who receive a prescription decide to ingest the medication.

As of 2020, there is an endorsement gap between American's views on doctor-assisted suicide of eight percentage points, with the majority (51%) of Americans viewing the issue as morally acceptable (Gallup). In 2021, that majority grew to 54%. Past research on moral foundations that tested all five has revealed that only the sanctity/degradation foundation was positively associated with moral judgements on euthanasia, as the study refers to it (Tilburt et al., 2013).

This issue generally presents many moral quandaries. Physicians must abide by their code of ethics, and a part of this includes respect for patient self-determination (AMA, 2016). On the other hand, for physicians who view themselves as healers, doctor-assisted suicide may be seen as incompatible with their self-perceptions.

Changing One's Gender

The title of this section, like the other two issues, have been labeled based on how they were listed in a Gallup poll (2021). To say someone is transgender or that one has changed one's gender could mean many different things depending on which academic

literature is considered. According to the American Psychological Association (APA), transgender "is an umbrella term for persons whose gender identity, gender expression or behavior does not conform to that typically associated with the sex to which they were assigned at birth" (2014). Something to keep in mind here is that the language of "changing one's gender" could be interpreted in different ways by participants who participated in the Gallup poll. For instance, some may interpret it to mean gender reassignment surgery or hormone replacement therapy, although not all transgender people seek out and follow through with such options (Winter et al., 2016). Further, some may read "changing one's gender," and think of legal means, like applying to change one's gender on a driver's license or other legal documents.

A meta-regression from 2016 predicts that every 390 per 100,000 adults in the United States identify as transgender, noting that younger adults represent more than 50% of their sample respondents (Meerwijk & Sevelius). Currently, 66% of the public in the U.S. favors allowing openly transgender people to serve in the military. Democrats (87%) are a little over two times as likely as Republicans (43%) to favor transgender people in the military. In addition, most Americans (62%) believe athletes should play on teams that match their biological sex, not their gender identity (Gallup, 2021)

As for how moral foundations relate to this topic, the attempted suicide rate in the trans population is cause for concern and compassion in many. While little is known about death rates by suicide in the transgender population (Biggs, 2022; Wolford-Clevenger et al., 2018), the suicide attempt rate is much higher than the general population. Some studies indicate the suicide attempt rate in the transgender population ranges from 28% to 52% (Grossman et al., 2016; James et al., 2016; Olson et al., 2015).

This heightened suicide rate indicates that this is a vulnerable and at-risk community. Here, the harm/care foundation seems quite plausible to come into play, as this foundation is underscored by caring for the vulnerable and having compassion for anyone who is suffering. Alternatively, the words "changing one's gender," may also garner reactions from those high in sanctity. Since this foundation indicates that some may morally object to something simply on the basis of it appearing to be unnatural, it follows that individuals higher in sanctity would be likely to have a moral objection to changing one's gender. Therefore, the moral foundations of harm/care and sanctity/degradation could serve to produce contrasting moral perspectives.

Table 2

How individual Moral Foundations relate to abortion, doctor-assisted suicide, and changing one's gender

	Abortion	Doctor-assisted suicide	Changing one's gender
Harm/care	Higher scores may be related to moral objections here as foundation is related to mammalian attachment systems and nurturance.	Higher scores may be related to moral objections, since one of the items on the MFQ-30 is "it can never be right to kill a human being."	Lower scores may be related to moral objections, considering that this foundation is underscored by caring for the vulnerable and compassion for anyone who is suffering.

Fairness /cheating	Pro-life and pro-choice advocates may in fact have high scores on this foundation, but for different reasons (bodily autonomy vs. right to life).	NA	Lower scores may be related to moral objections, given this foundation's emphasis on autonomy (i.e., an individual's right to undergo gender reassignment surgery and make such personal decisions).
Loyalty /betrayal	Higher scores may be related to moral objections for pro-choice individuals. For instance, they may view pro-life individuals as betraying women.	NA	This seems like a stretch, but higher scores could relate to stronger moral objections if one believes in limiting self-expression to "keep the peace" or be a team player.
Authority /subversion	Higher scores have been found to be significantly negatively associated with objection to abortion (Tilburt et al., 2013).	Lower scores may be associated with moral objections for individuals who may be responsible for writing prescriptions (like physicians), although, for those uninvolved in that process, it is not immediately obvious how this foundation could trigger moral opinions in the general public on this topic.	Higher scores may be related to stronger moral objections if the gender binary (male/female) is seen as tradition. Further, higher scores may be reflective of disliking chaos. One of the items behind this foundation is "men and women each have different roles to play in society," therefore; if changing one's gender is seen as disrupting tradition or societal norms, those higher in authority may have a lower tolerance for anything outside of male/female bounds.
Sanctity /degradation	Higher scores served as a predictor of moral objections to abortion	Higher scores served as a predictor of moral objections to	Higher scores may predict objections since this foundation

| | (Tilburt et al., 2013). Sanctity scores served as a better unique predictor than political orientation in regard to views opposing abortion (Koleva et al., 2012). | abortion (Tilburt et al., 2013). | is underscored by a belief that the body should not be altered (that is, if individuals interpret "changing one's gender" to mean gender reassignment surgery). Even so, higher sanctity scores are associated with deeming acts wrong on the basis of them being unnatural. Therefore, if the phrase "changing one's gender," triggers a feeling of it being unnatural, it seems plausible that this may predict moral objections. |

Note. Abortion and doctor-assisted suicide have been studied before in the context of MFT. Changing one's gender has not. This table seeks to explore the question: What, if anything, about each moral foundation may relate to moral objections?

