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# Ethical Leadership and Moral Foundations Congruence

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**Abstract**

Research has examined follower perceptions of ethical leadership, but rarely accounts for the (mis)alignment between a follower's sense of ethics and morality and that of a leader. This research examined the effects of a leader's expression of each of the five Moral Foundations dimensions on ethical leadership perceptions, moderated by the respondent's preferences for each of these foundations. To address this question, a policy capturing design was used to manipulate leaders' high and low levels of each of the five foundations. The results of multilevel analyses indicate that at least for some dimensions of Moral Foundations, a follower's evaluation of ethical leadership will be higher when their own emphasis on a dimension expressed by that leader is higher. We found no significant difference in evaluations of ethical leadership for followers with low v. high levels of moral identity, and interestingly found that female leaders were generally perceived as more caring than male leaders. This study offers an initial experimental look at the interaction between a follower's and leader's moral baseline and perceptions of ethical leadership; it opens the door for a rich collection of future research.

*Keywords*: Ethical Leadership, Moral Foundations Theory, Moral Identity

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## Chapter 1: Introduction

Businesses must consider ethics as carefully as they must consider accounting or marketing (Werhane & Freeman, 1999). Examples such as the Enron scandal of 2002 (Segal, 2021), Wells Fargo's account fraud scandal (US Department of Justice, 2020), and the highly publicized fraud perpetrated at Theranos (Tun, 2022) dominate the news. Ethical mistakes are costly to the bottom line and reputation of a firm, and at the extreme could result in the fall of a company. One way to bring ethics to the forefront of business is by encouraging ethical behavior in organizational leaders. This is something that has received much attention in the literature over recent decades and promises to remain a popular topic.

Ample research has been conducted in the field of organizational justice on how leadership's just (or unjust) actions affect employees and the company's bottom line (De Cremeret. al., 2007; Lee et. al., 2019; Kim & Brymer, 2011). Additional research has examined the impact of ethical leadership of managers and CEOs specifically (Mostafa et. al, 2021; Suifan et. al., 2020). In addition to the relationship with followers, customers are more likely to purchase products from a company whose leader they see as ethical (Van Quaquebeke et al., 2019). While there has been increasing attention to ethics in practice and in business education, there is still much work needed in order to properly equip management to act ethically (Stark, 1993).

Ethical issues exist only due to the people involved and their reactions and sensemaking to a situation (Diochon & Nizet, 2019). For instance, Reynolds (2006) demonstrated that a manager's a priori attitude towards ethics influenced their response to moral issues in the workplace. It stands to reason that the ethical frameworks that are held

by the individuals involved will change the perception of what is ethical, parallel to the way in which implicit leadership theories of followers shape their perception of who is a leader (Lord, 2020). Indeed, some scholars have investigated the ways in which ethical leadership may differ in various contexts (Kanungo & Mendonca, 1998; Karakitapoğlu-Aygün & Gumusluoglu, 2013). For instance, Resick et al. (2006) demonstrated that employees will often default to their own cultural values and ethical systems when judging the behaviors of leaders. This underscores the fact that what ethical leadership looks like may differ, with different people perceiving aspects of ethical behavior or values as having more or less importance.

Ethical leadership has most often been defined as a leadership style that includes actions perceived as normatively appropriate within the setting and that encourages similar conduct in followers (Den Hartog, 2015). The concerning fact about this definition is that selecting which behavior is "normatively appropriate" can be quite subjective. Given that there are a number of ethical frameworks one could follow and that in today's increasingly international business realm, it can be expected that employees will represent a diversity of opinions on what is ethical or unethical, the question becomes "whose norms?" It is possible that norms may differ within or between groups, and that a norm that benefits one may harm another (Den Hartog, 2015). Norms may also differ within various industries.

There has been some examination of individual-level moral identity in followers as it relates to ethical leadership. Moral identity is how an individual defines themself in terms of moral traits and groups themselves with others based on shared traits (Aquino & Reed, 2002). Wang et al. (2019) demonstrated that followers with high moral identity and

leader identification demonstrate more ethical behavior and treat the leader as a role model, but that ethical leadership led to unethical behavior when a follower was low in moral identity and leader identification. This suggests that the followers' attitudes towards ethics or morality matter when evaluating the value of an ethical leader for a firm. However, research supports that an individual's own ethical ideology and values will change how they respond to various ethical situations (Barnett et al., 1994; Barnett et al., 1996; Fritzsche & Oz, 2007).

Moral Foundations Theory (Haidt, et al., 2009) attempts to find the thread that underlies these philosophies, but ultimately also shows where values align or not and how that affects how people interact. It suggests that morality is a combination of nature and nurture, with the basic building blocks, or foundations, of morality inherent at birth but the use of those foundations and their relative importance a function of later learning (Graham et al., 2013). The five dimensions of human morality defined and commonly used in the literature are care/harm, fairness/cheating, loyalty/betrayal, sanctity/degradation, and authority/subversion; a sixth dimension, liberty/oppression, is also sometimes seen in the literature (Fehr et al., 2015). There is evidence that the congruence between a leader's and a follower's moral foundations impacts how followers perceive leaders (Fehr et al., 2015; Egorov et al., 2019).

Drawing from interactionist approaches to leadership, as well as the notion that followers have a schema of how ethical leadership takes form, congruence or incongruence with a leader's behaviors may impact the evaluation of whether the leader is perceived as ethical, and additional evaluations of the leader. It is time for research to properly explore, empirically, the question of whether overall perceptions of ethical

leadership are sufficient for understanding the construct, and specifically if the congruence between followers' moral foundations and leader behavior is important for understanding evaluations of the leader. Does it matter if the leader and follower share "norms," or does it simply matter that the leader make the rules by which they are playing clear and that they consistently live into their own stated norms? Following Brown and Mitchell (2010) and Egorov et al. (2021)'s calls for additional scholarship that examines leaders' and followers' moral and ethical congruence and its relationship to ethical leadership, **this research asks how a leader and follower's moral foundations profiles impact the degree to which a follower perceives a leader as ethical.**

# Chapter 2: Literature Review

## Ethical Leadership

Ethical leadership has most often been defined as a leadership style that includes actions perceived as normatively appropriate within the setting and that encourages similar conduct in followers (Den Hartog, 2015). Brown et al. (2005) described a need for a definition of ethical leadership beyond aspects of ethics and morality embedded into existing leadership constructs such as transformational and charismatic leadership. There are two dimensions of the construct of an ethical leader, the leader as a moral person and the leader as a moral manager (Den Hartog, 2015). Moral people consider the consequences of their actions, are honest, fair, and trustworthy, and demonstrate a concern for others. Moral managers use their roles to promote ethics in the workplace through role modeling, setting and communicating ethical standards, and using rewards and punishments to ensure that ethical standards are followed.

Numerous studies have demonstrated that ethical leadership is related to positive organizational outcomes. Ethical leadership is thought to have what could be called a trickle-down effect, shaping ethical norms and behaviors, resulting in increased prosocial behavior and reducing the incidence of deviance and unethical conduct (Den Hartog, 2015). For example, Mostafa et al. (2021) demonstrated that ethical leadership was negatively related to turnover intention and positively related to job satisfaction and organizational commitment. Suifan et al. (2020) found support for ethical leadership reducing turnover through increasing psychological empowerment and organizational identification. Followers of ethical leaders are less likely to partake in organizational deviance (Ko et al., 2018), and more likely to put in extra effort on the job (Kim &

Brymer, 2011; Toor & Ofori, 2009). CEO ethical leadership is associated with improved firm performance in many industries (Eisenbeiss et al., 2015; Kim & Brymer, 2011; Kim & Thapa, 2018).

Ethical leadership is conceptually linked to the actions and characteristics of leaders that are perceived by followers as ethical. Characteristics of ethical leaders include honesty and trustworthiness, and they behave ethically in both their personal and professional lives (Brown & Treviño, 2006). It has typically been measured using a scale developed by Brown et al. (2005). The scale asks a follower to answer ten questions about a leader on a 5-point Likert scale. Questions on this scale include: "Makes fair and balanced decisions," "Can be trusted," "Sets an example of how to do things the right way in terms of ethics," and "When making decisions, asks 'what is the right thing to do?'" (The full scale is available as Appendix A.) Various modifications of this scale exist within the literature (Kalshoven et al., 2011; Khan & Javed, 2018). Each version is designed to measure a follower's perception of how ethical a leader is. A review of the literature did not locate any scales that start with an assumption of shared ethics or suggest how a leader and follower with differing ethical philosophies or moral foundations might influence the results of such a test; however, many leadership theories underscore the notion that leader-follower interactions are critical to consider in the broader realm of leadership influence, and recognize the notion that not all followers may perceive the same leader in identical ways.

Given that there are a number of viewpoints on morality that one could ascribe to and that in today's increasingly international business realm, it can be expected that employees will represent a diversity of opinions on what is ethical or unethical and how

to determine and judge actions in terms of morals. Subjective norms may differ within or between groups, and a norm that benefits one may harm another (Den Hartog, 2015). A number of scholars have explored the variance in norms across countries (Paul et al., 2006; Vitell et al., 1993), professions (Perlis & Shannon, 2012), and firms (Burks & Krupka, 2012). These differences can influence perceptions of leaders, including ethical leadership (Burks & Krupka, 2012; Schlegelmilch & Robertson, 1995).

**Normative Ethical Theories**

Ethics as a field of study can include a focus on normative ethics, meta-ethics, or applied ethics (Singer, 1986). Applied ethics is much more popular outside of a philosophy department and among social scientists and practitioners (Birnbacher, 1999). While research into ethical leadership in the business literature is often conducted without applying normative ethical theories (Cugueró-Escofet & Fortin, 2014), a primer on the philosophy behind ethics is useful background when considering ethical behavior. The field of philosophy defines a number of normative ethical theories, which generally fall into three or four main categories. Deontological theories revolve around conformity to norms or rules and on upholding certain rights (Stanford Encyclopedia of Philosophy, 2020). Consequentialist or teleological theories define the moral decision based on the maximally beneficial outcome (Tsalikis & Fritzsche, 1989). Virtue ethics focus on the cultivation of a virtuous character (Annas, 2007). Finally, Care Ethics are a more recently described form of ethics that emphasize caring; some scholars consider these a subset of Virtue ethics (Halwani, 2003) while others (Elley-Brown & Pringle, 2019; Tronto, 1987; Willey & Owen, 2023) place them into a category of their own.

*Deontological ethical theories* emphasize moral principles. The heart of these theories can be summed up in philosopher Immanuel Kant's Categorical Imperative, which essentially states that the morally correct action to take in a situation is the one that would best serve as a universal rule in all situations (Kant & Schneewind, 2002). Deontology holds rationality and logical reason as the critical tool for determining right and wrong. Northouse (2019) described *teleological theories* as those that encourage the use of the projected outcome of an action (or inaction) to determine the morality of that path. Consequentialist theories include egoism, in which the goal is to maximize personal long-term outcomes, and Utilitarianism, in which the goal is to maximize benefit to the largest possible majority (Tsalikis & Fritzsche, 1989). The famous phrase "the ends justify the means" is a summation of teleological or consequentialist thinking. *Virtue ethics*' roots can be traced to the philosopher Aristotle, and this theory places greater emphasis on the virtues that one should cultivate in order to be a moral individual; its focus is on building a virtuous character (Annas, 2007). Unlike Deontology and Consequentialism, which emphasize conduct, Virtue Ethics emphasizes character. As a theory it attempts to balance reason and emotion, or head and heart (Van Stavern, 2007). *Ethics of care* (EoC) is "an ethic of responsibility that stems from an awareness of interconnection (Gilligan, 1982, p. 57)." There are three basic assumptions that underpin ethical decision-making using EoC. First, that people are interdependent; second, that individuals deserve consideration in proportion to their vulnerability; and third, that how to promote the best interests of all is situationally dependent (Gilligan, 1982).

Cugueró-Escofet and Fortin's (2014) call for consideration of underlying normative ethical frameworks suggests that there is more work to be done in order to

integrate philosophy and social science when it comes to ethical issues. Some scholarship has done so, demonstrating that different viewpoints about ethics have meaningful consequences in the leadership realm. Adherence to these moral philosophies has been linked theoretically to different leadership styles; empirical research by Groves and LaRocca (2011) provides support for the idea that deontological ethics is associated with transformational leadership and teleological (consequentialist) ethics is related to transactional leadership. Fritzsche and Becker (1984) linked underlying ethical philosophy with management decision-making, and Reynolds (2006) provided evidence that an individual's alignment with specific ethical predispositions moderates responses to moral issues.

It is much more common within the social sciences to explore ethical and moral issues using descriptive frameworks (Brown & Mitchell, 2010). This is in large part related to the want of validated measurements of normative frameworks. While some scholars are bridging that gap (Groves & LaRocca, 2011; Reynolds, 2006; Willey & Owen, 2023), until stronger scale development has occurred, the field is likely to predominantly adopt a descriptive rather than normative lens for empirical exploration of morality. Additionally, there is value to incorporating a descriptive lens; Brown et al. (2005) purposely chose to build the construct of ethical leadership using a descriptive lens. Therefore, this study will not incorporate normative ethical theories into our model but will instead draw from established descriptive moral theories.

**Descriptive Moral Theories**

Business literature has used a variety of frameworks to define individual ethical ideologies, drawing from philosophical literature and psychology to varying degrees.

Schlenker and Forsyth (1977) and Forsyth (1980) defined individual ideology as a function of two dimensions, each of which exists on a continuum: relativism and idealism. In this framework, an individual could fall into one of four categories – situationist, absolutist, subjectivist, or exceptionist – depending upon their level of idealism and their level of relativism (Barnett et al., 1994). Cavanagh et al. (1981) categorize three moral theories: utilitarian, theories of rights, and theories of justice. A particularly popular descriptive ethical theory is Moral Foundations Theory.

**Moral Foundations Theory**

Moral Foundations Theory (MFT) (Haidt, et al., 2009) attempts to provide a universally applicable way to describe individual morality in a modular form. Originally, five domains of morality were included in the model, but the theory specified that others could exist and may be discovered over time. The original five domains of human morality within MFT are (1) care/harm, (2) fairness/cheating, (3) loyalty/betrayal, (4) sanctity/degradation, and (5) authority/subversion. A sixth dimension, (6) liberty/oppression, is also sometimes included in more recent literature (Fehr et al., 2015).

Moral Foundations Theory is built upon four core assumptions: (1) nativism, (2) cultural learning, (3) intuitionism, and (4) pluralism (Graham et al., 2013). The Moral Foundations construct assumes that there are elements of nature and nurture present in the process of moral development. Nativism describes the inherent blueprint humans are born with, a metaphorical first draft. Cultural learning provides the shaping of that draft into a more complete set of norms. Intuitionism speaks to the support in psychology research (Garrigan et al., 2008) for the tendency of people to make decisions in a more

intuitive and less reasoned manner. In line with evolutionary thinking, Moral Foundations is grounded in pluralism, with each of the foundations seen as having developed in response to adaptive challenges (Graham et al., 2013).

The five moral domains can be thought of as belonging to two overall categories: individualizing and binding foundations (Graham & Haidt, 2010). *Individualizing* foundations are those that align with the foundational moral domains used in moral psychology, that is care, derived from Gilligan (1982), and justice, as described by Kohlberg (1921); they are considered individualizing due to their emphasis on protecting individuals and their rights (Graham & Haidt, 2010). In contrast, the *binding* foundations consist of those that function at a group level, rooted in collectivism and servicing to manage social hierarchies and the health of a community (Davis, et al., 2016) These binding foundations comprise the loyalty, authority, and purity dimensions (Graham & Haidt, 2010). The difference between individualizing and binding foundations can also be thought of as the contrast between core values which hold consistent across context, and peripheral or second-order values that may have varying relevance depending on context (Napier & Luguri, 2013). This distinction between individualizing and binding is relevant in the context of ethical leadership, given that there are items on the commonly used Ethical Leadership Scale (Brown et al., 2005) that directly name caring and fairness, but no questions are associated with the binding foundations. (See Appendix A for the full scale.)

While MFT is meant to represent universal themes that can be found across cultures, scholars are still testing its applicability in various settings. Doğruyol et al. (2019) demonstrated support for the five-factor structure of the model in WEIRD

(Western, educated, industrialized, rich, democratic) cultures as well as non-WEIRD cultures. However, Iurino and Saucier (2020) tested the five-factor model across nearly 30 countries and were unable to support the universal generalizability of MFT. While there were limitations of the study design that could have hampered the ability to reach a generalizable result, the differences between the population sampled and the more homogeneous samples of prior studies may indicate that the theory does not generalize to all populations. Davis et al. (2015) demonstrated that Black people in the United States did not replicate expected results based on past studies of moral foundations and political leanings within predominantly white samples from the same country. In predominantly white samples, the relationship between conservativism and the binding foundations (loyalty, authority, and purity) is well-established (Graham et al., 2009; Reynolds et al., 2020). However, Davis et al. (2015) suggested that the weaker relationship between conservativism and the binding moral foundations among Black Americans may relate to the higher levels of religiosity even among liberal-identifying Black people. They further point out that the questions used to assess the loyalty foundation include items related to family and country, which may not be the most significant in-groups to whom a respondent feels loyalty. It is important to consider that additional exploration of the boundary conditions of MFT is ongoing.

