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DESTRUCTIVE LEADERS, SUSCEPTIBLE FOLLOWERS, AND CONDUCIVE ENVIRONMENTS: IMPLICATIONS OF THE TOXIC TRIANGLE ON MORAL DISENGAGEMENT, ETHICAL SENSEMAKING AND ETHICAL DECISION-MAKING

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DESTRUCTIVE LEADERS, SUSCEPTIBLE FOLLOWERS, AND CONDUCIVE ENVIRONMENTS: IMPLICATIONS OF THE TOXIC TRIANGLE ON MORAL DISENGAGEMENT, ETHICAL SENSEMAKING AND ETHICAL DECISION-MAKING

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Abstract

Leadership research contributes to our understanding of organizational and societal successes and failures as well as subordinate behavior, however, much of this literature focuses on positive leaders. While the literature on destructive leadership is growing, the field often fails to address the compounding effects of a destructive leader, susceptible follower and conducive environment and lacks empirical evidence of this relationship. The current study provides novel, empirical evidence for the Toxic Triangle perspective of destructive leadership (Padilla, et al., 2007) on the critical outcomes of moral disengagement, ethical sensemaking and ethical decision-making through the evaluation of destructive leaders, self-uncertain followers and environmental accountability. Results indicate that some of the moral disengagement mechanisms, ethical sensemaking variables and ethical decision-making components are affected by a destructive leader individually but can be exacerbated when evaluated in the presence of a self-uncertain follower and organization accountability. The empirical evaluation of this three-way process contributes a novel framework to the literature and provides quantitative evidence for the Toxic Triangle model. Results and implications of these findings are discussed.
Keywords: Destructive leadership, susceptible followers, conducive environments, self-uncertainty, Toxic Triangle, moral disengagement, ethical sensemaking, ethical decision-making

Introduction

In organizations, and society in general, leadership is a crucial contributor to the success or failure of groups and individuals. When effective, leaders can have deeply rooted impacts on the prosperity of their followers and their firm. When ineffective, organizations can breakdown and followers could be left without sound guidance, clear norms, and an understanding of ethical principles and practices relevant for the organization. Largely, the focus of the leadership literature has been turned to the positive impacts of socialized charismatic or transformational leaders, but has often neglected the study of effective, destructive leaders. Yukl's (2010) definition of leadership implies that leadership may involve simple authority to monitor the completion of tasks but suggests that it can also take the form of complex processes of influence that directly impacts follower behavior. Given this possibility, developing a robust understanding of destructive leadership is critical in mitigating damaging organizational and individual level outcomes.

Attempting to delineate between good and bad leaders, House and Howell (1992), following McClelland's (1975) work, make such distinctions for charismatic leaders. Charismatic leadership separated itself from traditional studies of leaders in that it emphasized leader behavior, ability, appeal, and expectations as opposed to exchange relationships between leaders and followers (Graen & Cashman, 1975; Hollander, 1964; House, 1977; House & Howell, 1992). To develop a better understanding of the diversity of leaders that fall under this category, House and Howell (1992) defined a socialized charismatic leader as being based in egalitarian behavior, serving collective interests, not acting in a self-aggrandizing manner, and developing and empowering others through altruistic behavior, self-control, and a follower-oriented mindset. In contrast, personalized charismatic leaders were defined based on personal

dominance and authoritarian behavior, serving self-interests, and exploiting others through narcissistic, impetuous, and impulsively aggressive behavior (House & Howell, 1992). While this work took an important step in determining the characteristics of destructive and non-destructive leaders, the focus of the literature remained on leader behavior and actions that result in follower and/or organizational outcomes.

Following House and Howell's (1992) work, the destructive leadership literature began to develop, and research led to the generation of new leader concepts such as abusive supervision, and toxic leadership which continued to place its greatest emphasis on leader behaviors and traits (Tepper, 2000; 2007; Tepper, et al., 2007; Lipman-Blumen, 2005; 2006). While understanding the nature of the leader is critical to the process, early literature failed to address the compounding effects of followers and environments (Thoroughgood, et al., 2018; Einersen, et al., 2007; Krasikova, et al., 2013). In response to this diverted focus, a critique of the destructive leadership literature was conducted, and a comprehensive definition was established which states:

> "Destructive leadership is a complex process of influence between flawed, toxic, or ineffective leaders, susceptible followers, and conducive environments, which unfolds over time and, on balance, culminates in destructive group or organizational outcomes that compromise the quality of life for internal and external constituents,"
> (Thoroughgood, et al., 2018, p.633).

This cohesive definition follows the "Toxic Triangle" model which holds that destructive leadership should be evaluated as a process of influence involving more than just the leader, where negative consequences are a direct result of the confluence between leaders, followers,

and environments (Padilla, et al., 2007). This influence can, in turn, have profound effects on the behavior of followers, particularly during times of ethical ambiguity.