Hypotheses

H1   Liberal participants will rate harm/care and fairness/cheating as the most important moral foundations relevant to their moral judgements, whereas conservative participants will rate loyalty/betrayal, authority/subversion, and sanctity/degradation as more relevant to their moral judgements.

H1 has been chosen to attempt to confirm findings from Graham et al. (2009) that liberals and conservatives operate from different moral foundations. For the purposes of this study, it is important to add to the body of evidence that conservatives and liberals place different values on moral foundations to better understand moral diversity in the workplace.

HII   Sanctity/degradation scores will be predictive of moral objections to abortion and doctor-assisted suicide over and above the other moral foundations.

HII been selected to extend findings from Tilburt et al. (2013) that the importance individuals place on moral intuitions may predict differences in judgements on morally controversial topics. In the study from Tilburt and colleagues, sanctity/degradation was the only moral foundation that held a significant positive association with moral judgements on doctor-assisted suicide (2013).

HIII   Sanctity/degradation scores will be predictive of moral objections to changing one's gender over and above the other moral foundations.

HIII has been selected because the sanctity/degradation foundation is underscored by a belief that a body should not be altered, as well as this foundation being triggered in that some acts can be deemed wrong if they are perceived to be unnatural. Further, if it is true that sanctity/degradation plays a significant role here, as well as in views on abortion and doctor-assisted suicide, then this moral foundation is deserving of special attention to understand its role in shaping beliefs about some of the topics that divide Americans the most.

HIV   Lower harm/care scores will be predictive of moral objections to changing one's gender over and above the other moral foundations.

HIV has been selected because the trans community is a vulnerable population and the harm/care foundation is strongly underscored by care for the vulnerable, as well as the belief that compassion is the most crucial virtue one can have.

HV   Higher authority/subversion scores will be predictive of moral objections to changing one's gender.

HV has been selected as this foundation is underscored by preserving tradition and disliking chaos. If individuals perceive changing one's gender as a norm violation and disrupting societal traditions, it is possible that this may predict stronger moral objections in this area. Further, one of the items in this foundation is "men and women each have different roles to play in society," therefore, those higher in authority may have a lower tolerance for anything that deviates from the gender binary.

Method

Participants

Participants (N=213) were sourced using a phasing plan, chosen to ensure representation of liberals and conservatives. Phase 1 entailed sourcing participants from LinkedIn (N=37). Phase 2 utilized SONA (the university undergraduate subject pool) (N=176). This sample was limited to participants who reside in the United States for generalizability purposes, as Gallup only surveyed US residents.

Of note is that the original sample size was 351 responses. Responses that took participants less than five minutes to complete were excluded from the analyses (narrowing the pool down to 226 responses). This time frame was selected because Qualtrics estimated that the survey would take approximately 8 minutes to complete. Therefore, factoring in individual differences (i.e., that some participants read quicker than others), an inference was made that participants who completed the survey quicker than five minutes were not paying sufficient attention. Seven of the 226 responses were eliminated due to failing the attention check (see pages 36-37 for more details). Lastly, there were 6 remaining responses that had missing data. Since the data appeared to be missing at random (there was no repeat item that had missing data), these responses were

eliminated using listwise deletion (Bhaskaran & Smeeth, 2014). After these cuts were made, the resulting sample size was (N=213).

Demographics

A total of 213 complete responses were collected. Of these, 72.8% (155) were female, and the remaining 27.2% (58) were male (sex assigned at birth). Participants were able to self-identify based on the prompt, "what is your current gender?" and 67.6% (144) were female, 25.8% (55) were male, 1.4% (3) were two-spirit, .5% (1) were transgender and .5% (1) preferred not to answer. The remaining 4.2% (9) selected "I use a different term," and were granted a free text response. Of these, 2.7% reported as "nonbinary," .9% (2) reported as "genderfluid," and .5% (1) reported as "she/they."

Most of the sample (49.8%) was White or Caucasian (106), 23.5% (50) were Hispanic or Latino, 8.5% (18) were Black or African American, 8% (17) were Asian or Pacific Islander, 7.5% (16) were Multiracial or Biracial, and 2.8% (6) self-identified as "A race/ethnicity not listed here." In addition, 39.4% of participants were not employed (84), 31.5% (67) were employed part-time, 14.6% (31) were employed full-time, 9.4% (20) were student employees, and 5.2% (11) reported "other." The following table highlights the level of educational attainment of the sample.

Table 3

Level of Educational Attainment among Participants

Educational Attainment

	N	%
Regular high school diploma	35	16.4%
Some college credit, but less than 1 year of college	71	33.3%
1 or more years of college credit, no degree	64	30.0%

Associates degree (for example: AA, AS)	7	3.3%
Bachelor's degree (for example: BA, BS)	13	6.1%
Master's degree (for example: MA, MS, MEng, Med, MSW, MBA	18	8.5%
Professional degree beyond bachelor's degree (for example, MD, DDS, DVM, LLB, JD)	3	1.4%
Doctorate degree (for example: PhD, EdD)	2	0.9%

Power Considerations

Using G*Power 3.1 software, a power analysis was conducted on a linear multiple regression with six predictors. A sample size of 146 would be needed to detect effects with 95% power. Therefore, this study had a goal sample size of 180 participants, since the G*Power result is a minimal requirement. Therefore, the final sample size of 213 participants should be sufficiently powered to detect similar effects if present.