Despite these potential limitations, Moral Foundations Theory has been used extensively across social science research and yielded important insights. It has been a popular tool for understanding differences in perceptions and sensemaking across political spectrums both in the United States (Clifford & Jerit, 2013; Fulgoni et al., 2016) and abroad (Nilsson & Erlandsson, 2015; Yalçındağ et al., 2019). Considerations of how

moral foundations influence behavior have been applied to various business concerns including charitable giving to nonprofits (Winterich et al., 2012), consumer purchasing habits such as preference for local consumption (Im et al., 2022), and corporate communication strategies (Trayner, 2017). Within the leadership realm, scholars have examined moral foundations as a factor that influences leadership perceptions (Mirowska et al., 2021), including perceptions of ethical leadership (Egorov et al., 2020; Fehr et al., 2015).

**Morality/Ethics and Leadership Theories**

There are numerous theories of leadership, many of which incorporate concerns for ethics or morals within the construct. For example, transformational leadership examines the charismatic and affective elements of leadership (Northouse, 2019). Descriptions of transformational leadership often include the words “ethics” or “morals,” (Bass, 1999; ElKordy, 2013; Northouse, 2019), especially in the original conceptualization of this perspective, introduced by Burns (1978). The concept of ethics is similarly intertwined with the definition of servant leadership, which emphasizes attentiveness to and nurturing of followers (Northouse, 2019). Another leadership theory, authentic leadership, is a values-based leadership developed in response to unethical conduct on the part of corporate and government leaders (Gardner et al., 2011). Despite the inclusion of morality and ethics as a component of some leadership theories, only ethical leadership approaches the importance of ethical behavior directly, which is thus the core focus of this research.

**Congruence / Alignment**

Much of the research on ethical leadership has focused on main effects, examining antecedents or outcomes of ethical leadership. However, an abundance of research in other leadership theories has examined the congruence between leaders and followers, and the subsequent impact on leadership outcomes. For example, Leroy et al. (2012) linked authentic leadership with authentic followership, with congruence positively affecting workplace outcomes. Zhang et al. (2012) demonstrated that congruence between a leader's and a follower's proactive personality predicts effective didactic relationships. Within transformational leadership research, leader and follower value system congruence is linked positively with transformational leadership (Krishnan, 2022).

Moral foundations are an area of potential (mis)alignment, as well. The theoretical concept, after all, includes the supposition that various cultures construct different moral frameworks from shared building blocks. Studies often show differences between Moral Foundations tendencies between countries (AlSheddi et al., 2020; Kim et al., 2012; Sychev et al., 2022). Gender or sex also fosters differing tendencies towards certain foundations; Atari et al. (2020) observed that women tended to value care, fairness, and purity more than men across a sample of people from nearly 70 countries. The differences in Moral Foundations of people across the political spectrum is well-studied. In the United States, for example, liberals tend to emphasize the harm/care and fairness/reciprocity foundations while conservatives tend to rely on all five of the moral foundations equally (Graham et al., 2009). Similar patterns have been observed in other nations (Di Battista et al., 2020; Turner-Swinkels et al., 2021); though sometimes with a

degree of variance likely related to broader cultural differences between countries (Kim et al., 2012), and with some making a distinction between liberal-conservative and left-right (Kivikangas et al., 2017).

Egorov et al. (2020) demonstrated that the congruence of moral foundations of leaders and followers significantly impact their respective perceptions of what is "normatively appropriate." Given that ethical leadership is commonly defined in relation to what is "normatively appropriate," this is an important consideration for how followers may rate a leader in terms of ethical leadership. The fit or congruence between leaders' and followers' ethical and moral preferences has been identified by Brown and Mitchell (2010) as an emerging trend within organizational leadership research; they further suggest the importance of considering the binding moral foundations in addition to the individualizing foundations that are commonly used within social science.

**Formulating Hypotheses**

The construct of ethical leadership contains within its very definition that followers consider a leader's actions to be normatively appropriate (Brown & Trevino, 2006). What is considered normatively appropriate will vary between leaders and followers, as discussed above. These differences can emerge from many differences, including cultures, occupational / work settings, belief systems, and more. Previous research has demonstrated that congruence between moral foundations impacts what a follower considers to be normatively appropriate (Egorov et al., 2020). We take that finding a step further in this research. Just as followers have a schema in mind of their conception of a leader (Lord, 2020), we believe followers will evaluate others' level of morality based on their own schema of ethics. Thus, we propose that ethical leadership

evaluations will be more favorable when a leader strongly expresses adherence to a specific moral foundation, and the strength of the relationship will be positively moderated by the level of emphasis a follower places on that foundation.

*Hypothesis 1a*: Ethical leadership evaluations will be more favorable when a leader strongly expresses adherence to the Care/Harm MFT dimension, and the strength of the relationship will be positively moderated by the level of emphasis a follower places on the Care/Harm MFT dimension.

*Hypothesis 1b*: Ethical leadership evaluations will be more favorable when a leader strongly expresses adherence to the Fairness MFT dimension, and the strength of the relationship will be positively moderated by the level of emphasis a follower places on the Fairness MFT dimension.

*Hypothesis 1c*: Ethical leadership evaluations will be more favorable when a leader strongly expresses adherence to the Loyalty MFT dimension, and the strength of the relationship will be positively moderated by the level of emphasis a follower places on the Loyalty MFT dimension.

*Hypothesis 1d*: Ethical leadership evaluations will be more favorable when a leader strongly expresses adherence to the Authority MFT dimension, and the strength of the relationship will be positively moderated by the level of emphasis a follower places on the Authority MFT dimension.

*Hypothesis 1e*: Ethical leadership evaluations will be more favorable when a leader strongly expresses adherence to the Purity MFT dimension, and the strength of the relationship will be positively moderated by the level of emphasis a follower places on the Purity MFT dimension.

The relative importance of each Moral Foundations dimension is not necessarily equal. We expect the congruence between a follower's emphasis on each Moral Moundations dimension and a leader's expressed emphasis on that dimension to have a heterogeneous relationship with ethical leadership perceptions, such that some attributes are more relevant than others for recognizing someone as an ethical leader. More specifically, individualizing moral foundations, that is care and justice, have been characterized as more salient for followers compared with binding moral foundations, particularly when abstract or analytical thought is required (Napier & Luguri, 2013; Yilmaz & Saribay, 2017). In Graham, Haidt, and Nosek's (2009) research comparing political liberals and conservatives in the United States, from where this study's sample will be drawn, the individualizing foundations are emphasized by liberals while all five foundations are relatively equally weighted by conservatives. Thus, the individual foundations are expected to be more universally applied by respondents. They are also the foundations whose characteristics appear in Brown et al.'s (2005) Ethical Leadership Scale. As such, we propose:

*Hypothesis 2*: Followers will place a greater amount of emphasis on the individualizing moral foundations (care and fairness) than for the binding moral foundations (loyalty, authority, and purity) when evaluating ethical leadership.

While everyone has a moral stance, not everyone grants the same importance to morality when defining to themselves and the world who they are. In other words, followers will vary in the extent that they believe morality is important in their self-concept, where some people will place a much greater emphasis on morality as part of their identity. A follower's level of moral identity has been shown to relate to the

evaluation of a leader as ethical or not, as well as employee behavior outcomes (Wang et al., 2019). We expect the interaction between a follower's emphasis on specific moral foundation dimensions and the leader profile's expression of that dimension will be stronger when the follower's moral identity is higher.

*Hypothesis 3a*: The interaction between a follower's emphasis on the care/harm MFT dimension and the leader profile's expression of the care/harm MFT dimension will be stronger when the follower's moral identity is higher.

*Hypothesis 3b*: The interaction between a follower's emphasis on the fairness MFT dimension and the leader profile's expression of the fairness MFT dimension will be stronger when the follower's moral identity is higher.

*Hypothesis 3c*: The interaction between a follower's emphasis on the loyalty MFT dimension and the leader profile's expression of the loyalty MFT dimension will be stronger when the follower's moral identity is higher.

*Hypothesis 3d*: The interaction between a follower's emphasis on the authority MFT dimension and the leader profile's expression of the authority MFT dimension will be stronger when the follower's moral identity is higher.

*Hypothesis 3e*: The interaction between a follower's emphasis on the purity MFT dimension and the leader profile's expression of the purity MFT dimension will be stronger when the follower's moral identity is higher.

Empirically, gender seems to play a role in shaping an individual's Moral Foundations (Atari et al., 2020). Theoretically, of the two individualizing Moral Foundations- care and fairness - the former is associated with Gilligan's (1982) Ethics of Care philosophy, which was initially considered a feminist ethic and was born of

experiments comparing male and female children's responses when presented with moral dilemmas. Fairness, on the other hand, is associated with Kohlberg's (1921) justice-focused moral development theory, which has been criticized for its development based on experiments with only male participants (Gilligan, 1977). Scholarship related to gender and morality/ethics focuses primarily on these two theories (Woods, 1996).

A number of scholars have explored gender differences in leadership (Eagly & Johnson, 1990; Eichenauer et al., 2022; Shen & Joseph, 2021) and the role of stereotypes, biases, and gender norms in shaping differing expectations for male versus female leaders (Diehl et al., 2020; Eagly & Karau, 2002; Kim et al., 2020; Rosette & Tost, 2010). While much of this work does not employ Moral Foundations Theory directly, there are findings that suggest that women may be expected to express the care/harm moral foundation more than men are expected to. For example, women leaders experience greater expectations of altruism (Heilman & Chen, 2005) than male leaders, and are expected to demonstrate sensitivity and strength to be perceived as effective, whereas male leaders who exhibit only strength are able to be perceived as effective (Johnson et al., 2008). Thus, we propose:

> *Hypothesis 4:* Leader expression of the care/harm moral foundation will have a stronger effect on ethical leadership perceptions for female leaders than male leaders independent of the follower's Moral Foundations profile.

## Chapter 3: Method

### Participants

The sample was recruited primarily from the student population (including undergraduate and graduate students) at a Midwestern University, representing fields

such as business, accounting, and psychology. Additional responses came from the author's professional network via social media recruitment. Given that leadership is important for individuals in many aspects of life, including work, the inclusion criteria were intentionally very broad. Specifically, participants were required to be at least 18 years old, a US resident, currently working for an employer or with intention to work for an employer in the future. Student participants received course credit for completing the study. No compensation was provided to participants from the researcher's professional and social network. A total of 464 participants responded. Respondents were removed for significant missing data and failing attention checks. The data screening processes are described in detail in Appendix B.

At the conclusion of data screening, there were 291 individual responses used for analysis, yielding 9,920 observations for analysis (i.e., unique leader profiles, of which each participant rated all possible combinations of high/low moral foundations). These represented respondents ranging in age from 18-82 years, 41% male and 58% female (with 2 respondents identifying as non-binary and 1 declining to respond), and the racial/ethnic composition was as follows: 73% White, 12% Black, 3% Asian, and 4% Hispanic/Latino (with 5% of the sample self-identifying outside of these categories and 8% declining to respond). Please see Table 2 for more demographic details.

**Materials and Design**

This study used policy-capturing, a simulation-based experimental technique that examines how individuals make decisions (Drescher & Garbers, 2016). Policy-capturing designs present a series of scenarios to participants, where characteristics or cues are manipulated (e.g., high versus low levels of attributes), and then participants are asked to

make evaluations or decisions based on each scenario with the manipulated attributes. Here, all five original dimensions of Moral Foundations Theory were manipulated and presented in all possible combinations. The analysis is able to examine the impact of these manipulated variables on follower perceptions, addressing how each informs decision-making. This method also mirrors real-world thought processes by allowing for the examination of multiple factors presented simultaneously.

Many scholars have demonstrated the effectiveness of policy-capturing as a research method for the investigation of causal relationships (Karren & Barringer, 2002). Specifically, the policy-capturing method can be used to understand evaluative judgments where real-world manipulations are not possible. Policy capturing has been used to explore issues across the business sector, including understanding the decision-making criteria of social venture capitalists (Miller & Wesley, 2010), the role of corporate social responsibility in human resources management (Lis, 2012; Tews et al., 2012), and managing inter-organizational relationships (Connelly et al., 2011; Seggie et al., 2013). Policy-capturing is also a well-established method within the leadership literature (Drescher & Garbers, 2016; Kaiser & Wallace, 2016; Tavares et al., 2018).

Leader profiles were constructed for all possible combinations of high v. low expression of each of the five moral foundations (i.e., 32 unique profiles). Sample profiles include: "*They intervene when customers are mistreating their subordinates, they apply policies unequally and let their favorite people skirt the rules, they never speak badly about their team outside of the team, they take care with their personal appearance and keep their space organized, and when they interact with their own boss, they are often rude and frequently disregard others' instructions*" and, "*They allow customers to*

*mistreat their subordinates, they apply policies to all members of their team in an equitable and unbiased way, they often bad-mouth their team to other people, they tend to be sloppy in their personal appearance and their space tends to be messy, and when they interact with their own boss they are respectful and comply with requests*." The full set of prompts is available in Table 1.

Profiles were pilot tested by asking a group of advanced doctoral students and business professionals to evaluate each based on the MFT definitions. We were prepared to refine the leader profiles based on feedback, but no additional edits to the profiles resulted from pilot testing. All respondents received every possible combination of high v. low for each of the five MFT dimensions, along with two repeated scenarios as an attention check (Karren & Barringer, 2002). Profiles were presented in randomized order. Due to a limitation of our survey software, we were unable to randomize the order of the MFT dimensions presented in the profiles. Participants were randomized between a set of profiles describing a female leader or a male leader; pronouns used to identify the gender identity of the leader were the only difference between these.

**Measures**

**Ethical Leadership**. Because Brown et al. (2005)'s ethical leadership scale contains ten items, it is not well-suited to the present study. First, the scale is too long to utilize in a policy-capturing design due to the risk of fatigue. Second, it is a particularly specific scale and not ideally suited to capturing an evaluation of ethical leadership based on the manipulated leader profiles. Instead, respondents were asked to answer the question, "Based on this description, please indicate how much you agree with the statement, 'This leader is ethical;' respondents were provided a slide bar with anchors

"strongly agree" and "strongly disagree," with the placement of their response corresponding to a 1-100 score.

**Moral Foundations Questionnaire.** The respondent's moral foundation profile was measured using Moral Foundations Questionnaire designed by Graham et al. (2011). This scale consists of 30 scored questions and two attention checks. The questionnaire is divided into two parts. Part 1 asks followers to rank a series of criteria on a 6-point Likert scale in response to the prompt, "When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking?" Sample responses include "Whether or not someone was cruel" and "Whether or not an action caused chaos or disorder." Part 2 contains statements such as "I am proud of my country's history" and "It is more important to be a team player than to express oneself;" respondents select a response from strongly disagree to strongly agree on a 6-point Likert scale. Coefficient alphas for each MFT dimension were 0.56 (care), 0.63 (fairness), 0.70 (loyalty), 0.71 (authority), and 0.80 (purity) in R Statistical Software (v.4.2.3; R Core Team, 2021) using the psych package (Revelle, 2024). The full measure can be found in Appendix C.

**Moral Identity.** A measure of the respondent's moral identity was captured using the Self-Importance of Moral Identity Scale developed by Aquino and Reed (2002). The measure consists of the prompt "Listed below are some characteristics that might describe a person: Caring, Compassionate, Fair, Friendly, Generous, Helpful, Hardworking, Honest, and Kind. The person with these characteristics could be you or it could be someone else. For a moment, visualize in your mind the kind of person who has these characteristics. Imagine how that person would think, feel, and act. When you have

a clear image of what this person would be like, answer the following questions." The ten items that follow are each rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*); two of the items include reverse scoring. The scale coefficient alpha was 0.80 in R Statistical Software (v.4.2.3; R Core Team, 2021) using the psych package (Revelle, 2024). The full measure can be found in Appendix D.

## Procedures

We instructed participants that the study was being conducted to explore people's attitudes toward managers. Participants were asked to imagine that they were considering taking a new job and would be presented with a series of descriptions of the supervisor they would report to, based on feedback from current and former staff. Upon reviewing each description, they were asked to rate how ethical they perceived the leader who was described. Participants were instructed to be completely honest and to take a break if they felt fatigued.

### *Power and Sample Size*

Policy capturing results, when analyzed using HLM is somewhat different than typical samples in that the power of individual analysis is based on the number of scenarios presented rather than the number of subjects participating (Karren & Barringer, 2002). Because each participant was presented with all possible scenarios combining all high/low Moral Foundations dimensions, "leaders" in this case are level 1 variables, which are nested within participants "level 2". Taking into consideration the need to achieve enough power for each factor and simultaneously mitigate the risk of fatigue, Karren and Barringer (2002) recommend developing at least 5 scenarios for each factor or cue. Our design includes 32 scenarios (profiles) and five cues (MFT dimensions),

representing a ratio of 6.4 scenarios per cue, exceeding the minimum recommendation of Karren and Barringer (2002).

In terms of subjects, sample sizes of less than 50 participants are not uncommon when examining policy-capturing studies published in the literature (Karren & Barringer, 2002). A larger sample, however, has an advantage when examining individual differences between respondents (Karren & Barringer, 2002). Given that we were interested in differences between the level of importance subjects gave to each of the MFT dimensions, we aimed for a larger sample size. Our sample of 291 is very large compared to the samples often included in policy-capturing designs (Karren & Barringer, 2002).

***Reliability Testing***

As called for by Zho et al. (2021), we performed a consistency check using test-retest reliability on the repeated policy capturing profiles in our data. For each of the repeat profiles, we computed a two-way mixed model consistency intraclass correlation (ICC) for our dependent variable (ethical leadership). Koo and Li (2016) demonstrate this metric of reliability is appropriate for testing intrarater reliability with multiple scores from the same rater, and suggest that values less than 0.50 are indicative of poor reliability, values between 0.5 and 0.75 indicate moderate reliability, values between 0.75 and 0.90 indicate good reliability, and values greater than 0.90 indicate excellent reliability. The mean reported test-retest reliability reported in policy-capturing studies per Zho et al. (2021) was 0.78. The ICC for our profile 00000 was 0.73, and the ICC for our profile 01101 was 0.68, representing moderate reliability. We elected to proceed with

analysis without removing additional respondents to maintain a large sample size and preserve statistical power.