Despite the threat of negative consequences that may arise due to the Toxic Triangle theory of destructive leadership, a recent review and meta-analysis of the literature noted that empirical research has not been conducted that attempts to develop an understanding of how the defining features of susceptible followers or conducive environments contribute to the destructive leadership process (Mackey, et al., 2021). In addition to the need for empirical evidence of this interaction, the meta-analysis also revealed that ethical decision-making outcomes are lacking analysis in the context of destructive leadership. While some follower behaviors have been evaluated such as counterproductive work behaviors (Zhang, et al., 2019), aggression (Hoobler & Brass, 2006), and creativity (Han, et al., 2017; Liu, et al., 2012), ethical decision-making has been overlooked, yet has significant consequences for organizations and individuals alike. Given the impact of ethics in organizations and the influence of leaders in ethically ambiguous situations, the examination of moral disengagement, ethical sensemaking and ethical decision-making is important for organizations to further understand the consequences of the destructive leader process. The primary contribution of this study lies in the empirical evaluation of destructive leadership as a process involving the leader, followers, and the environment. Specifically, this study evaluates the effects of follower self-uncertainty and organizational checks and balances when paired with a destructive leader, aiming to address a large gap in the literature by providing a quantitative evaluation of this theoretical relationship. Additionally, this study contributes novel information about the effects of this relationship on moral disengagement, ethical sensemaking and ethical decision-making outcomes; an area that is in need of further development.

Moral Disengagement, Ethical Sensemaking and Ethical Decision-Making

Moral Disengagement

Moral disengagement, as described by Bandura (1986;1999), is a cognitive mechanism by which one deactivates self-regulatory sanctions and can be used to explain why people may be able to engage in uncharacteristic, unethical behavior without apparent guilt or self-censure (Detert, et al., 2008). Most often, individuals act ethically out of fear of societal and/or organizational punishment and the perceived rewards of ethical behavior, however moral disengagement allows for unethical behavior to be internally justified by the individual in situations where there is ethical ambiguity, manipulation and/or uncertainty (Detert, et al., 2008; Johnson, et al., 2014). To better understand moral disengagement, it was proposed that there are three distinct groups, consisting of individual cognitive mechanisms. The groups categorize this behavior by stating that disengagement occurs by a) cognitively reframing unethical behavior to appear more ethical, b) diffusing direct blame for unethical behavior and/or distorting harmful outcomes, and/or c) reducing identification with targets of unethical actions. Further, these groups consist of the cognitive mechanisms of moral justification, euphemistic labeling, advantageous comparison, displacement/diffusion of responsibility, disregard/distortion of consequences, dehumanization of victims, and attribution of blame (Bandura, 1986;1999).

Moral disengagement has been linked to several negative outcomes due to the cognitive resources it requires and the allowance it provides to disassociate from internal standards during the processing of decisions (Baumeister, et al., 1998; Bandura, 1986,1999). For example, research has found that moral disengagement decreases prosocial behavior and increases antisocial behavior in children, has been linked to co-worker undermining in adults, and can facilitate corruption in organizations (Bandura, et al., 1996; 2000; Duffy, et al., 2012). Further

research supports the claim that moral disengagement provides a pathway to unethical decision-making in a mediational model with individual differences as antecedents of the relationship (Detert, et al., 2008).

Ethical Sensemaking

Sensemaking is a method of analyzing and "making sense" of multiple outlets of information and is defined as a type of complex cognition that is often engaged during ambiguous, high-stakes tasks (Drazin, Glynn, & Kazanjian, 1999; Weick, 1988; 1995; etc.) These ill-defined, high-stakes events allow for a variety of mental models to be applied (Mumford & Gustafson, 1988) and the mental model selected from the analysis of information, provides a framework for further information gathering, and appraisal of potential courses of action (Hmelo-Silver & Pfeffer, 2004; Hogarth & Makridakis, 1981).This situational appraisal then serves as the basis for decision-making by developing an understanding of the origins of the crisis, critical issues and constraints involved, and the likely outcomes of alternative courses of action (Mumford, et al., 2008). To better understand the sensemaking process, thirteen variables have been discussed which make up three components; that of causal (Brock, et al., 2008; Johnson, et al., 2012), constraint (Johnson, et al., 2014) and forecast analysis (Beeler, et al., 2010; Harkrider, et al., 2012; etc.). These components consist of the cognitive steps of problem recognition, criticality and number of causes identified, breadth, criticality and number of constraints identified, short-term and long-term forecasting, positivity and negativity of forecasts and overall quality of forecasts made relative to the problem solution.

Ethical Decision-Making

Ethical decision-making, in relation to individual behavior, is suspected to arise from the decisions that are made in the context of a complex, ethical dilemma (Mumford, et al., 2006).