Procedure

Participants were introduced to a cover letter thanking them for their participation and providing an explanation of what was to follow. The first page of the online survey was a consent document (Appendix A). Participants who did not give their consent (i.e., checking the "I do not Agree" box) were thanked for their time and directed away from the survey. Participants who did give their consent (checking the "I agree" box) were then presented with the Moral Foundations Questionnaire, or MFQ-30, without the title (Appendix B). The first thing participants read was "When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking?" Then, they rated 15 moral relevance items (1 distractor item to ensure participant attention) on six-point scale ranging from *not at all relevant* (*this consideration has nothing to do with my judgements of right and wrong*) to *extremely relevant* (*this is one of the most important factors when I judge right and wrong*) on Part

1. For Part 2, participants rated an additional 15 moral relevance items (with 1 distractor) on a 6-point scale ranging from *strongly disagree* to *strongly agree*. Participants were then presented with the three morally controversial topics and asked to rate their moral objection to abortion, doctor-assisted suicide, and changing one's gender (Appendix C). This was followed by the one-item self-report scale for liberalism-conservatism (Appendix D). Lastly, participants were asked to indicate demographic characteristics, including sex, race, employment status and educational attainment (Appendix E).

Measures

Moral Foundations Questionnaire

The MFQ-30, a thirty-item questionnaire, assesses the five moral foundations: harm/care, fairness/cheating, loyalty/betrayal, authority/subversion, and sanctity/degradation (Graham et al., 2008). Cronbach's alphas for each foundation (calculated based on both parts) were .69 (Harm/care), .65 (Fairness/cheating), .71 (Loyalty/betrayal), .74 (Authority/subversion) and .84 (Sanctity/degradation) (Graham et al., 2011). This scale was internally consistent across formats (Part 1 and 2, see Appendix A), and also demonstrated stable test-retest reliability over time, with Pearson correlations (ps<.001) of .71 (harm), .68 (fairness), .69 (loyalty), .71 (authority) and .82 (sanctity) (Graham et al., 2011). Further, external validations have demonstrated that the MFQ-30 has convergent, discriminant, and predictive validity with other widely used scales (Graham et al., 2011). The evaluation of these five foundations is explored in more detail below.

Harm/care

Harm/care was assessed with six items each, taken from the MFQ-30 (Graham et al., 2008). In Part 1, participants are asked: "When you decide something is right or wrong, to what extent are the following considerations relevant to your thinking?" and then they rate their responses on a scale of 0, or "not at all relevant," to 5 "extremely relevant." An example item is "Whether or not someone cared for someone weak or vulnerable." In Part 2, responses are collected on a six-point Likert scale with responses ranging from 0, or "strongly disagree," to 5, or "strongly agree." An example item from Part 2 is "Compassion for those who are suffering is the most crucial virtue."

Fairness/cheating

Fairness/cheating was assessed with six items each, taken from the MFQ-30 (Graham et al., 2008). A sample item from Part 1 is "Whether or not some people were treated differently than others." An item from Part 2 is "I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing."

Loyalty/betrayal

Loyalty/betrayal was assessed with six items each, taken from the MFQ-30 (Graham et al., 2008). A sample item from Part 1 is "Whether or not someone did something to betray his or her group." An item from Part 2 is "People should be loyal to their family members, even when they have done something wrong."

Authority/subversion

Authority/subversion was assessed with six items each, taken from the MFQ-30 (Graham et al., 2008). A sample item from Part 1 is "Whether or not an action caused chaos or disorder." An item from Part 2 is "Men and women each have different roles to play in society."

Sanctity/degradation

Sanctity/degradation was assessed with six items each, taken from the MFQ-30 (Graham et al., 2008). A sample item from Part 1 is "Whether or not someone violated standards of purity and decency." An item from Part 2 is "I would call some acts wrong on the grounds that they are unnatural."

Liberalism-Conservatism

Liberalism-conservatism was assessed with a seven-point self-report scale, with anchors "very liberal" and "very conservative," with a midpoint of "moderate."

Moral Objection

Moral objection to abortion, doctor-assisted suicide, and changing one's gender was assessed with a five-point scale, with anchors "no objection" and "strong objection," with a midpoint of "moderate objection."

Demographics

Included in the survey are a series of questions to obtain participant demographics. These include sex, liberalism-conservatism, employment status, and educational attainment.

Results

Table 4

Normality Assessments

		Statistic	**Std. Error**
Harm	Skewness	-1.14	0.17
	Kurtosis	2.35	0.04
Fairness	Skewness	-0.53	0.17
	Kurtosis	3.25	0.06
Loyalty	Skewness	0.39	0.17

	Kurtosis	-0.1	0.06
Authority	Skewness	-0.35	0.33
	Kurtosis	-0.35	0.08
Sanctity	Skewness	0.25	0.17
	Kurtosis	-0.72	0.33