We also conducted a confirmatory factor analysis (CFA) on the 30-question Moral Foundations Questionnaire (Graham, et al., 2011). Even when using a scale that has been validated in previous research, it is a good practice to conduct CFA on the working data set to confirm the theoretical constructs are present in the data set (Levine, et al., 2006). We conducted CFA in R Statistical Software (v.4.2.3; R Core Team, 2021) using the lavaan package (Rosseel, 2012). The results were not indicative of a good fit ($\chi^2$ [395] = 1238.72, $p < .001$; CFI = 0.695; RMSEA = 0.088; SRMR = 0.101; Hu & Bentler, 1999). Attempting to re-run after cutting specific questions did not result in a better overall model fit. Research on the factor structure of the questionnaire is limited, and it is not uncommon for studies to find the degree of fit lower than traditional criteria (Egerov et al., 2020). We elected to proceed with analysis despite this underwhelming CFA given that the questionnaire is widely used and was presented in an unmodified form to our subjects. However, the poor model-data fit presents a limitation with the analyses including this particular scale.

## Chapter 4: Results

### Data Screening

Prior to conducting the analyses, data were screened for completeness as described in Appendix B. A total of 291 responses were used for analysis. Due to the within-subjects nature of the study design (each participant rated 32 different profiles), these participants delivered a total of 9,920 observations despite missing responses from some participants on some profiles.

### *Treatment of missing data*

Responses missing from the Moral Identity Scale were left as null. The responses to the ten survey questions were averaged (after adjusting the two reverse-scored measures). No participant was missing any more than one response, so no imputation was performed and the average of all questions with a response was treated as the moral identity variable.

The Moral Foundations Questionnaire contained 32 questions, two of which were attention checks. Six questions corresponded to each of the five dimensions respectively. Participant responses to questions corresponding to a dimension were averaged to provide a score for that dimension. No respondent was missing more than one response to a question within any given dimension; for those cases the average of the five responses available was used.

Subjects who did not respond to one or more of the leader profiles kept a null response for those items. There is no logical means of imputing this missing data, and the method of analysis does not call for it. Through the analysis, we allowed the N for the dependent variable of ethical leadership perception to vary based on the number of relevant responses for each of the dimensions' manipulated high and low variables.

## Analyses

We analyzed our data using hierarchical linear modeling or HLM (Woltman, et al., 2012). This method is suitable for data that is not organized at a single level, but in which some variables are nested within others (Field, 2012). HLM employs random coefficient models (RCM) that allow for the examination of variance within and between subjects, which is ideal for policy-capturing data (Drescher & Garbers, 2016). Level 1

analysis examined perceptions of ethical leadership using ordinary least square regression equations, with ethical leadership perceptions varied according to the high or low expression of each of the five moral foundations dimensions. These foundations are represented in all tables as PMFH (care), PMFF (fairness), PMFL (loyalty), PMFA (authority), and PMFP (purity). This allowed us to pool the cue coefficients (beta weights) to determine the average importance of each MFT dimension across individuals.

The Level 2 (between-subject) analysis used a restricted maximum likelihood approach. The intercept and slope coefficients estimated in the Level 1 model were regressed onto the Level 2 predictors (subject's moral foundation, subject's moral identity, profile's randomized gender). These analyses allowed us to test whether the personal variables were associated with variance in regression slopes across individuals and to determine the moderating relationship between independent and dependent variables. All HLM analyses were conducted in R Statistical Software (v.4.2.3; R Core Team, 2021) using package lme4 (Bates et al., 2014).

**Preliminary Analysis**

Data at Level 2 were grand-mean centered (Enders & Tofighi, 2007) prior to beginning analysis. We elected not to center Level 1 predictors because these levels were experimentally controlled and equal for all subjects; centering would not meaningfully change the obtained values (Hoffmann & Gavin, 1998).

To confirm that HLM is an appropriate methodology for the data collected, we first ran an intercept-only model to examine the intraclass correlation coefficient (ICC) using the sjstats package (Lüdecke, 2022). Many scholars regard 0.05 as a rough cutoff for an ICC significantly large to justify HLM (Hox, 1998); the ICC here is 0.12,

indicating that 12% of the variance in ethical leadership perceptions is attributable to the Level 2 grouping variable (i.e., subjects). The results of this model are shown in Table 3.

Next, we ran a random intercepts model. The results indicate that each of the manipulated leader expressions of the moral foundations dimensions are significant predictors of ethical leadership perceptions. The results of this model are found in Table 4. A likelihood ratio test conducted with ANOVA comparing these two models indicates a significant difference between the two models ($\Delta\chi^2[10] = 4849.80$, $p < .001$; See Table 5).

We then ran a random intercepts and random slopes model, the results of which can be viewed in Table 6. Another ANOVA comparing the random intercepts model with the random intercepts and random slopes showed a significant improvement in model fit ($\Delta\chi^2[20] = 1174.9$, $p < .001$; See Table 7). Accordingly, this improvement in fit indicates that freely estimating random slopes in addition to random intercepts improves the model fit beyond a model that only allows random intercepts.

**Leader Profile Moral Foundations and Ethical Leadership**

Prior to testing hypotheses, we examined a model of the main effects of the leader profile expression of the Moral Foundations dimensions. Although this was not required for examining the interaction effects, it was important to first establish that the more positive (i.e., high level) of each of the Moral Foundations dimensions were associated with evaluations of more ethical leadership. As expected, each of the five dimensions was positively and significantly related to ethical leadership evaluations ($R^2 = .37$, $p < .001$). Estimates for each of the dimensions were $\beta = 14.15$ (care), $\beta = 20.22$ (fairness), $\beta =$

13.51 (loyalty), $\beta$ = 12.9 (authority), and $\beta$ = 3.79 (purity). Results are available in Table 8.

**Hypothesis Tests**

Hypothesis 1 stated that ethical leadership evaluations would be more favorable when a leader strongly expresses adherence to a specific MFT dimension, and that the strength of that relationship would be positively moderated by a higher level of emphasis on the same dimension by the follower. To test hypotheses 1a-1e, we tested cross-level interactions between the manipulated profile moral foundations and the subject's moral foundations scores. All effects were tested in the same model; which had -2LL of 78934.3 at 9117 degrees of freedom with a conditional $R^2$ = 0.62. There were no significant interactions between subject and profile levels of the Care/Harm MFT dimension (H1a; $\beta$ = 1.39, $p$ = 0.092), the Fairness MFT dimension (H1b; $\beta$ = 1.67, $p$ = 0.104), or the Loyalty MFT dimension (H1c; $\beta$ = -0.11, $p$ = 0.845), thus hypotheses 1a-1c were not supported. For the Authority MFT dimension, the estimate for the subject and profile interaction was statistically significant ($\beta$ = 2.58, $p$ < 0.001), providing support for Hypothesis 1d. We ran a simple slopes analysis to further examine the relationship between leader expression of authority and ethical leadership in relation to subject levels of authority. When subjects had a high level of authority, the relationship between the leader profile's level of authority and ethical leadership was positive and significant ($\beta$ = 15.326, $p$ < 0.001). When subjects had a lower level of authority, the relationship was positive but weaker ($\beta$ = 10.682, $p$ < 0.001; see Table 9). For the Purity MFT dimension, the estimate for the subject and profile interaction was statistically significant ($\beta$ = 1.11, $p$ = 0.001), providing support for Hypothesis 1e. We ran a simple

slopes analysis to further examine the relationship between leader expression of purity and ethical leadership in relation to subject levels of purity. When subjects had a high level of purity, the relationship between the leader profile's level of purity and ethical leadership was positive and significant ($\beta = 5.091$, $p < 0.001$). When subjects had a lower level of purity, the relationship was positive but weaker ($\beta = 2.577$, $p < 0.001$; See Table 10). Results for hypothesis 1a-1e are available in Table 11. Visual plots were created using the ggeffects package (Lüdecke, 2018), and are shown in Figures 1-5.

Hypothesis 2 stated that followers will place a greater amount of emphasis on the individualizing moral foundations (care and fairness) than on the binding moral foundations (loyalty, authority, and purity) when evaluating ethical leadership. We ran inferential testing for each possible combination of an individualizing and binding moral foundation using the car package (Fox & Weisberg, 2019). These were six different pairwise comparisons between the coefficients of an individualizing and a binding foundation (care:loyalty, care:authority, care:purity, fairness:loyalty, fairness:authority, and fairness:purity). Through linear hypothesis testing, we examined if there was a statistically significant result between the coefficients for each pair in the model represented in Table 11 compared to a restricted model holding the two foundations equal. The fairness MFT dimension ($\beta = 1.67$) was significantly different from the three binding foundations loyalty ($\beta = -0.11$; $\chi^2[1] = 71.389$, $p < 0.001$), authority ($\beta = 2.58$; $\chi^2[1] = 48.41$, $p < 0.001$), and purity ($\beta = 1.11$; $\chi^2[1] = 342.55$, $p < 0.001$). For the care MFT dimension ($\beta = 1.39$), there was not a significant difference compared to loyalty ($\beta = 0.11$; $\chi^2[1] = 0.625$, $p = 0.429$) or authority ($\beta = 2.58$; $\chi^2[1] = 1.1198$, $p = 0.29$), but

there was for purity ($\beta$ = 1.11; $\chi^2$ [1] = 203.59, $p$ <0.001). Thus hypothesis 2 is partially supported. See Table 12 for these results.

Hypotheses 3a-e stated that the interaction between a follower's emphasis on a specific MFT dimension and the leader profile's expression of that dimension will be stronger when the follower's moral identity is higher. To test this hypothesis, specified a model with three-way interactions, adding the subject's moral identity to the model used to test hypothesis 1. None of the three-way interactions were significant. (care: $\beta$ = -2.07, $p$ = 0.114; fairness: $\beta$ = 0.94, $p$ = 0.573; loyalty: $\beta$ = -0.67, $p$ = 0.496; authority: $\beta$ = 0.74, $p$ = 0.514; and purity: $\beta$ = -0.42, $p$ = 0.515). Accordingly, hypotheses 3a-3e were not supported. Results of this test are in Table 13.

Hypothesis 4 stated that leader expression of the care/harm MFT dimension will have a stronger effect on ethical leadership perceptions for female leaders than male leaders independent of leader-follower congruence on that dimension. To test this hypothesis, we ran a two-way interaction model comparing the manipulated gender of the leader profile with the manipulated expression of the care foundation by the leader profile. There was not a significant interaction between profile gender and evaluations based on profile expression of the Care/Harm MFT dimension ($\beta$ = 2.19, $p$ = 0.054). See Table 14 for results and Figure 6 for a visual representation using ggeffects (Lüdecke, 2018).

**Exploratory Analysis**

Upon completing analysis of these four hypotheses, we conducted additional exploratory analysis. Although there was no statistically significant effect between profile gender and ethical leadership perceptions at low v. high expression of the Care/Harm

MFT dimension, the visual result (Figure 6) suggests that in fact, female leaders were rated as more ethical than male leaders at both high and low levels of the Care/Harm MFT dimension. We conducted the same analysis on each of the MFT dimensions and found no significant interaction between profile gender and profile MFT dimension score (fairness: $\beta$ = 1.11, $p$ = 0.462; loyalty: $\beta$ = 0.74, $p$ = 0.471; authority: $\beta$ = -0.32, $p$ = 0.794; and purity: $\beta$ = -0.57, $p$ = 0.464), but in all cases the visual plots showed female leaders receiving higher ethical leadership scores at high and low levels of expression. We believe this is worthy of further exploration in future studies as described below.

An additional variable we tested in exploratory analysis was the political affiliation of respondents. A sizeable proportion of Moral Foundations Theory research explores themes across Moral Foundations profiles and political leanings in the United States (Clifford & Jerit, 2013; Kivikangas et al., 2021) and in other countries (e.g., Harper & Hogue, 2019; Park & Ishii, 2024; Yilmaz et al., 2016). In other words, participant differences may subsequently influence how participants perceive the importance of different leader attributes or behaviors in forming opinions about ethical leadership. We tested for the interaction between each MFT dimension and ethical leadership perceptions with political affiliation as a moderator.

The results revealed significant interactions for the care foundation ($\beta$ = -1.12, $p$ < 0.05), authority ($\beta$ = 1.73, $p$ < 0.001), and purity ($\beta$ = 0.71, $p$ < 0.05; See Table 15). Examination of a simple slopes assessment for each of these foundations show that ethical leadership perceptions are higher when the leader's level of each of these dimensions is higher, but differ based on political affiliation in more nuanced ways. When participants were more liberal, care was positively and more strongly related to

ethical leadership behaviors ($\beta$ = 15.354, $p$ < 0.001), but when participants were more conservative, care was positively but more weakly related to ethical leadership perceptions ($\beta$ = 12.474, $p$ <0.001; Table 16). When participants were more conservative, authority was positively and more strongly related to ethical leadership behaviors ($\beta$ = 15.178, $p$ < 0.001), but when participants were more liberal, authority was positively but more weakly related to ethical leadership perceptions ($\beta$ = 10.732, $p$ <0.001; Table 17). When participants were more conservative, purity was positively and more strongly related to ethical leadership behaviors ($\beta$ = 4.821, $p$ < 0.001), but when participants were more liberal, purity was positively but more weakly related to ethical leadership perceptions ($\beta$ = 2.983, $p$ <0.001; Table 18). See Figures 7-9 for visual plots of these interactions. This would suggest that the more liberal followers are, the more emphasis they place on care and the more conservative they are the more emphasis they place on authority and purity. This supports the rich body of research that has demonstrated a positive association between emphasis on the binding foundations and political conservativism (e.g., Graham et al., 2009; Kivikangas et al., 2021).

Finally, we examined participants' education levels in the same way. We tested for the interaction between each MFT dimension and ethical leadership perceptions with formal education level as a moderator. There were significant interactions for authority ($\beta$ = -1.826, $p$ <0.001) and purity ($\beta$ = -0.999, $p$ <0.05; see Table 19). Simple slopes assessment demonstrates that when participants were less educated, authority was positively and more strongly related to ethical leadership behaviors ($\beta$ = 15.267, $p$ < 0.001), but when participants were more educated, authority was positively but more weakly related to ethical leadership perceptions ($\beta$ = 10.955, $p$ <0.001; see Table 20).

When participants were less educated, purity was positively and more strongly related to ethical leadership behaviors ($\beta = 4.99$, $p < 0.001$), but when participants were more educated, purity was positively but more weakly related to ethical leadership perceptions ($\beta = 2.63$, $p < 0.001$; see Table 21). Visual plots for the authority and purity MFT dimensions show that ethical leadership perceptions are higher when the leader's level of each of these dimensions is higher, but for followers with higher levels of formal education, ethical leadership perceptions at low levels of each foundation are higher than for followers with less formal education, and lower at higher levels than for less educated followers (see Figures 10-11 for these plots). This would suggest that more highly educated followers place less emphasis on authority and purity as measures of ethical leadership. Though results are not statistically significant, the visual plots for care, fairness, and loyalty suggest the opposite relationship, with higher levels of education increasing the apparent emphasis followers place on those dimensions (see Figures 12-14). The similar patterns in preference based on education and political affiliation is not surprising given the trend of correlation between higher levels of education and more liberal political views (Pew Research Center, 2016), but in the case of our data set the results of the Pearson correlation test between these variables was low ($r(9630) = 0.13$, $p < 0.001$).

## Chapter 5: Discussion

The overarching purpose of this research was to investigate the importance of Moral Foundations Theory dimensions in perceptions of ethical leadership, and how the importance of each dimension differs as a function of participants' individual differences. Although few of the hypotheses proposed in this study received support, the examination

of the data and exploratory analysis offer insight that is useful and paves the way for additional research. In the following sections, we elaborate on the implications of these findings, limitations, and directions for future research.

**Implications for Research**

To the best of our knowledge, this represents the first experimental study of leader-follower Moral Foundations interactions. It provides support for the relevance of each of the five Moral Foundations dimensions in evaluating ethical leadership. Further, these findings contribute to the trend identified by Brown and Mitchell (2010) in organizational leadership research to examine the fit or congruence between leaders and followers' ethical and moral preferences and extends the findings of Egerov et al. (2020) that congruence between leaders' and followers' moral foundations significantly impacts perceptions of what is normatively appropriate. These results provide support that for at least some MFT dimensions, followers will rate leaders who express these forms of ethical behavior more highly when the follower themself values that dimension.

The lack of support for our hypothesis that a high moral identity affects the strength of this relationship suggests that there may be an even wider universality to the importance of congruence. Given the impact ethical leadership can have on a variety of business outcomes, this study adds to the emerging body of literature that seeks to more deeply understand how differences between followers can influence perceptions of ethical leadership (e.g., Burks & Krupka, 2012; Perlis & Shannon, 2012; Schlegelmilch & Robertson, 1995; Vitell et al., 1993).