This process is often subject to judgment according to accepted norms of morality and is concerned with ethical behavior within larger social prescriptions (Treviño, et al., 2006). Ethical decision-making is defined to include a regard for the welfare of others, an awareness of social obligations, and recognizing personal responsibility (Stenmark & Mumford, 2011; Darke & Chaiken, 2005; Schweitzer, et al., 2005; Mumford, et al., 2008). Previous research has suggested several individual differences and organizational influences that may affect ethical decision-making such as moral development, training in ethics, and, most important to the current study, leader influence (Treviño & Youngblood, 1990; Mumford, et al., 2008).

Leadership Effects on Moral Disengagement, Ethical Sensemaking, and Ethical Decision-Making

Followers are often drawn to and depend on their leaders; thus, it is crucial to develop an understanding of the influence of leaders on subordinate ethical decision-making. Based in both social learning and social exchange theories, research suggests that charismatic leaders are thought to influence followers through the sharing of strong world views and goals; an influence that is magnified during times of ethical crisis (Bligh, et al., 2004; Padilla, et al., 2007). Identification with the wrong leader during these periods of ethical ambiguity may lead to the adoption and repetition of leader modeled behavior by followers (Hogg, 2007; Treviño & Brown, 2005). Historical events and previous research suggest that leaders may impact the moral disengagement of followers through the reduction of negative outcomes and the reinforcement of reprehensible behavior that is made to seem inconsequential (Andurs, 1969; Milgram, 1974; Beu & Buckley, 2004). Similarly, within an ethical dilemma, leaders and followers are thought to independently engage in sensemaking, however leaders have the ability to influence the sensemaking processes of their followers as well (Mumford, 2006; Mumford & Strange, 2002;

Thiel, et al., 2012). Finally, research has shown that leaders who engage in unethical conduct induce an environment that supports subordinate imitation of such deviance (Kemper, 1966; Bass, et al., 1987), and it has been suggested that personalized, charismatic leaders can utilize their political savviness to convince subordinates to commit acts of obedience through the use of vision and strategic framing (Beu & Buckley, 2004). Given the power often afforded to leaders in times of ambiguity or crisis, regulation of information and control of outcomes through manipulated problem framing and the use of moral disengagement can occur (Johnson, et al., 2014). The influence of follower sensemaking models and provided justification for action may cue susceptible followers to take unethical direction from their leader that result in negative organizational and individual outcomes. Considering past research, the following relationship between moral disengagement, ethical sensemaking and ethical decision-making is hypothesized:

H.1a: Higher levels of moral disengagement will be associated with and predict lower levels of ethical decision-making.

H.1b: Lower levels of ethical sensemaking will be associated with and predict less ethical decision-making.

Destructive Leadership

Initially, destructive leadership was thought to be associated with bad intentions and inherently destructive behaviors (Bass & Steidlmeir, 1999). While this can be the case, later research noted that negative leaders fall on a continuum from the ineffective or incompetent to the unethical and wicked and while it is rather simple to establish unethical and evil as inherently bad, other aspects of negative leaders are often more difficult to label (Kellerman, 2004). Even more challenging, is the research that shows effective and potentially short-term positive outcomes resulting from a group with a destructive leader (Hogan & Hogan, 2001). As such,

destructive leadership definitions have varied over the years as the perspective on what a destructive leader looks like has shifted and been re-evaluated.

The Toxic Triangle

In response to the fluid view of destructive leaders, the Toxic Triangle model was established. Consistent with a systems perspective of leadership, the Toxic Triangle implies that leadership stems from the interplay of a leader's motivation and ability, subordinate desire or need for direction, and events calling for leadership (Padilla, et al., 2007). Further, this model posits that destructive leadership is a) seldom absolutely destructive, b) a process involving characteristics consistent with personalized charismatic leaders, c) has a selfish orientation, d) effects the quality of life for constituents and detracts from organizational goals, and e) is the product of the destructive leader, susceptible followers, and conducive environments, (Padilla, et al., 2007).

Based on evaluation of the destructive leadership literature at the time, Padilla suggested five leader factors that were deemed critical to destructive leaders: charisma, personalized use of power, narcissism, negative life themes, and an ideology of hate (Padilla, et al, 2007; Gessner, et al., 1995; Mumford, et al., 1993; McClelland, 1970; 1975; Conger, 1990; O'Connor, et al., 1995; Strange & Mumford, 2002). It was further proposed that any single element would be insufficient for a destructive person to obtain an authority role, but rather some combination of these characteristics would be required for a successful campaign. These factors align closely with the previously mentioned personalized, charismatic leader as defined by House and Howell (1992) and is the basis for the destructive leader descriptions in the current study. Destructive leaders set a poor example to followers with regard to considering the welfare of others within and outside of the organization. They justify unethical choices and actions often putting their

own goals and agenda ahead of ethical principles or achieving more socialized just outcomes. Given their manipulative use of power and desire to achieve personal goals, they may directly influence follower's views of ethical situations and their ability or willingness to think and behave ethically. Alternatively, socialized leaders often serve as role models for ethical behavior, setting the standard and expectations of their followers during ethical dilemmas. Given these observations, the following main effects of destructive leaders were hypothesized:

H.2: Followers of a destructive leader will a) display higher levels of moral disengagement, b) engage in less ethical sensemaking, and c) make less ethical decisions when faced with an ethical dilemma than followers of a socialized leader.