Table 5

Correlations among variables

		M	SD	1	2	3	4	5	6	7	8	9	10	11
1	Sex	1.73	.45											
2	Educational Attainment	7.69	1.80	-.21**										
3	Abortion	1.90	1.43	-.28**	.26**									
4	Doctor-assisted suicide	2.52	1.43	.04	.00	.51**								
5	Changing one's gender	1.85	1.44	-.32**	.21**	.75**	.45**							
6	Liberalism-conservatism	3.11	1.75	-.30**	.25**	.67**	.42**	.68**						
7	Harm	4.73	.71	.37**	-.18**	-.20**	.03	-.29**	-.32**					
8	Fairness	4.83	.62	.25**	-.20**	-.26**	-.01	-.24**	-.38**	.57**				
9	Loyalty	3.25	.88	-.20**	.08	.46**	.37**	.41**	.49**	.15*	.04			
10	Authority	3.53	.91	-.12	.07	.49**	.40**	.46**	.53**	.11	-.00	.74**		
11	Sanctity	3.36	1.10	-.18*	.10	.57**	.49**	.57**	.57**	.08	.04	.63**	.72**	

Note. *M* and *SD* signify mean and standard deviation, respectively. Sex (1 = male, 2 = female). Educational Attainment (1 = no schooling completed, 2 = nursery school, 3 = grades 1 through 11, 4 = 12th grade – no diploma, 5 = regular high school diploma, 6 = GED or alternative credential, 7 = some college credit, but less than 1 year of college, 8 = 1 or more years of college credit, no degree, 9 = Associates degree, 10 = Bachelor's degree, 11 = Master's degree, 12 = professional degree beyond bachelor's degree, 13 = doctorate degree). Abortion, Doctor-assisted suicide and changing one's gender (1 = no objection, 3 = moderate objection, 5 = strong objection), Liberalism-conservatism (1 = very liberal, 4 = moderate, 7 = very conservative), Harm through Sanctity (1-6). Reliabilities are displayed in the diagonal. N=213. * p < .05; ** p < .01

Hypothesis Testing

For HI, given participant responses to items from the MFQ-30, mean scores were calculated from each moral foundation category: harm/care, fairness/cheating, loyalty/betrayal, authority/subversion, and sanctity/degradation. As indicated in the Measures section, each of the five moral foundation categories have a subscale of six items. Therefore, the overall mean scores for each moral foundation were calculated by averaging the six items. Linear regression was used to determine the relationship between self-reported liberalism-conservatism and each moral foundation as a dependent variable. Mean scores were also compared.

HII – HIV were analyzed through SPSS by way of a linear regression model. Specifically, the analyses were set up so that the dependent variable was level of moral objection (1-5, with 1=no objection, 5=strong objection) to each controversial topic (abortion, doctor-assisted suicide, and changing one's gender) and independent variables were liberalism-conservatism, ranging from 1 (very liberal) to 7 (very conservative), and each of the five moral foundations. The resulting standardized coefficients can be interpreted as the estimated change in the average moral objection level for every one-unit increase in the predictor variable. The coefficient of determination that assesses the extent to which moral foundations accounted for objections to each issue are as follows: abortion ($R^2 = .441$), doctor-assisted suicide ($R^2 = .247$) and changing one's gender ($R^2 = .453$)

Specifically, for HII, the independent variable of interest was sanctity/degradation scores, with dependent variables of abortion and doctor-assisted suicide. With HIII, the independent variable of interest was sanctity/degradation with a dependent variable of

level of moral objection to changing one's gender. For HIV, the independent variable of interest was harm/care also with a dependent variable of level of moral objection. For HV, the independent variable of interest was authority/subversion with a dependent variable of level of moral objection.

Hypothesis I

Hypothesis I predicted that liberal participants would rate harm/care and fairness/cheating as the most important moral foundations relevant to their moral judgements, while conservative participants would rate loyalty, authority, and sanctity as more relevant to their moral judgements. Figure 2 displays foundation scores as a function of liberalism-conservatism. The negative slopes for Harm and Fairness indicate that liberal participants rate them higher than conservative participants. In contrast, the positive slopes for loyalty, authority, and sanctity demonstrate that conservatives rate these foundations higher. Therefore, the hypothesis was supported.