**Implications for Practice**

Ethical leadership is incredibly important in practice for running businesses that can maximize profit (Kim & Brymer, 2011), retain employees longer (Suifan et al., 2020), and improve employee satisfaction (Mostafa et al., 2021), as well as successful non-profit organizations (Benevene et al., 2018). Without ethical leadership, not only can companies find employee and customer retention challenging, they may open themselves up to scandals that can dominate the news (Segal, 2021; Tun, 2022). Beyond this, the long-term consequences of empowering unethical leaders to make important organizational decisions may reap disastrous consequences for organizations, the people within them, and other stakeholders. Numerous examples exist, involving various organizations, and could have been avoided had those organizations instead embraced ethical leaders (e.g., Enron, WorldCom).

This study provides additional evidence that ethical leadership perceptions are related to the expressed behavior of a leader. For people who hold leadership roles in business, modeling ethical behavior can result in followers viewing a leader as ethical. Despite the limited support for the hypotheses proposed in this study, the results do provide evidence that for at least some of the moral foundations (authority and purity), the degree to which a follower holds that foundation as important to them can influence how much the expression of that foundation on the part of a leader will impact how ethical they are perceived to be. Based on this, a leader may want to ensure they are acting ethically across these foundations, particularly if they know or suspect that their followers value these foundations.

Individuals in leadership roles who want to maximize perceptions as ethical in the eyes of their followers would do well to emulate the sample workplace behavior modeled in the leader profiles in this study. Intervening when customers mistreat employees, applying policies in equitable and non-biased ways, and avoiding speaking badly about team members to others appear to universally lead to improved ethical leadership perceptions. Taking care with personal appearance and keeping workspace neat and orderly also improves ethical leadership perceptions, and even more so when followers place more emphasis on the purity MFT dimension. Maintaining a respectful demeanor with and complying with requests from their boss will improve ethical leadership perceptions, but even more so when followers place more emphasis on the authority MFT dimension. These two dimensions may be even more important when followers are conservative and/or possess less formal education. This research provides some insights toward this end, and concurrently opens many new possibilities for future research to investigate the importance of MFT dimensions at a deeper level.

**Limitations**

Our sample largely represents an undergraduate student population. While the results should be generalizable due to the experimental nature of the study, it would be worth repeating in more diverse populations. A similar study restricted to a specific industry could also provide rich context in a more specialized setting. Although the scenarios were carefully designed to be generalizable to any situation where leadership is important, there is a possibility that in some contexts the importance of MFT dimensions may be more or less pronounced. For example, in industries where care/harm is central to a person’s role (e.g., healthcare), this dimension may operate differently. As another

example, in organizations with tall hierarchies and a clear chain of command (e.g., military), authority may carry greater weight. This research provides a start to this line of inquiry, but was necessarily designed to provide more general insights.

Additionally, a true test of "congruence" could not be conducted with this design. To keep the study's duration to a reasonable length, profiles were limited to a manipulation of high or low, as compared to the range of 1-6 for the participant measure of MFT dimensions. Profiles only featured limited aspects of a given dimension, so it is possible that while a statement about each dimension was made, the aspect of the dimension most important to a given respondent may have been left out. Profiles were designed to notate work-related manifestations of each dimension, but in a real-world setting, it is possible that a follower's knowledge of a leader's behavior outside of work would also color their evaluations.

Finally, the survey included 32 leader profiles that may have felt quite repetitive to participants. Fatigue effects can lead to poor data, and some scholars employ methods to test for these effects (Brown et al., 2002, Judge & Bretz, 1992). Due to limitations of our survey software and its output, we were not able to do direct testing for fatigue effects; however, this survey contained only 32 profiles, while there have been recommendations for including up to 60 or even 100 (Zhu, et al., 2022). The median survey response time was 18 minutes. Any fatigue effects could in part be attributable to the sheer number of profiles, but also that these were text-based descriptions and may not have been as engaging as leadership scenarios that include images, audio, and video. In future studies, a richer medium of content may be more engaging and provide additional context cues that may impact participants' judgments of ethical leadership.

**Future Directions**

Future studies may consider using policy-capturing as a method but diving deeper into a single moral foundation dimension to better understand congruence. A new study using policy-capturing could be limited to just two or three variables per scenario (profile), allowing cues to range between more levels than just a binary high v. low. Not only would this allow for a truer measurement of congruence, but it would also allow a more nuanced approach to the foundations. Our profiles contained a single statement related to each MFT dimension, potentially excluding a statement about the aspects of a given dimension that the respondents felt most strongly about. Such studies could also explore leader expressions of behavior in the workplace and information about their actions outside of the workplace. For example, a leader who is known to be unfaithful to their spouse may be viewed as unethical even if none of the other parties involved are members of the workplace, or the political leanings of a leader might influence ethical evaluations by followers.

This study opens the door to a myriad of additional questions to explore in future research. In particular, as alluded to above, we believe that a deeper dive into leader gender and ethical perceptions related to Moral Foundations is warranted. While our Hypothesis 4 was not supported, the resulting visual plot seems to suggest that at low levels of expression of care, female leaders are perceived as more ethical than male leaders. If supported in future studies, this would be directly in opposition to the relationship we had proposed. Based on prior research (e.g., Heilman & Chen, 2005; Johnson et al., 2008), we expected that female leaders would face a higher expectation to demonstrate care, and thus be penalized in ethical leadership evaluations for failing to

demonstrate this quality in line with those expectations. Despite the lack of a significant result, future studies should re-test this to determine if there is an effect in either direction. Manipulations that include names or pictures to identify male versus female leaders could make the gender effect question more salient for respondents.

Our exploratory analysis revealed an unexpected trend in higher emphasis on the care MFT dimension by more liberal respondents, and a higher emphasis on the authority and purity MFT dimensions by more conservative respondents. This supports existing evidence of increased emphasis on the binding foundations on the part of conservatives. There has been little investigation in ethical leadership research on political-spectrum affiliations, and following this with studies that incorporate that could lead to useful insights, particularly in an ever-increasingly polarized political environment. Another area for future research is the ways in which education level is related to moral thinking. We uncovered little research into Moral Foundations and their variance across education levels, but our exploratory analysis suggests that there may be relationships to uncover and seek to understand theoretically. This could have useful implications for practice.

We captured a variety of additional demographic data on participants, including their age, gender, race, and country of origin. There was nothing that stood out in this data set in regard to patterns of difference between these variables, but a study that more intentionally recruits for diversity across these identifiers and incorporates these variables, both for followers and leaders, into a model could uncover some very interesting interactions. Notably, there has been very little exploration to date of follower age and ethical leadership evaluations, but initial results by Karakuş (2018) suggest that this is an avenue worthy of exploration.

Beyond follower demographic characteristics and other individual differences, scholars have recently turned their attention to followership style as an important consideration regarding leader-follower relations (Uhl-Bien et al., 2014). Just like leadership style, which emphasizes behaviors as central to the leadership process (Northouse, 2024), followership also describes follower tendencies as a predisposition to behave in distinct ways, as well as how followers may perceive and relate to leaders differently. Future research may also consider how different followership styles could also interact with leadership behaviors, and reveal insights regarding compatibility or congruence.

While Moral Foundations Theory offers a meaningful tool for conducting empirical research into questions of morality and ethics and their implications in a variety of settings including business, its suitability for morality research is not without criticism (Kugler et al., 2014, Suhler & Churchland, 2011) and its ability to capture the underlying constructs is difficult to replicate (Egerov et al., 2020; Nilsson & Erlandsson, 2015). A necessary step in better evaluating ethical leadership perspectives through a lens of underlying moral beliefs of followers is the creation of empirical scales that align more directly with normative philosophical theories of ethics. This would allow for increased interdisciplinary exploration of these issues, and the ability to bring the rich history of philosophical thought and scholarship to empirical studies. The development of scales for Deontology, Consequentialism, Virtue Ethics, and Ethics of Care would be useful for conducting studies across business and various other fields, and could provide a better way to measure ethical frameworks for future congruence research.

## General Conclusions

Overall, this study provided additional evidence that ethical leadership perceptions are positively related to leader expression of each of the five dimensions of Moral Foundations Theory. It further demonstrated that for followers who value the authority and purity foundations, the follower’s moral foundations preferences moderate the relationship between ethical leadership perceptions and the leader's expression of those dimensions.

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**Table 1**

Sample demographics

| | | |
|---|---|---|
| Gender | | |
| Male | 119 | 41% |
| Female | 169 | 58% |
| Another | 2 | < 1% |
| Declined | 1 | < 1% |
| Age | | |
| 18-29 | 195 | 67% |
| 30-39 | 46 | 16% |
| 40-49 | 25 | 9% |
| 50-59 | 9 | 3% |
| 60-69 | 6 | 2% |
| 70-79 | 2 | < 1% |
| 80-89 | 1 | < 1% |
| Declined to Respond | 7 | 2% |
| Race | | |
| White | 211 | 73% |
| Black | 36 | 12% |
| Asian | 10 | 3% |
| Hispanic/Latino | 11 | 4% |
| Something Else | 15 | 5% |
| Declined | 8 | 3% |
| Education | | |
| Some High School | 1 | < 1% |
| High School Diploma | 13 | 4% |
| Some College | 74 | 25% |
| Associate Degree | 134 | 46% |
| Bachelor’s Degree | 28 | 10% |
| Master’s Degree | 31 | 11% |
| Doctorate Degree | 6 | 2% |
| Other/Declined | 5 | 2% |
| Politics | | |
| Very Conservative | 8 | 3% |
| Conservative | 49 | 17% |
| Somewhat Conservative | 64 | 22% |
| Somewhat Liberal | 80 | 27% |
| Liberal | 61 | 21% |
| Very Liberal | 24 | 8% |
| Declined to Respond | 5 | 2% |

| | | |
|---|---|---|
| Religion | | |
| Agnostic/Athiest | 74 | 25% |
| Buddhist | 1 | < 1% |
| Christian - Catholic | 77 | 26% |
| Christian - Protestant | 63 | 22% |
| Hindu | 2 | < 1% |
| Jewish | 3 | 1% |
| Muslim | 9 | 3% |
| Another | 55 | 19% |
| Declined to Respond | 7 | 2% |
| Disability | | |
| Yes | 23 | 8% |
| No | 264 | 91% |
| Something Else | 4 | 1% |
| Geography | | |
| Rural | 59 | 20% |
| Suburban | 172 | 59% |
| Urban | 59 | 20% |
| Declined to Respond | 1 | < 1% |
| Born in USA | | |
| Yes | 268 | 92% |
| No | 22 | 8% |
| Declined to Respond | 1 | < 1% |
| Field of Study (for current students) | | |
| Accounting | 39 | 13% |
| Biology | 2 | < 1% |
| Business | 154 | 53% |
| Education | 3 | 1% |
| Liberal Arts | 3 | 1% |
| Nursing | 2 | < 1% |
| Psychology | 26 | 9% |
| Social Work | 4 | 1% |
| Something Else | 22 | 8% |
| N/A or Declined to Respond | 36 | 12% |

**Table 2**

*Overview of the manipulation of moral foundation dimensions in the scenarios with the variables Care, Fairness, Loyalty, Sanctity, and Authority presenting at high and low levels.*

| Dimension | High | Low |
|---|---|---|
| Care | They intervene when customers are mistreating their subordinates. | They allow customers to mistreat their subordinates. |
| Fairness | They apply policies to all members of their team in an equitable and nonbiased ways. | They apply policies unequally, and let their favorite people skirt the rules. |
| Loyalty | They never speak badly about their team outside of the team. | They often bad-mouth their team to other people. |
| Sanctity | They take care with their personal appearance, and they keep their space organized. | They tend to be sloppy in their personal appearance, and their space tends to be messy. |
| Authority | When they interact with their own boss, they are respectful and comply with requests. | When they interact with their own boss, they are often rude, and they frequently disregard their boss's instructions. |

**Table 3**

Intercept-Only Model

| | | **EL** | |
|---|---|---|---|
| *Predictors* | *Estimates* | *CI* | *p* |
| (Intercept) | 36.23 | 35.12 – 37.35 | **<0.001** |
| **Random Effects** | | | |
| $\sigma^2$ | 598.37 | | |
| $\tau_{00\ ID}$ | 78.83 | | |
| ICC | 0.12 | | |
| $N_{\ ID}$ | 309 | | |
| Observations | 9150 | | |
| Marginal $R^2$ / Conditional $R^2$ | 0.000 / 0.116 | | |

**Table 4**

Random Intercepts Model

| | EL | | |
|---|---|---|---|
| *Predictors* | *Estimates* | *CI* | *p* |
| (Intercept) | 4.19 | 2.83 – 5.56 | **<0.001** |
| SMFH gmc | -3.99 | -5.98 – -2.01 | **<0.001** |
| SMFF gmc | 0.84 | -1.17 – 2.85 | 0.413 |
| SMFL gmc | 1.08 | -0.73 – 2.88 | 0.242 |
| SMFA gmc | -0.90 | -2.80 – 0.99 | 0.350 |
| SMFP gmc | -0.18 | -1.68 – 1.32 | 0.816 |
| PMFH | 14.15 | 13.38 – 14.91 | **<0.001** |
| PMFF | 20.22 | 19.46 – 20.99 | **<0.001** |
| PMFL | 13.51 | 12.74 – 14.27 | **<0.001** |
| PMFA | 12.90 | 12.14 – 13.66 | **<0.001** |
| PMFP | 3.79 | 3.02 – 4.55 | **<0.001** |
| **Random Effects** | | | |
| $\sigma^2$ | 346.82 | | |
| $\tau_{00\ ID}$ | 78.93 | | |
| ICC | 0.19 | | |
| $N_{\ ID}$ | 309 | | |
| Observations | 9150 | | |
| Marginal $R^2$ / Conditional $R^2$ | 0.370 / 0.487 | | |

Key to acronyms used:
SMFH: subject care moral foundation
SMFF: subject fairness moral foundation
SMFL: subject loyalty moral foundation
SMFA: subject authority moral foundation
SMFP: subject purity moral foundation

PMFH: profile care moral foundation
PMFF: profile fairness moral foundation
PMFL: profile loyalty moral foundation
PMFA: profile authority moral foundation
PMFP: profile purity moral foundation

**Table 5**

Anova 1

```
Data: MFT
Models:
model0: EL ~ 1 + (1 | ID)
model1: EL ~ 1 + SMFH.gmc + SMFF.gmc + SMFL.gmc + SMFA.gmc + SMFP.gmc +
PMFH + PMFF + PMFL + PMFA + PMFP + (1 | ID)
       npar   AIC   BIC logLik deviance  Chisq Df Pr(>Chisq)
model0    3 84965 84986 -42479    84959
model1   13 80135 80228 -40055    80109 4849.8 10  < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

Key to acronyms used:
SMFH: subject care moral foundation
SMFF: subject fairness moral foundation
SMFL: subject loyalty moral foundation
SMFA: subject authority moral foundation
SMFP: subject purity moral foundation
PMFH: profile care moral foundation
PMFF: profile fairness moral foundation
PMFL: profile loyalty moral foundation
PMFA: profile authority moral foundation
PMFP: profile purity moral foundation

**Table 6**

Random Slopes Random Intercepts Model

| | EL | | |
|---|---|---|---|
| Predictors | Estimates | CI | p |
| (Intercept) | 18.25 | 9.23 – 27.26 | <0.001 |
| SMFH | -3.72 | -5.68 – -1.75 | <0.001 |
| SMFF | 0.99 | -1.00 – 2.98 | 0.328 |
| SMFL | 0.64 | -1.15 – 2.43 | 0.482 |
| SMFA | -0.69 | -2.56 – 1.19 | 0.473 |
| SMFP | -0.20 | -1.68 – 1.29 | 0.797 |
| PMFH | 13.97 | 12.79 – 15.15 | <0.001 |
| PMFF | 20.01 | 18.53 – 21.49 | <0.001 |
| PMFL | 13.40 | 12.39 – 14.41 | <0.001 |
| PMFA | 13.02 | 11.83 – 14.21 | <0.001 |
| PMFP | 3.84 | 3.08 – 4.59 | <0.001 |
| Random Effects | | | |
| σ2 | 257.90 | | |
| τ00 ID | 237.37 | | |
| τ11 ID.PMFH | 75.40 | | |
| τ11 ID.PMFF | 137.92 | | |
| τ11 ID.PMFL | 46.00 | | |
| τ11 ID.PMFA | 77.15 | | |
| τ11 ID.PMFP | 10.61 | | |
| ρ01 | -0.50 | | |
| | -0.57 | | |
| | -0.63 | | |
| | -0.25 | | |
| | -0.15 | | |

ICC 0.40

N ID 309

Observations 9150

Marginal R2 / Conditional R2 0.365 / 0.618

Key to acronyms used:
SMFH: subject care moral foundation
SMFF: subject fairness moral foundation
SMFL: subject loyalty moral foundation
SMFA: subject authority moral foundation
SMFP: subject purity moral foundation
PMFH: profile care moral foundation
PMFF: profile fairness moral foundation
PMFL: profile loyalty moral foundation
PMFA: profile authority moral foundation
PMFP: profile purity moral foundation

**Table 7**

ANOVA: Random Intercepts v Random Slopes Random Intercepts

```
Data: MFT
Models:
model1: EL ~ 1 + SMFH.gmc + SMFF.gmc + SMFL.gmc + SMFA.gmc + SMFP.gmc +
PMFH + PMFF + PMFL + PMFA + PMFP + (1 | ID)
model2: EL ~ 1 + SMFH + SMFF + SMFL + SMFA + SMFP + PMFH + PMFF + PMFL
+ PMFA + PMFP + (1 + PMFH + PMFF + PMFL + PMFA + PMFP | ID)
       npar   AIC   BIC logLik deviance  Chisq Df Pr(>Chisq)
model1   13 80135 80228 -40055    80109
model2   33 79000 79235 -39467    78934 1174.9 20  < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

Key to acronyms used:
SMFH: subject care moral foundation
SMFF: subject fairness moral foundation
SMFL: subject loyalty moral foundation
SMFA: subject authority moral foundation
SMFP: subject purity moral foundation
PMFH: profile care moral foundation
PMFF: profile fairness moral foundation
PMFL: profile loyalty moral foundation
PMFA: profile authority moral foundation
PMFP: profile purity moral foundation

**Table 8**

Main effects of MFT dimensions on Ethical Leadership

| | | EL | |
|---|---|---|---|
| *Predictors* | *Estimates* | *CI* | *p* |
| (Intercept) | 4.19 | 2.83 – 5.56 | **<0.001** |
| SMFH gmc | -3.99 | -5.98 – -2.01 | **<0.001** |
| SMFF gmc | 0.84 | -1.17 – 2.85 | 0.413 |
| SMFL gmc | 1.08 | -0.73 – 2.88 | 0.242 |
| SMFA gmc | -0.90 | -2.80 – 0.99 | 0.350 |
| SMFP gmc | -0.18 | -1.68 – 1.32 | 0.816 |
| PMFH | 14.15 | 13.38 – 14.91 | **<0.001** |
| PMFF | 20.22 | 19.46 – 20.99 | **<0.001** |
| PMFL | 13.51 | 12.74 – 14.27 | **<0.001** |
| PMFA | 12.90 | 12.14 – 13.66 | **<0.001** |
| PMFP | 3.79 | 3.02 – 4.55 | **<0.001** |
| **Random Effects** | | | |
| $\sigma^2$ | 346.82 | | |
| $\tau_{00\ ID}$ | 78.93 | | |
| ICC | 0.19 | | |
| $N_{\ ID}$ | 309 | | |
| Observations | 9150 | | |
| Marginal $R^2$ / Conditional $R^2$ | 0.370 / 0.487 | | |

Key to acronyms used:
SMFH: subject care moral foundation
SMFF: subject fairness moral foundation
SMFL: subject loyalty moral foundation
SMFA: subject authority moral foundation
SMFP: subject purity moral foundation
PMFH: profile care moral foundation

PMFF: profile fairness moral foundation
PMFL: profile loyalty moral foundation
PMFA: profile authority moral foundation
PMFP: profile purity moral foundation

**Table 9**

Simple slopes assessment of authority dimension

```
> reghelper::simple_slopes(model3a)
   SMFA.gmc      PMFA Test Estimate Std. Error       df t value Pr(>|t|) Sig.
1  -0.90118    sstest       10.6815     0.8341 298.7045 12.8065  < 2e-16  ***
2 -0.001692    sstest       13.0037     0.5910 297.0032 22.0040  < 2e-16  ***
3  0.897796    sstest       15.3259     0.8315 301.2097 18.4315  < 2e-16  ***
4    sstest -0.003295       -1.9551     1.0081 337.7220 -1.9394  0.05329    .
5    sstest  0.496721       -0.6642     0.9558 301.7844 -0.6950  0.48762
6    sstest  0.996738        0.6266     1.0117 342.1828  0.6194  0.53608
```

Key to acronyms used:
SMFA: subject authority moral foundation
PMFA: profile authority moral foundation

**Table 10**

Simple slopes assessment of purity dimension

```
> reghelper::simple_slopes(model3p)
   SMFP.gmc      PMFP Test Estimate Std. Error       df t value  Pr(>|t|) Sig.
1 -1.135553    sstest        2.5770     0.5347 299.2248  4.8199 2.288e-06  ***
2 -0.004067    sstest        3.8338     0.3800 295.1004 10.0900 < 2.2e-16  ***
3   1.12742    sstest        5.0907     0.5344 300.9012  9.5254 < 2.2e-16  ***
4    sstest -0.000355       -0.7453     0.7751 318.6256 -0.9616    0.3370
5    sstest  0.499672       -0.1899     0.7580 302.4278 -0.2505    0.8024
6    sstest  0.999699        0.3655     0.7769 320.2065  0.4705    0.6383
```

Key to acronyms used:
SMFP: subject purity moral foundation
PMFP: profile purity moral foundation

**Table 11**

Cross-Level Interactions (Hypothesis 1 Test)

| | | EL | |
|---|---|---|---|
| *Predictors* | *Estimates* | *CI* | *p* |
| (Intercept) | 4.41 | 2.50 – 6.31 | **<0.001** |
| SMFH gmc | -4.44 | -6.56 – -2.32 | **<0.001** |
| SMFF gmc | 0.17 | -2.04 – 2.37 | 0.882 |
| SMFL gmc | 0.73 | -1.20 – 2.65 | 0.459 |
| SMFA gmc | -1.95 | -3.90 – 0.01 | 0.051 |
| SMFP gmc | -0.75 | -2.25 – 0.76 | 0.332 |
| PMFH | 13.97 | 12.80 – 15.14 | **<0.001** |
| PMFF | 20.01 | 18.54 – 21.47 | **<0.001** |
| PMFL | 13.40 | 12.40 – 14.41 | **<0.001** |
| PMFA | 13.01 | 11.85 – 14.16 | **<0.001** |
| PMFP | 3.84 | 3.10 – 4.58 | **<0.001** |
| SMFH gmc × PMFH | 1.39 | -0.22 – 3.00 | 0.092 |
| SMFF gmc × PMFF | 1.67 | -0.35 – 3.68 | 0.104 |
| SMFL gmc × PMFL | -0.11 | -1.16 – 0.95 | 0.845 |
| SMFA gmc × PMFA | 2.58 | 1.31 – 3.86 | **<0.001** |
| SMFP gmc × PMFP | 1.11 | 0.46 – 1.76 | **0.001** |
| **Random Effects** | | | |
| $\sigma^2$ | 257.90 | | |
| $\tau_{00\ ID}$ | 235.84 | | |
| $\tau_{11\ ID.PMFH}$ | 73.75 | | |
| $\tau_{11\ ID.PMFF}$ | 134.99 | | |
| $\tau_{11\ ID.PMFL}$ | 45.51 | | |

| | |
|---|---|
| $\tau_{11\ ID.PMFA}$ | 70.59 |
| $\tau_{11\ ID.PMFP}$ | 8.99 |
| $\rho_{01}$ | -0.52 |
| | -0.58 |
| | -0.62 |
| | -0.27 |
| | -0.17 |
| ICC | 0.39 |
| $N_{ID}$ | 309 |
| Observations | 9150 |
| Marginal $R^2$ / Conditional $R^2$ | 0.370 / 0.616 |

Key to acronyms used:
SMFH: subject care moral foundation
SMFF: subject fairness moral foundation
SMFL: subject loyalty moral foundation
SMFA: subject authority moral foundation
SMFP: subject purity moral foundation
PMFH: profile care moral foundation
PMFF: profile fairness moral foundation
PMFL: profile loyalty moral foundation
PMFA: profile authority moral foundation
PMFP: profile purity moral foundation

**Table 12**

Inferential testing on individualizing v. binding moral foundations

CARE v. LOYALTY

```
Linear hypothesis test

Hypothesis:
PMFH - PMFL = 0

Model 1: restricted model
Model 2: EL ~ 1 + SMFH.gmc + SMFF.gmc + SMFL.gmc + SMFA.gmc + SMFP.gmc
+
    PMFH + PMFF + PMFL + PMFA + PMFP + (1 + PMFH + PMFF + PMFL +
    PMFA + PMFP | ID)

  Df  Chisq Pr(>Chisq)
1
2  1 0.6245     0.4294
```

CARE v. AUTHORITY

```
Linear hypothesis test

Hypothesis:
PMFH - PMFA = 0

Model 1: restricted model
Model 2: EL ~ 1 + SMFH.gmc + SMFF.gmc + SMFL.gmc + SMFA.gmc + SMFP.gmc
+
    PMFH + PMFF + PMFL + PMFA + PMFP + (1 + PMFH + PMFF + PMFL +
    PMFA + PMFP | ID)

  Df  Chisq Pr(>Chisq)
1
2  1 1.1198       0.29
```

CARE v. PURITY

```
Linear hypothesis test

Hypothesis:
PMFH - PMFP = 0

Model 1: restricted model
Model 2: EL ~ 1 + SMFH.gmc + SMFF.gmc + SMFL.gmc + SMFA.gmc + SMFP.gmc
+
    PMFH + PMFF + PMFL + PMFA + PMFP + (1 + PMFH + PMFF + PMFL +
    PMFA + PMFP | ID)

  Df  Chisq Pr(>Chisq)
1
2  1 203.59  < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

FAIRNESS v. LOYALTY

```
Linear hypothesis test
```

```
Hypothesis:
PMFF - PMFL = 0

Model 1: restricted model
Model 2: EL ~ 1 + SMFH.gmc + SMFF.gmc + SMFL.gmc + SMFA.gmc + SMFP.gmc
+
    PMFH + PMFF + PMFL + PMFA + PMFP + (1 + PMFH + PMFF + PMFL +
    PMFA + PMFP | ID)

  Df  Chisq Pr(>Chisq)
1
2  1 71.389  < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

FAIRNESS v. AUTHORITY

```
Linear hypothesis test

Hypothesis:
PMFF - PMFA = 0

Model 1: restricted model
Model 2: EL ~ 1 + SMFH.gmc + SMFF.gmc + SMFL.gmc + SMFA.gmc + SMFP.gmc
+
    PMFH + PMFF + PMFL + PMFA + PMFP + (1 + PMFH + PMFF + PMFL +
    PMFA + PMFP | ID)

  Df Chisq Pr(>Chisq)
1
2  1 48.41  3.457e-12 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

FAIRNESS v. PURITY

```
Linear hypothesis test

Hypothesis:
PMFF - PMFP = 0

Model 1: restricted model
Model 2: EL ~ 1 + SMFH.gmc + SMFF.gmc + SMFL.gmc + SMFA.gmc + SMFP.gmc
+
    PMFH + PMFF + PMFL + PMFA + PMFP + (1 + PMFH + PMFF + PMFL +
    PMFA + PMFP | ID)

  Df  Chisq Pr(>Chisq)
1
2  1 342.55  < 2.2e-16 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

Key to acronyms used:
SMFH: subject care moral foundation
SMFF: subject fairness moral foundation
SMFL: subject loyalty moral foundation
SMFA: subject authority moral foundation

SMFP: subject purity moral foundation
PMFH: profile care moral foundation
PMFF: profile fairness moral foundation
PMFL: profile loyalty moral foundation
PMFA: profile authority moral foundation
PMFP: profile purity moral foundation

**Table 13**

Three-Way Interaction (Hypothesis 3 Test)

| | | EL | |
|---|---|---|---|
| *Predictors* | *Estimates* | *CI* | *p* |
| (Intercept) | -0.33 | -10.12 – 9.45 | 0.947 |
| SMI | 1.19 | -1.22 – 3.60 | 0.332 |
| SMFH gmc | -4.48 | -6.66 – -2.30 | **<0.001** |
| SMFF gmc | -0.17 | -2.44 – 2.10 | 0.884 |
| SMFL gmc | 0.66 | -1.30 – 2.61 | 0.510 |
| SMFA gmc | -1.91 | -3.89 – 0.08 | 0.060 |
| SMFP gmc | -0.78 | -2.31 – 0.75 | 0.317 |
| PMFH | 14.19 | 12.99 – 15.40 | **<0.001** |
| PMFF | 19.92 | 18.42 – 21.42 | **<0.001** |
| PMFL | 13.44 | 12.42 – 14.45 | **<0.001** |
| PMFA | 12.98 | 11.82 – 14.14 | **<0.001** |
| PMFP | 3.80 | 3.05 – 4.56 | **<0.001** |
| SMFH gmc × PMFH | 9.36 | -0.65 – 19.37 | 0.067 |
| SMFF gmc × PMFF | -1.81 | -14.43 – 10.82 | 0.779 |
| SMFL gmc × PMFL | 2.59 | -5.25 – 10.42 | 0.517 |
| SMFA gmc × PMFA | -0.43 | -9.51 – 8.64 | 0.925 |
| SMFP gmc × PMFP | -0.57 | -5.70 – 4.56 | 0.827 |
| (SMI × SMFH gmc) × PMFH | -2.07 | -4.64 – 0.50 | 0.114 |
| (SMI × SMFF gmc) × PMFF | 0.94 | -2.32 – 4.20 | 0.573 |
| (SMI × SMFL gmc) × PMFL | -0.67 | -2.60 – 1.26 | 0.496 |
| (SMI × SMFA gmc) × PMFA | 0.74 | -1.49 – 2.97 | 0.514 |
| (SMI × SMFP gmc) × PMFP | 0.42 | -0.85 – 1.69 | 0.515 |

**Random Effects**

| | |
|---|---|
| $\sigma^2$ | 257.87 |
| $\tau_{00\ ID}$ | 239.64 |
| $\tau_{11\ ID.PMFH}$ | 73.66 |
| $\tau_{11\ ID.PMFF}$ | 136.48 |
| $\tau_{11\ ID.PMFL}$ | 46.31 |
| $\tau_{11\ ID.PMFA}$ | 71.45 |
| $\tau_{11\ ID.PMFP}$ | 9.46 |
| $\rho_{01}$ | -0.51 |
| | -0.58 |
| | -0.62 |
| | -0.27 |
| | -0.17 |
| ICC | 0.40 |
| $N_{\ ID}$ | 309 |
| Observations | 9150 |
| Marginal $R^2$ / Conditional $R^2$ | 0.369 / 0.618 |

Key to acronyms used:
SMI: subject moral identity
SMFH: subject care moral foundation
SMFF: subject fairness moral foundation
SMFL: subject loyalty moral foundation
SMFA: subject authority moral foundation
SMFP: subject purity moral foundation
PMFH: profile care moral foundation
PMFF: profile fairness moral foundation
PMFL: profile loyalty moral foundation
PMFA: profile authority moral foundation
PMFP: profile purity moral foundation

**Table 14**

Hypothesis 4 Test

| | | EL | |
|---|---|---|---|
| *Predictors* | *Estimates* | *CI* | *p* |
| (Intercept) | 5.77 | 3.46 – 8.08 | **<0.001** |
| M1vF0 | -2.63 | -5.07 – -0.19 | **0.035** |
| PMFH | 12.83 | 11.18 – 14.48 | **<0.001** |
| PMFF | 20.01 | 18.53 – 21.48 | **<0.001** |
| PMFL | 13.40 | 12.39 – 14.41 | **<0.001** |
| PMFA | 13.02 | 11.84 – 14.21 | **<0.001** |
| PMFP | 3.83 | 3.08 – 4.59 | **<0.001** |
| M1vF0 × PMFH | 2.19 | -0.04 – 4.41 | 0.054 |
| **Random Effects** | | | |
| $\sigma^2$ | 257.92 | | |
| $\tau_{00\ ID}$ | 243.80 | | |
| $\tau_{11\ ID.PMFH}$ | 73.32 | | |
| $\tau_{11\ ID.PMFF}$ | 137.29 | | |
| $\tau_{11\ ID.PMFL}$ | 45.81 | | |
| $\tau_{11\ ID.PMFA}$ | 76.82 | | |
| $\tau_{11\ ID.PMFP}$ | 10.49 | | |
| $\rho_{01}$ | -0.49 | | |
| | -0.57 | | |
| | -0.64 | | |
| | -0.25 | | |
| | -0.15 | | |
| ICC | 0.40 | | |
| $N_{ID}$ | 309 | | |
| Observations | 9150 | | |
| Marginal $R^2$ / Conditional $R^2$ | 0.359 / 0.617 | | |

Key to acronyms used:
M1vF0: profile gender
PMFH: profile care moral foundation
PMFF: profile fairness moral foundation
PMFL: profile loyalty moral foundation
PMFA: profile authority moral foundation
PMFP: profile purity moral foundation

**Table 15**

Exploratory analysis of the interaction between subject political affiliation and ethical leadership perceptions based on each MFT dimension

| | EL | | |
|---|---|---|---|
| Predictors | Estimates | CI | p |
| (Intercept) | 5.25 | -0.11 – 10.62 | 0.055 |
| PoliticsNumeric | -0.19 | -1.71 – 1.33 | 0.809 |
| PMFH | 17.58 | 14.32 – 20.83 | <0.001 |
| PMFF | 21.92 | 17.85 – 25.98 | <0.001 |
| PMFL | 12.70 | 9.90 – 15.49 | <0.001 |
| PMFA | 7.30 | 4.08 – 10.52 | <0.001 |
| PMFP | 1.56 | -0.50 – 3.63 | 0.137 |
| PoliticsNumeric × PMFH | -1.12 | -2.04 – -0.19 | 0.018 |
| PoliticsNumeric × PMFF | -0.64 | -1.79 – 0.52 | 0.278 |
| PoliticsNumeric × PMFL | 0.20 | -0.59 – 1.00 | 0.614 |
| PoliticsNumeric × PMFA | 1.73 | 0.81 – 2.64 | <0.001 |
| PoliticsNumeric × PMFP | 0.71 | 0.13 – 1.30 | 0.017 |
| Random Effects | | | |
| σ2 | 257.37 | | |
| τ00 ID | 247.16 | | |
| τ11 ID.PMFH | 75.06 | | |
| τ11 ID.PMFF | 136.75 | | |
| τ11 ID.PMFL | 46.43 | | |
| τ11 ID.PMFA | 72.98 | | |
| τ11 ID.PMFP | 9.71 | | |
| ρ01 | -0.50 | | |
| -0.56 | | | |