Figure 2
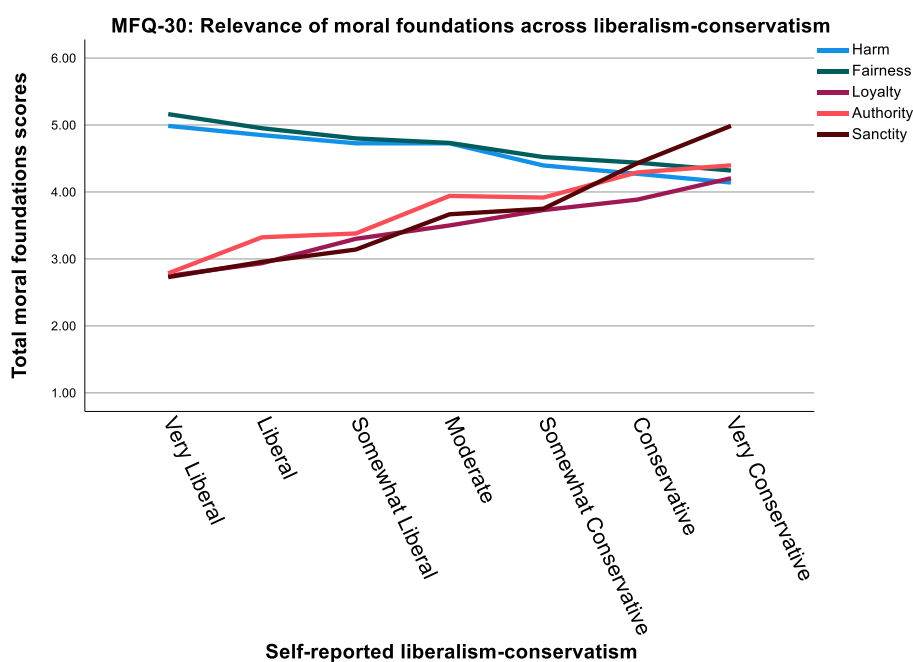
The subsequent Figures 3 and 4 display a breakdown for Part 1 (relevance to moral decisions) and Part 2 (agreement or disagreement with moral statements) of the MFQ-30 along liberalism-conservatism.
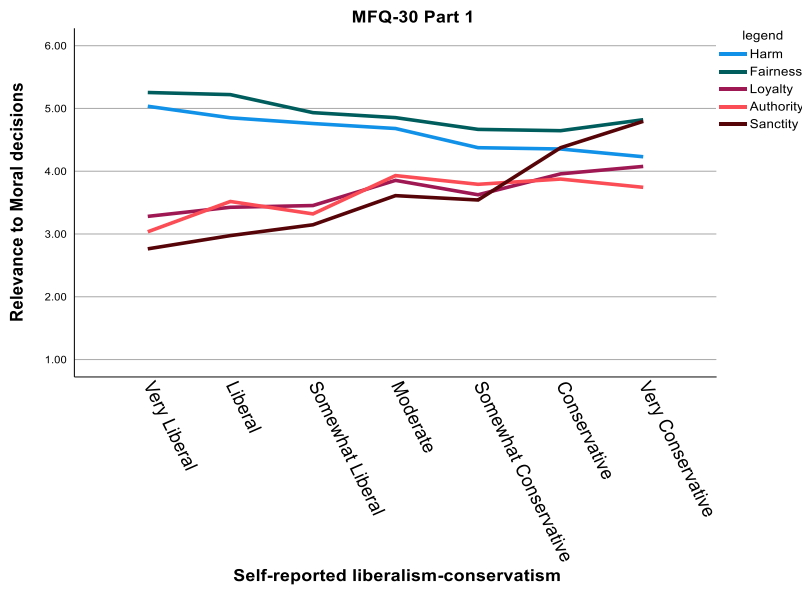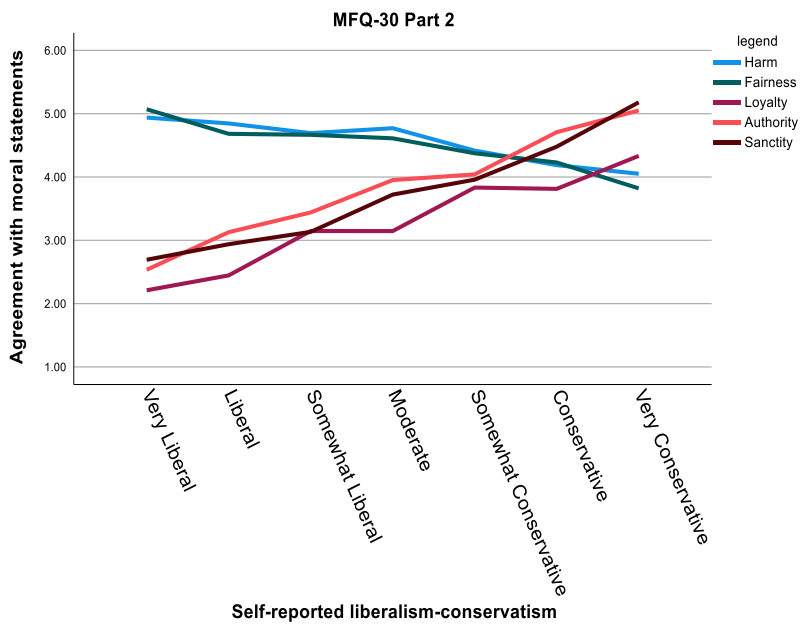
Figure 3

Figure 4

In conclusion, liberal participants indeed rate harm and fairness as the most important moral foundations relevant to their moral judgements, whereas conservatives rated loyalty, authority, and sanctity as more relevant.

Hypothesis II

Table 6

Coefficients for Abortion for Hypothesis II

Model	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	2.400	.671		3.576	<.001	1.077	3.723
Harm	-.291	.129	-.145	-2.262	.025	-.545	-.037
Fairness	-.468	.146	-.203	-3.204	.002	-.756	-.180
Loyalty	.249	.130	.154	1.924	.056	-.006	.505
Authority	.114	.139	.073	.819	.414	-.161	.389
Sanctity	.572	.099	.442	5.754	<.001	.376	.767

Dependent Variable: Abortion

Table 7

Coefficients for Doctor-assisted suicide for Hypothesis II

Model	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	.390	.779		.501	.617	-1.145	1.926
Harm	-.021	.149	-.011	-.142	.887	-.316	.274
Fairness	-.050	.170	-.022	-.294	.769	-.384	.284
Loyalty	.108	.150	.067	.719	.473	-.188	.404
Authority	.112	.162	.071	.692	.489	-.207	.431
Sanctity	.512	.115	.396	4.438	<.001	.284	.739

Dependent Variable: Doctor-assisted suicide

Hypothesis II was supported such that sanctity scores are predictive of moral objections to abortion and doctor-assisted suicide while other predictors weren't or presented standardized coefficients of a lesser magnitude. As sanctity scores increase, objection to abortion increases (β=.442, p < .001). As harm and fairness scores increase, objection to abortion decreases (β=-.145, p = .025; β=-.203, p = .002, respectively). After controlling for self-reported liberalism-conservatism, sanctity was still a significant predictor for objection to abortion (β=.289, p < .001), but harm and fairness no longer significantly predicted level of moral objection to abortion. Further, as sanctity increases, objection to doctor-assisted suicide increased (β=.396, p < .001). After controlling for liberalism-conservatism, the relationship remained the same (β=.302, p = .001). No other moral foundations contributed significantly to level of moral objection to doctor-assisted suicide.

Hypothesis III

Table 8

Coefficients for Changing one's gender for Hypotheses III-V

Model	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	2.689	.669		4.021	<.001	1.370	4.007
Harm	-.593	.128	-.293	-4.619	<.001	-.846	-.340
Fairness	-.225	.146	-.097	-1.543	.124	-.512	.062
Loyalty	.181	.129	.111	1.403	.162	-.073	.436
Authority	.110	.139	.070	.793	.429	-.164	.384
Sanctity	.615	.099	.472	6.210	<.001	.420	.810

Hypothesis III was also supported such that sanctity scores (β=.472, p < .001) were predictive of moral objections to changing one's gender, given that its magnitude was the greatest, and most of the foundations were not significant. The only other significant predictor was harm (β=-.293, p < .001). After controlling for liberalism-conservatism, both sanctity and harm still were significant predictors (β=.315, p < .001; β=-.186, p=.003).

Hypothesis IV

Hypothesis IV was supported, such that lower harm/care scores were predictive of moral objections to changing one's gender, and harm was the most significant negative predictor (β=-.293, p < .001) even after controlling for liberalism-conservatism (β=-.186, p=.003).

Hypothesis V

Hypothesis V was not supported. Authority scores did not significantly predict objections to changing one's gender (β=.07, p=.429) or after controlling for liberalism-conservatism (β = .004) and it was not significant (p = .957).

Discussion

The central hypotheses in this research study were, for the most part, supported by the data. First, regarding Hypothesis I, it was confirmed that liberal participants rated harm and fairness as most relevant to their moral thinking, and conservatives rated loyalty, authority, and sanctity as more relevant. Of important note is that the sanctity foundation was crucial in predicting views on all three morally controversial topics, and remained the predictor with the greatest magnitude, as evidenced by the standardized regression coefficients, irrespective of liberalism-conservatism for Hypotheses II-III.

Harm scores were the strongest negative predictor for moral objections to changing one's gender (Hypothesis IV). This means that participants who rated the foundation as less important to their moral thinking would be more likely to have a moral objection to someone changing one's gender. Or, oppositely, people who view compassion as the most crucial virtue one could have, combined with the trans community being a vulnerable population, would lead higher scores to be associated with less or no moral objection to changing one's gender. Lastly, Hypothesis V was not supported, as authority scores did not significantly predict objections to changing one's gender.

There are a few possible explanations for the disconfirmation of Hypothesis V. Originally, it was thought that if binary gender (male/female) was seen as preserving tradition and changing one's gender was seen as causing chaos, that individuals would perceive "changing one's gender" as a norm violation (i.e., a lack of tolerance for anything that deviates from the gender binary). Further, in the authority foundation, participants were asked to rate their level of agreement/disagreement with the statement: "men and women each have different roles to play in society." However, several of the other items involve respect for authority generally and obeying orders, which could reasonably explain why the foundation as a whole was not a predictor of objections to changing one's gender.

Importantly, the findings from Graham and colleagues were affirmed such that liberals and conservatives rely on different groupings of moral foundations (2009). From the aforementioned study by Tilburt and colleagues, the sanctity foundation was the strongest and most consistent moral foundation with physicians' views on both abortion and, as they categorized the term, euthanasia (i.e., doctor-assisted suicide) (2013). This

present study also emphasizes the predictive validity of the sanctity foundation, not just on abortion and doctor-assisted suicide, but also the new variable this study introduced, changing one's gender. Very liberal participants rate sanctity the lowest of all five moral foundations, and very conservative participants rank sanctity the highest, which could shed light on the tense political environment in relation to these controversial issues. Past studies indicated that conservatives also scored highest on issues of harm and fairness (alongside liberals), however, this study demonstrates that sanctity has surpassed both harm and fairness for very conservative participants. Recalling that Moral Foundations Theory is layered onto social intuitionism, this means that social and cultural influences surpass the within-individual reasoning as they relate to moral foundations. Therefore, it is possible that there is some aspect of the surrounding culture or media that has triggered stronger reactions in sanctity.

Limitations

First, this study's cross-sectional nature prohibits the making of causal statements. There are also a few survey items and scale-related considerations. To begin, in the survey, participants were asked to rate their level of moral objection to the item "changing one's gender," and this could have evoked varied reactions within participants due to its lack of specificity. For instance, participants may have interpreted this as a self-identification change in gender identity, a legal change in identification, a way of physically presenting/acting, or a physical surgery, hormone replacement therapy, or perhaps something else. Therefore, it is not explicitly clear what participants were morally objecting or not objecting to with this item. Future research should clarify what this item means, or include multiple related items, as different wordings could trigger

different moral intuitions and subsequent moral foundations. Future research could also include items related to religiosity to control for while testing the sanctity foundation, as the sanctity foundation has religious elements and ideas throughout.