-0.64

-0.24

-0.19

ICC 0.41

N ID 304

Observations 9002

Marginal R2 / Conditional R20.357 / 0.617

Key to acronyms used:
PoliticsNumeric: subject political affiliation
PMFH: profile care moral foundation
PMFF: profile fairness moral foundation
PMFL: profile loyalty moral foundation
PMFA: profile authority moral foundation
PMFP: profile purity moral foundation

**Table 16**

Simple slopes assessment of care dimension in relation to political affiliation

(lower value for “Politics Numeric” = more liberal)

| | PoliticsNumeric | PMFH | Test | Estimate | Std. Error | df | t value | Pr(>\|t\|) | Sig. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.98985 | | sstest | 15.3536 | 0.8590 | 291.9403 | 17.8730 | < 2e-16 | *** |
| 2 | 3.278271 | | sstest | 13.9140 | 0.6062 | 293.4297 | 22.9510 | < 2e-16 | *** |
| 3 | 4.566693 | | sstest | 12.4744 | 0.8568 | 293.2256 | 14.5598 | < 2e-16 | *** |
| 4 | | sstest | -0.001691 | -0.1857 | 0.7759 | 294.7177 | -0.2393 | 0.81105 | |
| 5 | | sstest | 0.498334 | -0.7444 | 0.6969 | 296.0792 | -1.0681 | 0.28633 | |
| 6 | | sstest | 0.998359 | -1.3030 | 0.6930 | 296.4528 | -1.8804 | 0.06103 | . |

**Table 17**

Simple slopes assessment of authority dimension in relation to political affiliation (lower value for “Politics Numeric” = more liberal)

| | PoliticsNumeric | PMFA | Test | Estimate | Std. Error | df | t value | Pr(>\|t\|) | Sig. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.98985 | sstest | | 10.7324 | 0.8508 | 289.8540 | 12.6147 | < 2e-16 | *** |
| 2 | 3.278271 | sstest | | 12.9552 | 0.6004 | 291.4412 | 21.5778 | < 2e-16 | *** |
| 3 | 4.566693 | sstest | | 15.1780 | 0.8484 | 291.3234 | 17.8909 | < 2e-16 | *** |
| 4 | sstest | -0.00346 | | -0.1935 | 0.7760 | 294.7109 | -0.2494 | 0.80323 | |
| 5 | sstest | 0.496556 | | 0.6691 | 0.7460 | 296.2999 | 0.8969 | 0.37049 | |
| 6 | sstest | 0.996572 | | 1.5317 | 0.7872 | 296.7864 | 1.9458 | 0.05263 | . |

**Table 18**

Simple slopes assessment of purity dimension in relation to political affiliation (lower value for “Politics Numeric” = more liberal)

| | PoliticsNumeric | PMFP Test | Estimate | Std. Error | df | t value | Pr(>\|t\|) | Sig. |
|---|---|---|---|---|---|---|---|---|
| 1 | 1.98985 | sstest | 2.9833 | 0.5442 | 287.7563 | 5.4818 | 9.209e-08 | *** |
| 2 | 3.278271 | sstest | 3.9020 | 0.3847 | 290.1345 | 10.1441 | < 2.2e-16 | *** |
| 3 | 4.566693 | sstest | 4.8208 | 0.5437 | 291.2069 | 8.8669 | < 2.2e-16 | *** |
| 4 | sstest | -2.8e-05 | -0.1876 | 0.7756 | 294.7226 | -0.2419 | 0.8091 | |
| 5 | sstest | 0.5 | 0.1690 | 0.7551 | 295.4267 | 0.2238 | 0.8231 | |
| 6 | sstest | 1.000028 | 0.5256 | 0.7638 | 295.7434 | 0.6881 | 0.4920 | |

**Table 19**

Exploratory analysis of the interaction between subject education level and ethical leadership perceptions based on each MFT dimension

| | | EL | |
|---|---|---|---|
| *Predictors* | *Estimates* | *CI* | *p* |
| (Intercept) | -4.51 | -12.90 – 3.87 | 0.292 |
| EducationNumeric | 1.79 | 0.15 – 3.44 | **0.032** |
| PMFH | 14.97 | 9.83 – 20.12 | **<0.001** |
| PMFF | 17.17 | 10.76 – 23.58 | **<0.001** |
| PMFL | 17.41 | 13.03 – 21.79 | **<0.001** |
| PMFA | 22.17 | 17.08 – 27.26 | **<0.001** |
| PMFP | 8.77 | 5.55 – 11.98 | **<0.001** |
| EducationNumeric × PMFH | -0.22 | -1.22 – 0.79 | 0.673 |
| EducationNumeric × PMFF | 0.57 | -0.68 – 1.83 | 0.373 |
| EducationNumeric × PMFL | -0.80 | -1.66 – 0.06 | 0.069 |
| EducationNumeric × PMFA | -1.83 | -2.82 – -0.83 | **<0.001** |
| EducationNumeric × PMFP | -1.00 | -1.63 – -0.37 | **0.002** |
| **Random Effects** | | | |
| $\sigma^2$ | 259.38 | | |
| $\tau_{00\ ID}$ | 245.61 | | |
| $\tau_{11\ ID.PMFH}$ | 75.92 | | |
| $\tau_{11\ ID.PMFF}$ | 138.75 | | |
| $\tau_{11\ ID.PMFL}$ | 45.80 | | |
| $\tau_{11\ ID.PMFA}$ | 73.80 | | |
| $\tau_{11\ ID.PMFP}$ | 8.47 | | |
| $\rho_{01}$ | -0.50 | | |
| | -0.58 | | |

| | |
|---|---|
| | -0.64 |
| | -0.23 |
| | -0.09 |
| ICC | 0.40 |
| $N_{ID}$ | 305 |
| Observations | 9022 |
| Marginal $R^2$ / Conditional $R^2$ | 0.358 / 0.617 |

Key to acronyms used:
EducationNumeric: subject education level
PMFH: profile care moral foundation
PMFF: profile fairness moral foundation
PMFL: profile loyalty moral foundation
PMFA: profile authority moral foundation
PMFP: profile purity moral foundation

**Table 20**

Simple slopes assessment of authority dimension in relation to education level (lower value for “Education Numeric” = less formal education)

| | EducationNumeric | PMFA | Test | Estimate | Std. Error | df | t value | Pr(>\|t\|) | Sig. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.778907 | sstest | | 15.2670 | 0.8524 | 293.8832 | 17.9116 | < 2e-16 | *** |
| 2 | 4.959876 | sstest | | 13.1110 | 0.6025 | 293.8716 | 21.7598 | < 2e-16 | *** |
| 3 | 6.140845 | sstest | | 10.9550 | 0.8495 | 297.7122 | 12.8963 | < 2e-16 | *** |
| 4 | sstest | -0.003342 | | 1.8008 | 0.8380 | 302.2032 | 2.1489 | 0.03243 | * |
| 5 | sstest | 0.496675 | | 0.8879 | 0.8089 | 303.7999 | 1.0977 | 0.27319 | |
| 6 | sstest | 0.996691 | | -0.0249 | 0.8576 | 304.1374 | -0.0291 | 0.97682 | |

**Table 21**

Simple slopes assessment of purity dimension in relation to education level

(lower value for “Education Numeric” = less formal education)

| | EducationNumeric | PMFP Test | Estimate | Std. Error | df | t value | Pr(>\|t\|) | Sig. |
|---|---|---|---|---|---|---|---|---|
| 1 | 3.778907 | sstest | 4.9900 | 0.5373 | 289.1340 | 9.2874 | < 2.2e-16 | *** |
| 2 | 4.959876 | sstest | 3.8100 | 0.3799 | 289.1241 | 10.0279 | < 2.2e-16 | *** |
| 3 | 6.140845 | sstest | 2.6301 | 0.5372 | 294.1667 | 4.8958 | 1.617e-06 | *** |
| 4 | sstest | -0.00036 | 1.7950 | 0.8375 | 302.3060 | 2.1434 | 0.03288 | * |
| 5 | sstest | 0.499667 | 1.2954 | 0.8212 | 301.8574 | 1.5775 | 0.11572 | |
| 6 | sstest | 0.999695 | 0.7958 | 0.8359 | 301.5688 | 0.9520 | 0.34184 | |

**Figure 1**

Predicted values of ethical leadership by subjects with varying levels of importance placed on the Care/Harm MFT dimension.

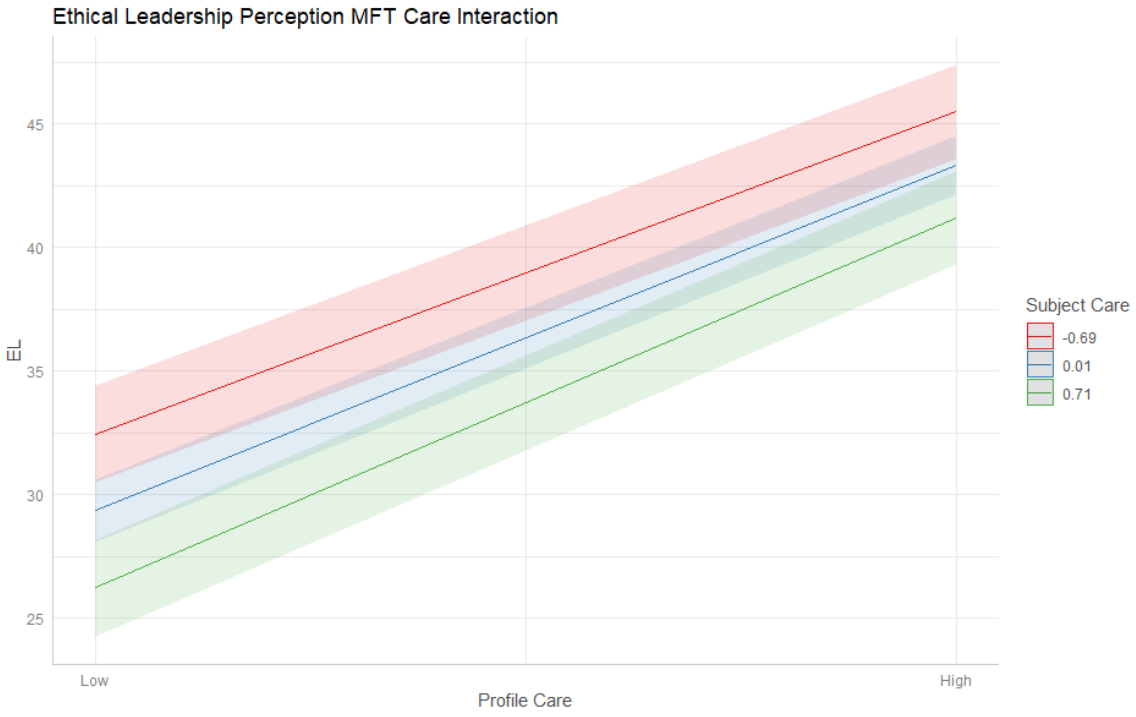


**Figure 2**

Predicted values of ethical leadership by subjects with varying levels of importance placed on the Fairness MFT dimension.

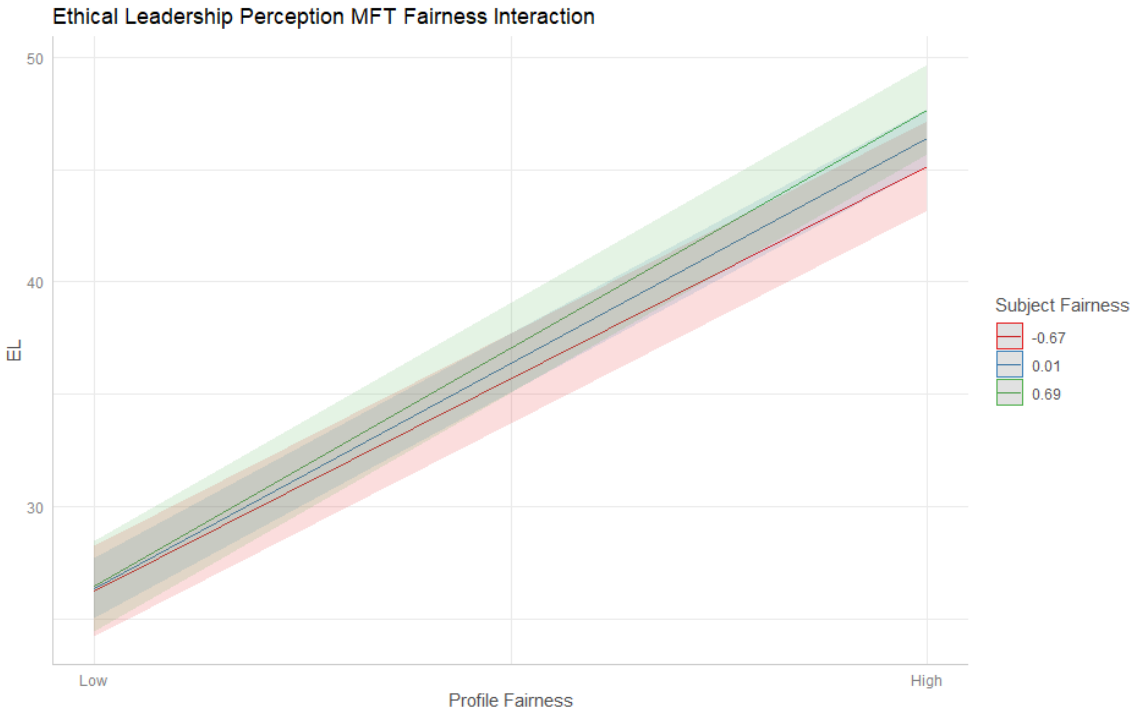


**Figure 3**

Predicted values of ethical leadership by subjects with varying levels of importance placed on the Loyalty MFT dimension.

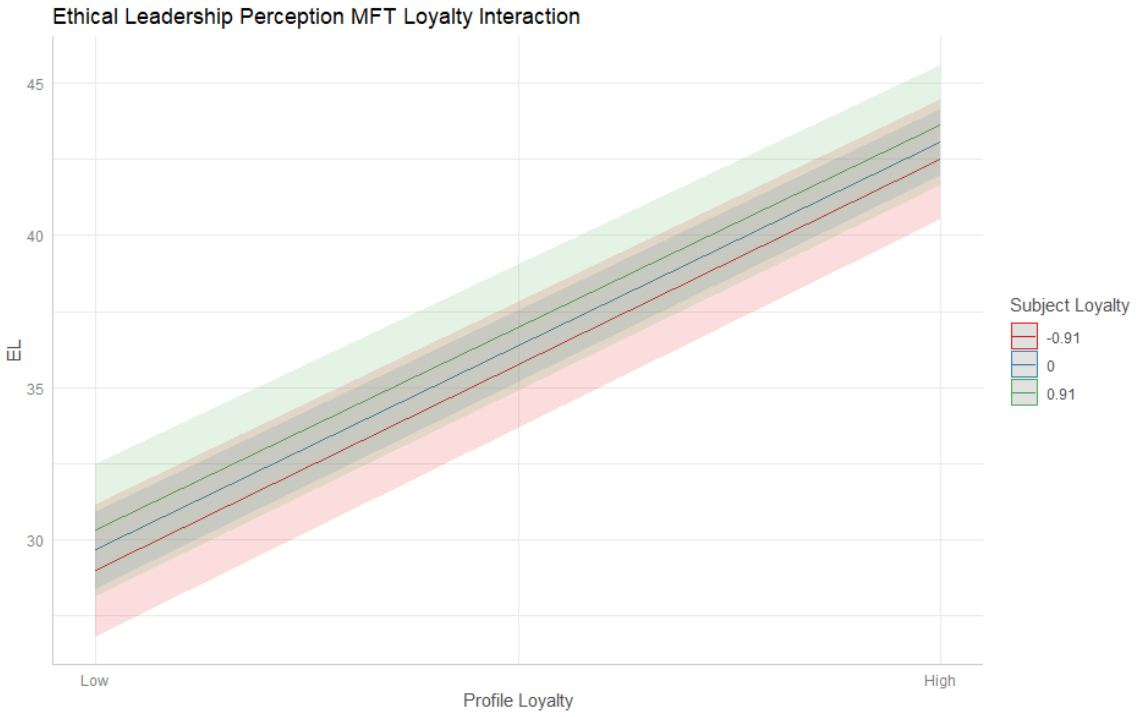


**Figure 4**

Predicted values of ethical leadership by subjects with varying levels of importance placed on the Authority MFT dimension.