This study had a few scale-related snags. For example, MFQ-30 items were presented to participants on a scale that ranged from 0-5. Because the survey was inputted into Qualtrics and then SPSS, the data was coded in the software instead as 1-6 (1= not at all relevant, 6= extremely relevant). Similarly, participants were asked to rate their level of moral objection to abortion, doctor-assisted suicide, and changing one's gender on a scale of 0-4. This was coded instead as 1-5 (1=no objection, 5= strong objection). In other words, the data were recoded to start at 1 while participants saw a "0" as the first option.

There was also a flaw in one of the attention checks. In Part 1 the MFQ-30, one of the items was intended as an attention check. Participants were asked, "When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking," and the attention check read: "Whether or not someone was good at math." Participants were theoretically supposed to identify this item and mark it as the lowest score, "Not at all relevant." However, many participants took this question literally. In future attention checks, participants should be asked to select a particular number to see if they are paying attention, rather than trying to disguise an item as a moral consideration. The other attention check in Part 2 functioned as intended, where participants had to rate their agreement/disagreement with the statement "It is better to do good than to do bad." Only seven participants responded using the left side of the scale (i.e., in disagreement with the item) and were excluded from the analysis.

Implications and Future Directions

Since collecting data for this project, the author discovered a paper that proposed a sixth moral foundation, liberty/oppression, which centers around collective resentment toward others who seek to take control of or restrict their liberty (Iyer et al., 2012). This moral foundation could help explain a libertarian aspect to moral foundations (denoting a more cerebral rather than emotional cognitive style in decision making). Future research should incorporate this sixth foundation, and perhaps include other ways to self-identify related to political identities beyond a liberalism-conservatism scale.

Further, this study only tested three morally controversial topics. There are plenty of other topics that could also be explored in relation to MFT that Americans hold in contention, such as the death penalty, medical testing on animals, divorce, cloning animals or humans, suicide, gambling, polygamy, pornography, and many others (Gallup, 2021). It could also be intriguing to conduct longitudinal research to measure moral foundations scores over time in sync with election cycles, to see if the influence from the media triggers varied moral foundations depending on which subjects receive the most news coverage.

The topics of abortion, doctor-assisted suicide, and changing one's gender have significant implications for healthcare settings, where physicians and nurses may face morally complicated situations and choices related to each topic. MFT could be used as a framework by which supervisors could better understand the moral landscape of their own views and their employees' perspectives. In addition, the overturning of Roe v. Wade has caused alterations in all states as to how medical education is being taught and will ultimately reshape what knowledge and skills are required for future physicians

(Traub et al., 2022). MFT could also be integrated into this retraining process given that it is a time of rapid change within the medical field. In this study, MFT, and particularly the sanctity foundation, demonstrated a strong connection related to how individuals formulate their views on these morally controversial topics. This holds true for individuals outside of healthcare as well; these issues generally divide Americans and can be in part explained by MFT. More research should be conducted on the sanctity/degradation foundation to investigate its connections with other moral topics.

Finally, Moral Foundations Theory can be applied to I-O Psychology as a way to better understand various worker perspectives and workplace dynamics. In particular, MFT could be theorized about in the context of recruitment. Organizations, for instance, may benefit from using language that caters to a diverse moral palate (i.e., hitting each moral foundation) in recruiting materials if they desire to attract an ideologically diverse workforce. For those in the marketing sector, it could be interesting to see if different advertising materials are perceived as more or less favorable depending on the moral foundations of the consumer. In fact, there is already some preliminary evidence that visual cues can trigger certain moral foundations in advertisements (Yang et al., 2018). In addition, organization's espoused moral foundations can increase monetary donations among donors who endorse the same foundations (Winterich et al., 2012). Therefore, it may be worth further exploring the mechanisms that lead to these consequences, and exploring other ways moral foundations can be presented to audiences (perhaps in leadership/followership scenarios as well) and what outcomes this may yield.

For practitioners who may be interested in experimenting with MFT, some starting ideas for integration into organizational practice could involve an organizational

culture evaluation. Mission statements could be assessed to ensure they contain language that appeals to various foundations. Leaders could receive training to be equipped to speak to a diverse moral audience. Employees could participate in perspective-taking exercises that revolve around moral foundations. Company swag or promotional merchandise could also be uniquely designed to cater to each moral foundation.

Calling to mind research from SHRM, it appears that there are not any large corporations that offer political diversity trainings, despite most organizations offering diversity trainings (2012). It is possible that the moral foundations literature could add texture to the DEI space and provide workers insight into morality without venturing into political territory. One mechanism by which this could occur is through perspective taking exercises, which could help relieve moral distress. Perspective taking exercises have been demonstrated to reduce prejudice (Galinsky & Moskowitz, 2000) and improve leadership and organizational success (Parker et al., 2008). They can also increase team creativity (Hoever et al., 2012). For organizations that currently offer diversity trainings or perspective taking exercises, weaving in moral foundations could serve as a unique complement to ongoing practices and generate more inclusiveness so that all workers feel their moral perspectives are represented.

In conclusion, this research demonstrated that moral foundations do predict views on controversial topics that are currently dividing Americans the most. There is also preliminary evidence that MFT can be strategically positioned in different organizational areas to further various workplace outcomes. Ultimately, researchers should first investigate further to see if there is a firm enough basis for integrating Moral Foundations

Theory into the workplace, and practitioners can also try their hand at incorporating

and/or experimenting with MFT in surrounding workforce systems.

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Appendix A: Cover Letter and Consent Form

Purpose:
You are being asked to participate in a research study being conducted by Mackenzie Moreno at DePaul University, Chicago. Participation is voluntary. The purpose of this research study is to understand the morality of individuals in the United States and how this morality affects views on a variety of topics.

Procedures:
If you choose to be in the study, you will complete an online survey, which will take about 25 minutes to complete.

Contact Information:
If you have questions about the research, you can contact the researcher at mmoren43@depaul.edu.

If you have any questions regarding your rights as a research subject, please contact the Human Subjects Committee at (805) 893-3807 or hsc@research.ucsb.edu. Or write to the University of California, Human Subjects Committee, Office of Research, Santa Barbara, CA 93106-2050

If you want to participate in this study, click the [*Agree, Accept, Next, Start*] button to start the survey.

Appendix B: Moral Foundations Questionnaire

Moral Foundations Questionnaire (Graham et al., 2008)

Part 1. 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:

[0] = not at all relevant (This consideration has nothing to do with my judgments of right and wrong)
[1] = not very relevant
[2] = slightly relevant
[3] = somewhat relevant
[4] = very relevant
[5] = extremely relevant (This is one of the most important factors when I judge right and wrong)
*Note – these were coded as 1-6 (1 = not at all relevant, 6 = extremely relevant)

_____Whether or not someone suffered emotionally

_____Whether or not some people were treated differently than others

_____Whether or not someone's action showed love for his or her country

_____Whether or not someone showed a lack of respect for authority

_____Whether or not someone violated standards of purity and decency

_____Whether or not someone was good at math

_____Whether or not someone cared for someone weak or vulnerable

_____Whether or not someone acted unfairly

_____Whether or not someone did something to betray his or her group

_____Whether or not someone conformed to the traditions of society

_____Whether or not someone did something disgusting

_____Whether or not someone was cruel

_____Whether or not someone was denied his or her rights

_____Whether or not someone showed a lack of loyalty

_____Whether or not an action caused chaos or disorder

_____Whether or not someone acted in a way that God would approve of

Part 2. Please read the following sentences and indicate your agreement or disagreement:

[0]	[1]	[2]	[3]	[4]	[5]
Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree

_____Compassion for those who are suffering is the most crucial virtue.

_____When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.

_____I am proud of my country's history.

_____Respect for authority is something all children need to learn.

_____People should not do things that are disgusting, even if no one is harmed.

_____It is better to do good than to do bad.

_____One of the worst things a person could do is hurt a defenseless animal.

_____Justice is the most important requirement for a society.

_____People should be loyal to their family members, even when they have done

something wrong.

_____Men and women each have different roles to play in society.

_____I would call some acts wrong on the grounds that they are unnatural.

_____It can never be right to kill a human being.

_____ I think it's morally wrong that rich children inherit a lot of money while poor

children inherit nothing.

_____ It is more important to be a team player than to express oneself.

_____ If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.

_____ Chastity is an important and valuable virtue.

Appendix C: Moral Objection Scale

Please rate your level of moral objection to each topic listed below (abortion, doctor-assisted suicide, and changing one's gender) using the following 5-point scale:

0	1	2	3	4
No Objection		Moderate Objection		Strong Objection

Abortion _____

Doctor-assisted suicide _____

Changing one's gender _____

*Note, these were coded instead as 1-5 (1 = no objection, 5= strong objection)

Appendix D: Liberalism-Conservativism

Please indicate where you identify on liberalism-conservativism on the following 7-point self-report scale.

1	2	3	4	5	6	7
Very Liberal	Liberal	Somewhat Liberal	Moderate	Somewhat Conservative	Conservative	Very Conservative

Appendix E: Sex, Race, Employment Status, and Educational Attainment

Please fill out all applicable information.

Sex

What sex were you assigned at birth, on your original birth certificate?
1.   Male
2.   Female

What is your current gender?
1.   Male
2.   Female
3.   Transgender
4.   Two-Spirit
5.   I use a different term [free text option]
6.   Prefer not to answer

Employment

Full-time	Part-time	Not employed	Student employee	Other

Race

Which of the following best describes you?

Please select one answer.

○ Asian or Pacific Islander
○ Black or African American
○ Hispanic or Latino
○ Native American or Alaskan Native
○ White or Caucasian
○ Multiracial or Biracial
○ A race/ethnicity not listed here

*Race prompt taken from VERSTA

(https://verstaresearch.com/newsletters/how-to-ask-race-ethnicity-on-a-survey/#main-

article)

Educational Attainment

No schooling completed

Nursery School

Grades 1 through 11

12th grade – no diploma

Regular high school diploma

GED or alternative credential

Some college credit, but less than 1 year of college

1 or more years of college credit, no degree

Associates degree (for example: AA, AS)

Bachelor's degree (for example: BA, BS)

Master's degree (for example: MA, MS, MEng, Med, MSW, MBA

Professional degree beyond bachelor's degree (for example: MD,

DDS, DVM, LLB, JD

Doctorate degree (for example, PhD, EdD)

*Educational Attainment taken from Census

(https://www.census.gov/topics/education/educational-attainment/about.html)