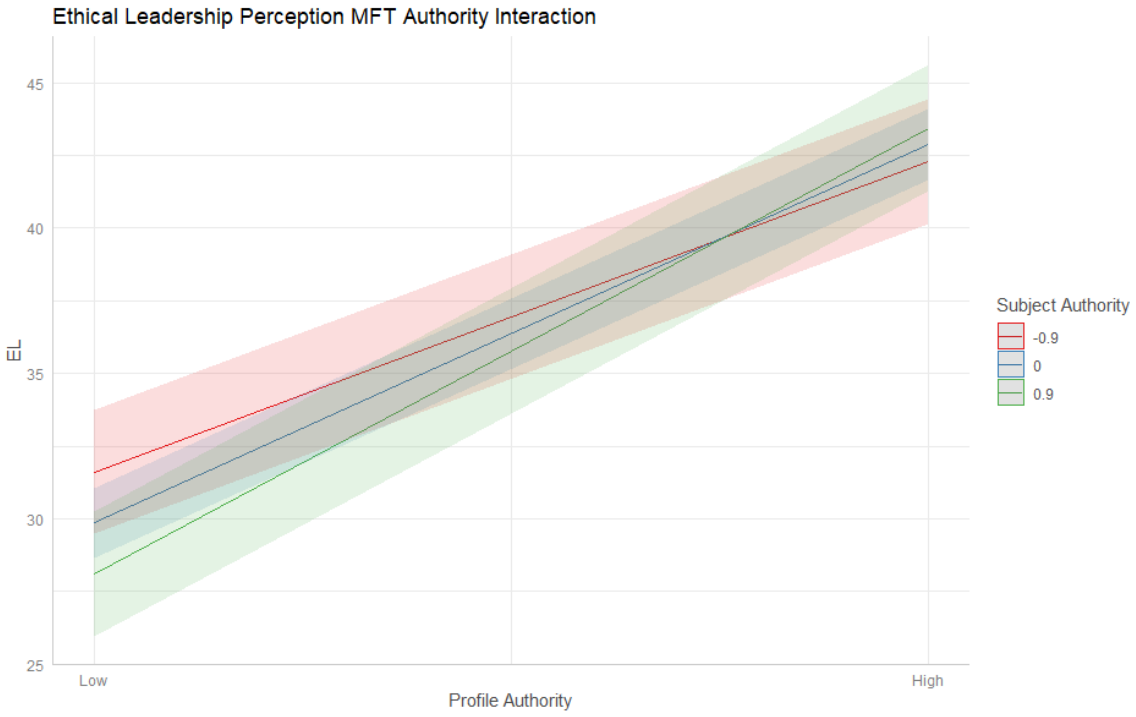


**Figure 5**

Predicted values of ethical leadership by subjects with varying levels of importance placed on the Purity MFT dimension.

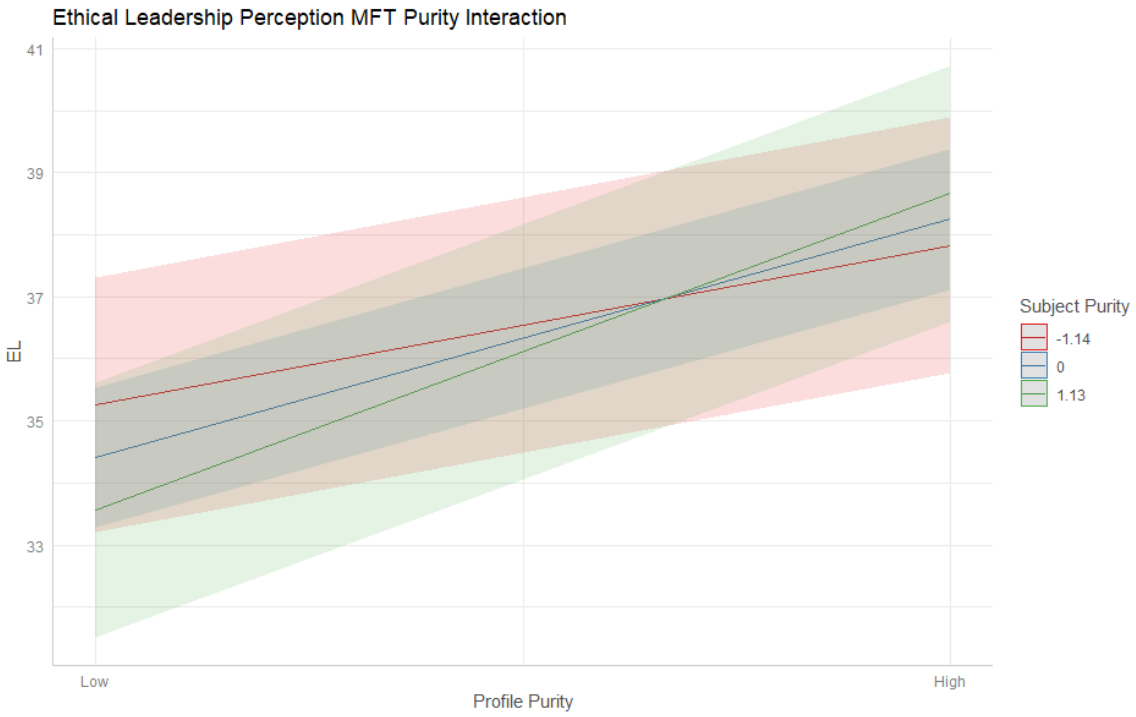


**Figure 6**

Ethical Leadership Evaluations at high and low levels of the care dimension for male v. female leaders (non-significant)

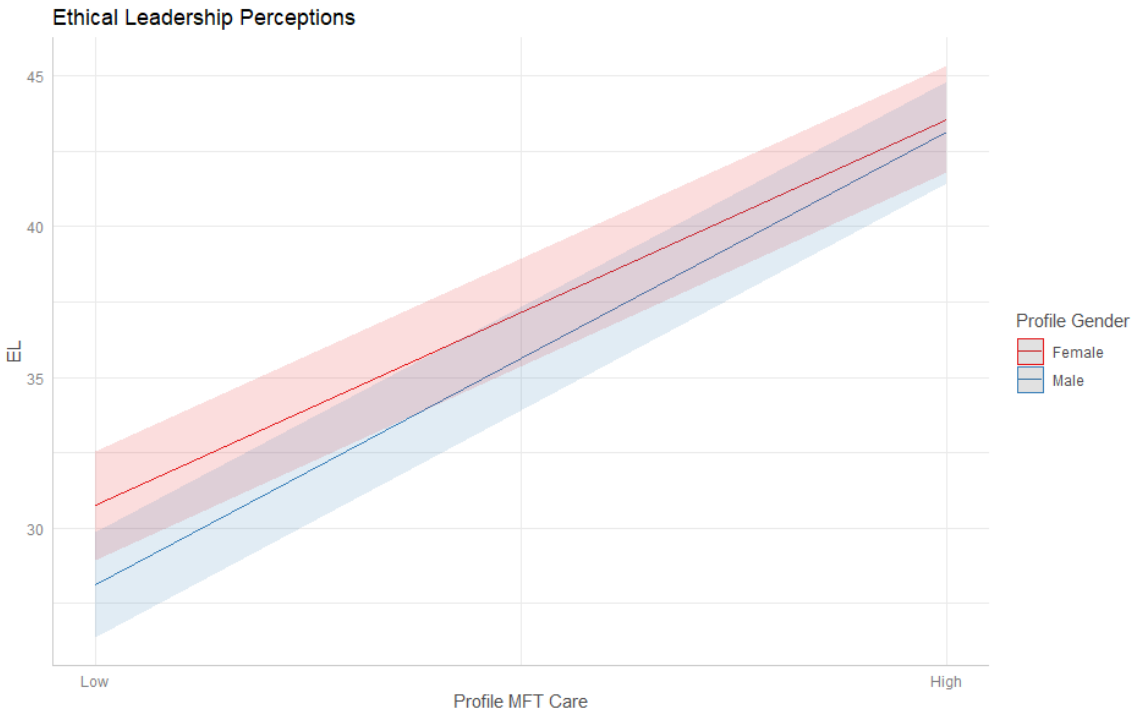


**Figure 7**

Ethical leadership perceptions at high and low levels of care dimension by follower political affiliation (1= very liberal, 6 = very conservative)

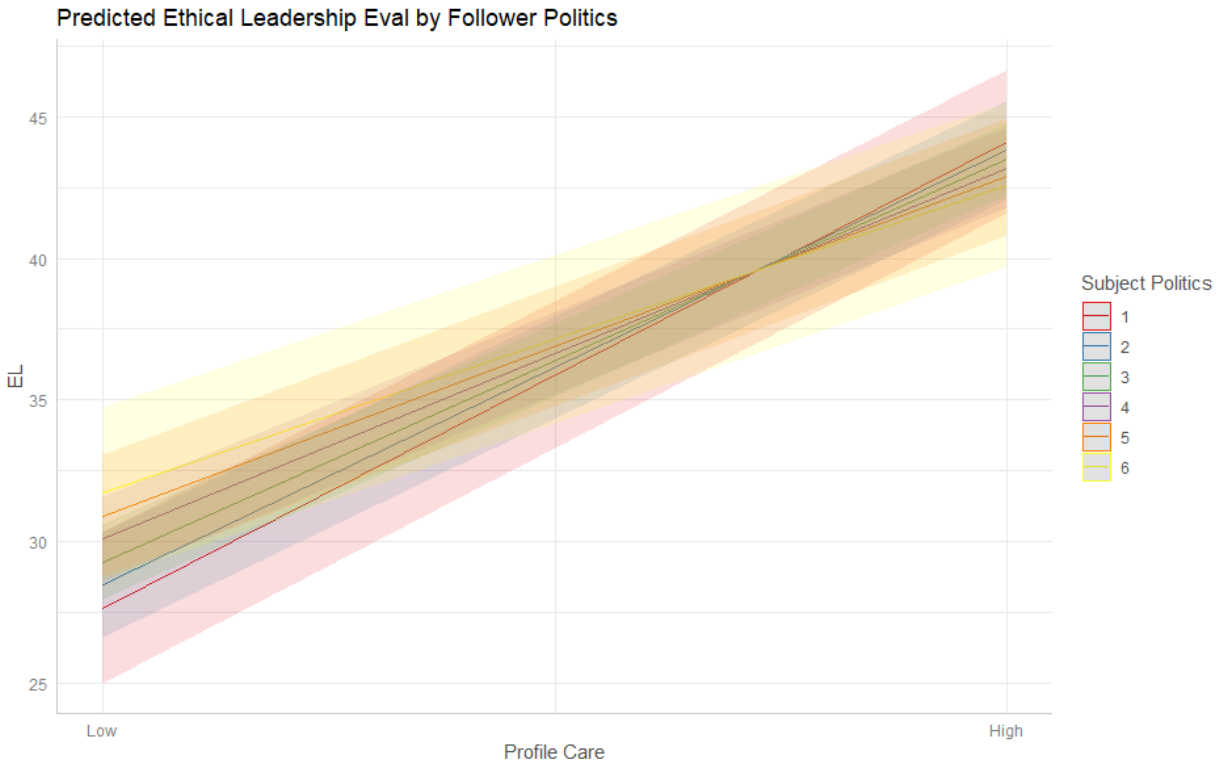


**Figure 8**

Ethical leadership perceptions at high and low levels of authority dimension by follower political affiliation (1= very liberal, 6 = very conservative)

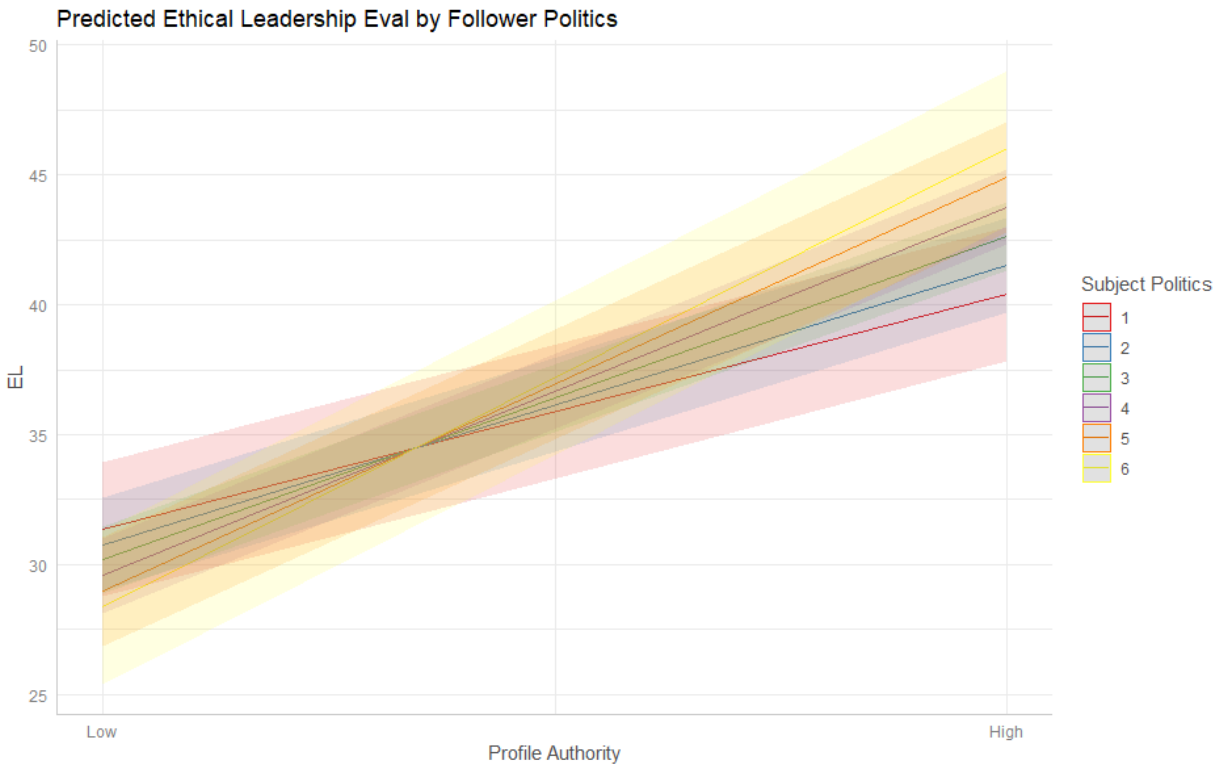


**Figure 9**

Ethical leadership perceptions at high and low levels of purity dimension by follower political affiliation (1= very liberal, 6 = very conservative)

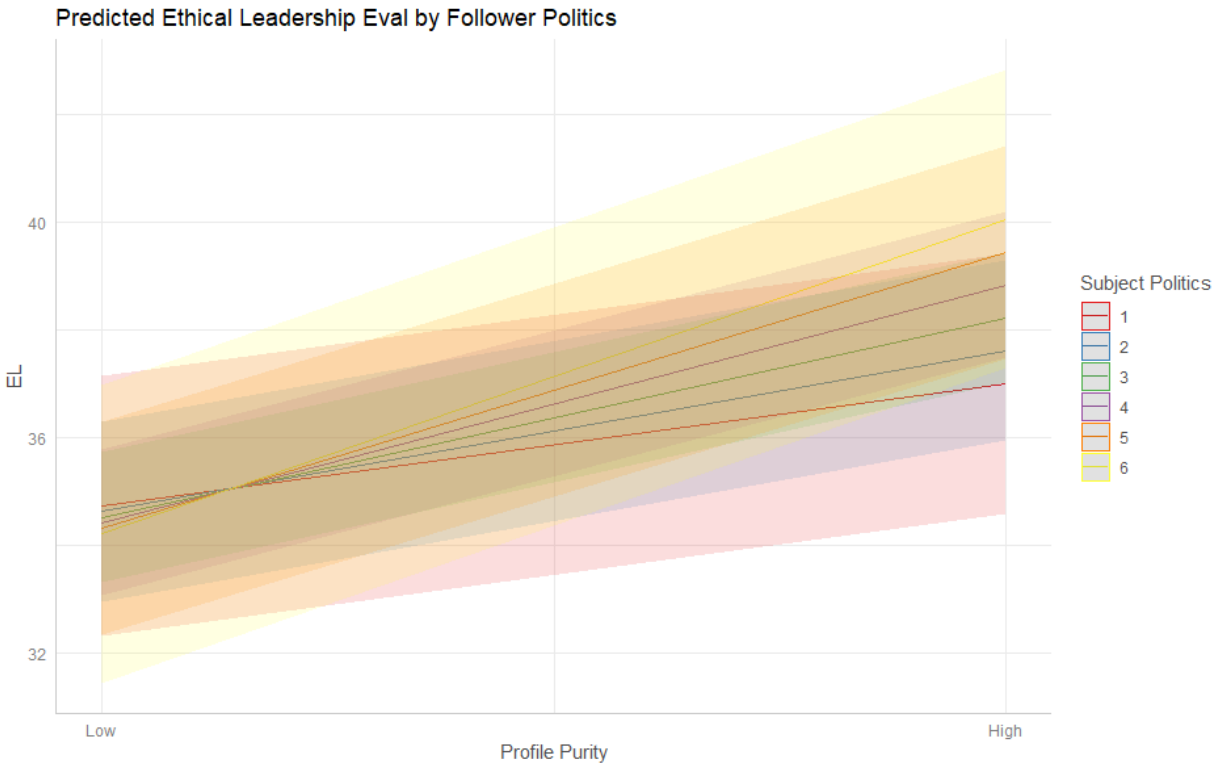


**Figure 10**

Ethical leadership perceptions at high and low levels of authority dimension by follower education level (1= some high school, 2= high school diploma or equivalent, 4= some college, 5= associate's, 6 = bachelor's, 7= master's, 8=doctorate)

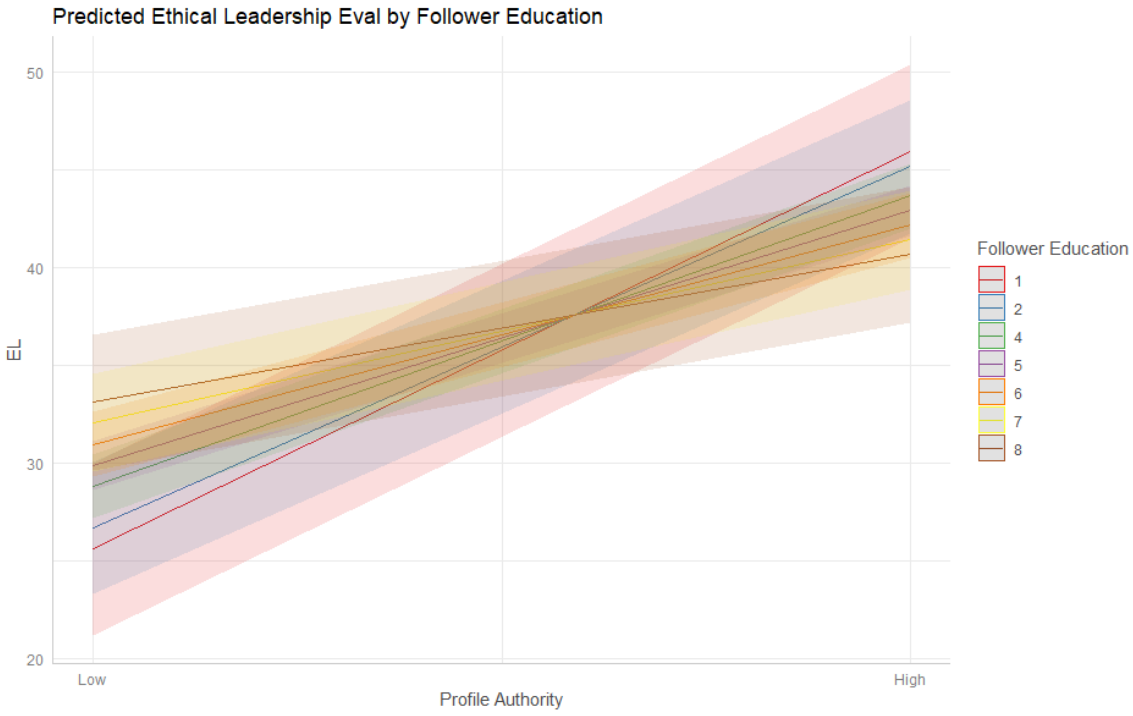


**Figure 11**

Ethical leadership perceptions at high and low levels of purity dimension by follower education level (1= some high school, 2= high school diploma or equivalent, 4= some college, 5= associate's, 6 = bachelor's, 7= master's, 8=doctorate)

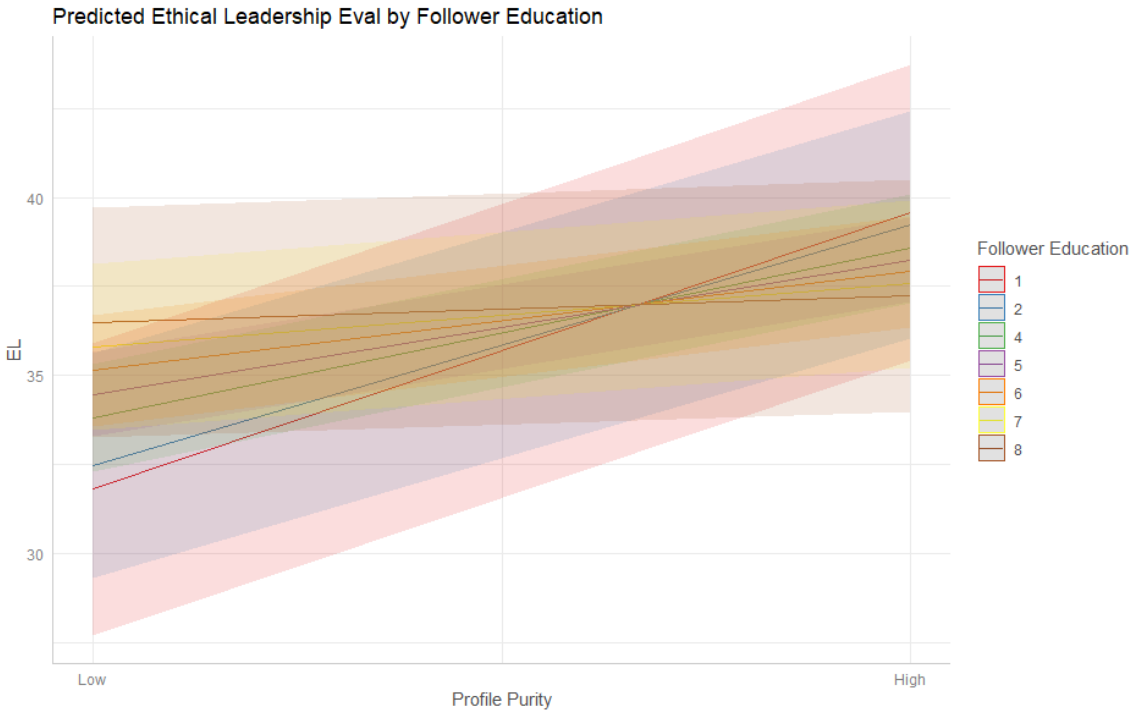


**Figure 12**

Ethical leadership perceptions at high and low levels of loyalty dimension by follower education level (1= some high school, 2= high school diploma or equivalent, 4= some college, 5= associate's, 6 = bachelor's, 7= master's, 8=doctorate)

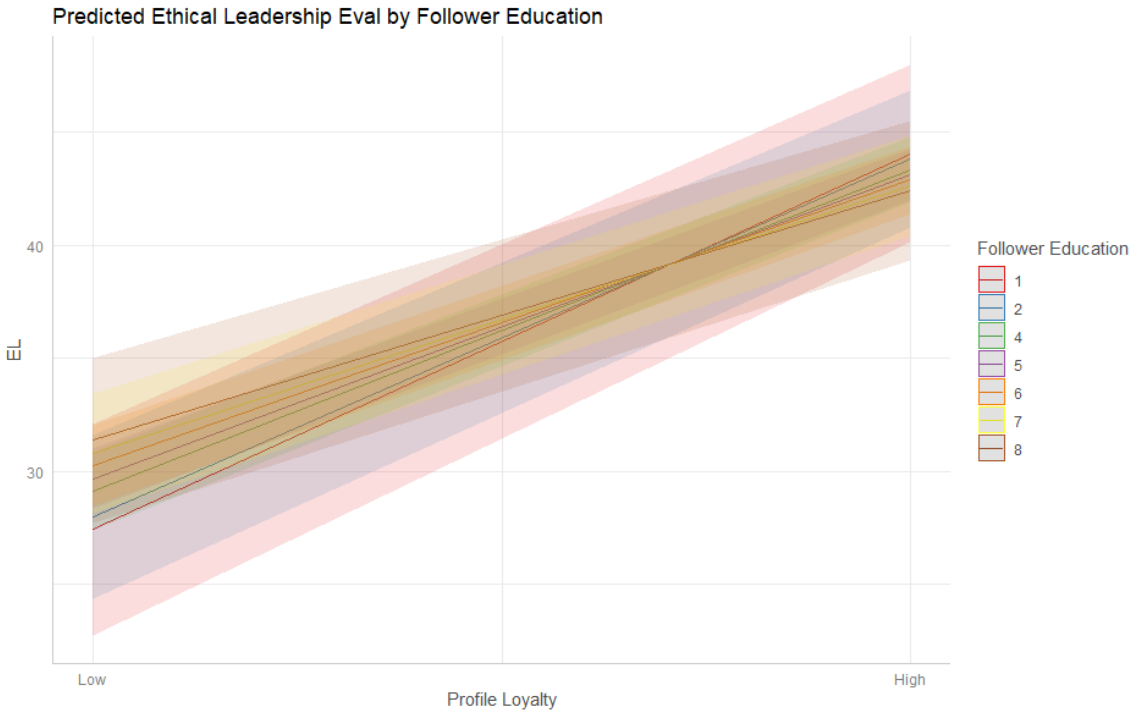


**Figure 13**

Ethical leadership perceptions at high and low levels of care dimension by follower education level (1= some high school, 2= high school diploma or equivalent, 4= some college, 5= associate's, 6 = bachelor's, 7= master's, 8=doctorate)

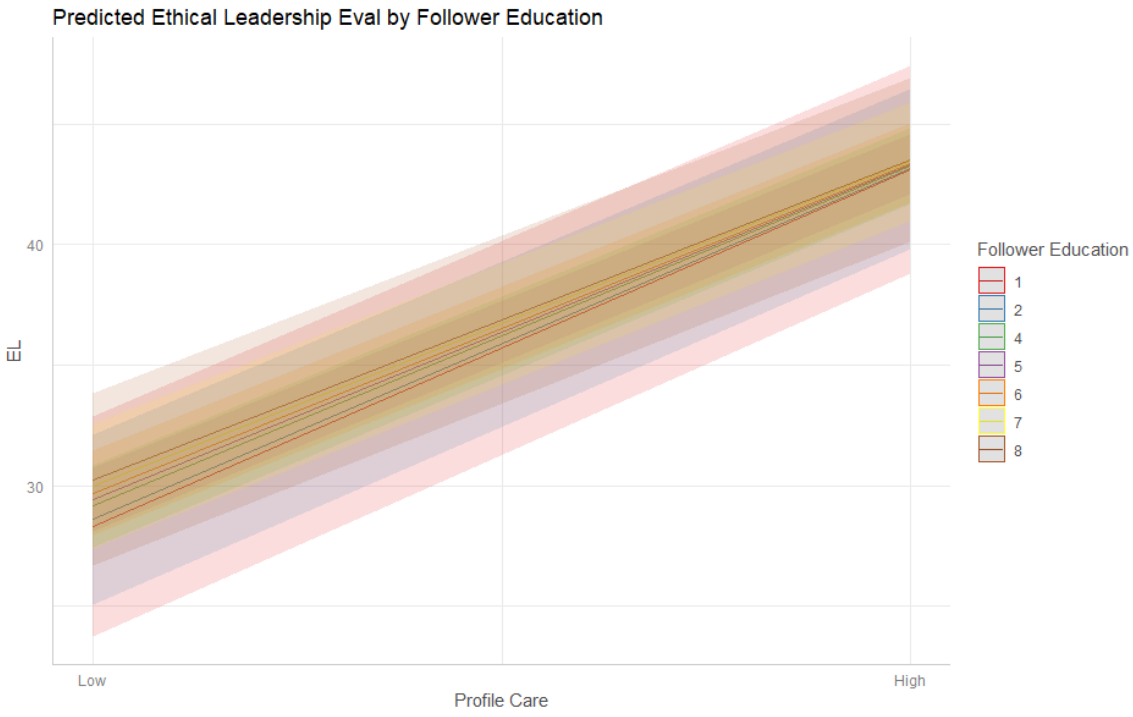
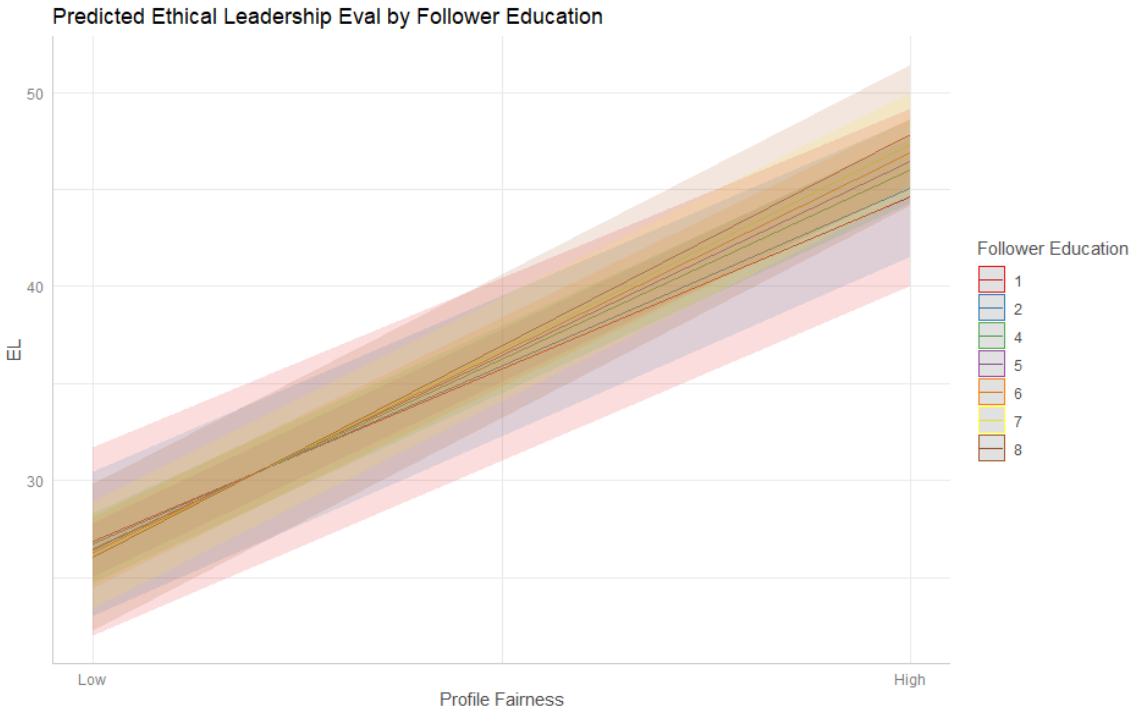


**Figure 14**

Ethical leadership perceptions at high and low levels of fairness dimension by follower education level (1= some high school, 2= high school diploma or equivalent, 4= some college, 5= associate's, 6 = bachelor's, 7= master's, 8=doctorate)



## Appendix A: Ethical Leadership Scale

1. Listens to what employees have to say
2. Disciplines employees who violate ethical standards
3. Conducts his/her personal life in an ethical manner
4. Has the best interests of employees in mind
5. Makes fair and balanced decisions
6. Can be trusted
7. Discusses business ethics or values with employees
8. Sets an example of how to do things the right way in terms of ethics
9. Defines success not just by results but also the way that they are obtained
10. When making decisions, asks “what is the right thing to do?”

All items rated on a 5-point Likert-type response format (1 = Strongly Disagree to 5 = Strongly Agree)

(Brown et al., 2005)

## Appendix B: Data Screening Processes

Total responses: 464

By source:
Friends/Family: 104
Subject Pool: 52
Fall 2023: 80
Spring 2024: 228

3 subjects had blank responses across the entire survey. These were dropped.

Exclusion A: 81 subjects completed less than 10% of survey per Qualtrics "Progress" field. Zero of these subjects rated a single profile, meaning they contributed no dependent variable data.

Exclusion B: 42 subjects failed one or both attention checks on the Moral Foundations questionnaire.

Exclusion C: 110 subjects did not finish per Qualtrics "Finished" column; only 27 of these did not fall into exclusions A or B. These 27 are exclusion C.

After excluding A, B, C…

6 Subjects are missing a response to a single item on the MI survey; the rest have no missing data on that scale.

A single subject (71) has an MFH score calculated with only 3 of 6 items. Four subjects (431, 216, 167, 92) were missing 1 item each out of the 6 that load onto MFH.

A single subject (71) has an MFF score calculated with only 3 of 6 items. Three subjects (421, 181, 310) were missing 1 item each out of the 6 that load onto MFF.

Only 1 subject (71) had an MFL score calculated with less than the full 6 items that load onto MFL. (3 of 6 items.)

A single subject (71) has an MFA score calculated with only 3 of 6 items. Four subjects (415, 458, 105, 328) were missing 1 item each out of the 6 that load onto MFA.

A single subject (71) has an MFP score calculated with only 3 of 6 items. Five subjects (212, 125, 166, 68, 156) were missing 1 item each out of the 6 that load onto MFA.

Exclusion D: Subject 71 should be excluded from analysis; they are missing half of the responses on each of the MFT dimensions.

After excluding A, B, C, & D:

Total responses: 310

By source:
Friends/Family: 49

Subject Pool: 36
Fall 2023: 63
Spring 2024: 162

Full summary statistics do not appear to have changed in any meaningful way after applying exclusions.

We then turned to the repeated leader profiles that were included as an attention check.

ICC was only 0.6 for profile attention checks (moderate).

Removed two more exclusion groups:
E: Answers to repeat profile P00000 50+ apart (6 respondents)
F: Answers to repeat profile P01101 50+ apart (13 respondents)

New ICCs after removing exclusions E and F were 0.73 (for profile 00000) and 0.68 (for profile 01101).

The final screened data removed exclusions A-F:

Total responses: 291

By source:
Friends/Family: 48
Subject Pool: 33
Fall 2023: 60
Spring 2024: 150

## Appendix C: Moral Foundations Questionnaire

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)

_____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.

*The Moral Foundations Questionnaire (full version, July 2008) by Jesse Graham, Jonathan Haidt, and Brian Nosek.*

*For more information about Moral Foundations Theory and scoring this form, see:*

*www.MoralFoundations.org*

## Appendix D: The Self-Importance of Moral Identity Scale

Listed below are some characteristics that might describe a person:

Caring, Compassionate, Fair, Friendly, Generous, Helpful, Hardworking, Honest, and Kind

The person with these characteristics could be you or it could be someone else. For a moment, visualize in your mind the kind of person who has these characteristics. Imagine how that person would think, feel, and act. When you have a clear image of what this person would be like, answer the following questions.

I 1. It would make me feel good to be a person who has these characteristics.

I 2. Being someone who has these characteristics is an important part of who I am.

S 3. I often wear clothes that identify me as having these characteristics.

I 4. I would be ashamed to be a person who had these characteristics. (R)

S 5. The types of things I do in my spare time (e.g., hobbies) clearly identify me as having these characteristics.

S 6. The kinds of books and magazines that I read identify me as having these characteristics.

I 7. Having these characteristics is not really important to me. (R)

S 8. The fact that I have these characteristics is communicated to others by my membership in certain organizations.

S 9. I am actively involved in activities that communicate to others that I have these characteristics.

I 10. I strongly desire to have these characteristics.

* Use 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) for all items.

*I Internalization; S Symbolization; R Reverse coded. (Aquino & Reed, 2002)*