Susceptible Followers

In the development of the Toxic Triangle, researchers turned their focus to the importance of followers and posited potential characteristics of those interested in a destructive leader (Boccialetti, 1995; Kellerman, 2004; Lipman-Blumen, 2005). Through the evaluation of follower research, it is further suggested that there exist two types of followers; colluders and conformers (Higgins, 1997; Kellerman, 2004; Weierter, 1997). Conformers are those followers who may comply with a destructive leader out of fear and are characterized by low core self-evaluations and unmet needs whereas colluders are those followers who may actively engage in the actions and beliefs of a destructive leader and are characterized by similar worldviews and bad values (Padilla, et al., 2007). These follower types are further expanded in what is known as the "susceptible circle," which separates colluders and conformers into five types of susceptible followers: lost souls, authoritarians, bystanders, acolytes, and opportunists (Thoroughgood, et al., 2011). Self-uncertainty is a follower attribute present for several kinds of susceptible followers. This construct is certainly associated with lost souls who are plagued by an ill-defined and

malleable self-concept, but also could provide an underlying reason as to why followers adopt authoritarian orientations towards power or why they are willing to be a bystander or true acolyte (Thoroughgood, et al., 2011). Each of these roles provides a script, or at least more certainty, for followers coming from the leaders they operate under.

Self-Uncertainty

Social identity, as seen in early social psychology work, is defined as "… the individual's knowledge that they belong to certain social groups together with some emotional and value significance to them of this group membership," (Tajfel, 1972, p. 292). This construct has been historically studied in the context of groups and as a basis for intergroup conflict, biases and intragroup relations (Tajfel, 1974; Tajfel & Turner, 1979), however early research failed to address the proper motivational role of uncertainty in one's life. In response to this muddied understanding of uncertainty as a motivator, uncertainty-identity theory was developed, which states that seeking to resolve this self-referential uncertainty rests on the motivational tenet that feeling uncertain about one's perceptions, attitudes, values, feelings, and belonginess results in discomfort (Hogg, 2000; Hogg & Abrams, 1993). Further development of this research proposed that resolution of this self-uncertainty is found through information gathering, group membership and the adoption of strong, shared values (Hogg, 2000; 2007).

At best, self-uncertainty at minimal levels can be viewed as a challenge to be approached with excitement. Where the danger lies in this source of motivation is when moderate or extreme levels result in perceptions of threat and attempts to resolve this aversive state occur (Hogg, et al., 2021; Grant & Hogg, 2012; Blascovich, 2003; Lopes, 1987). It is during these instances that the resolution of uncertainty becomes more important to the individual than the source of that resolution; where one need, in this case self-uncertainty, has the power to override all other

needs and previously held values no longer provide a valid, interpretive framework (Hogg, et al., 2021; Kruglanski, et al., 2021; Gebert, et al., 2016). Prime examples of this theory can be seen in cult membership or followers of radical leaders, in which convictions are heightened, strong worldviews are provided, and a sense of belongingness fuels unlikely behavior (Hogg, Meehan, et al., 2010; Mergen, et al., 2020). While the literature has developed an understanding of desperate levels of self-uncertainty, less research has been conducted on modest levels of self-uncertainty and its impact on behavior.

Self-Uncertainty and Leadership

Early evaluations of followers theorized that needy conformers would seek self-affirmation of their peers, and in particular their leaders, using external self-concept motivation (Thoroughgood, et al., 2012; Barbuto & Scholl, 1998; Katz & Kahn, 1978). While this may be the case for some follower roles, the literature on self-uncertainty would argue that followers in this state will be socially motivated to seek group and leader approval for resolution of their uncertainty as opposed to an enhancement of their self-esteem (Hogg & Svensson, 2006; Hogg, 2000;2007). Since this resolution often comes through the fostering of a sense of belongingness and shared worldviews, self-uncertain followers are primed for influence by a leader. Prior research has drawn the connection to individuals facing self-uncertainty and destructive leader types, such that self-uncertainty increased identification with extremist groups and gravitation towards leaders who are high in authoritarian characteristics and dark triad traits such as narcissism and psychopathy. (Hogg, Meehan, et al., 2010; Rast & Hogg, 2013; Guillén, et al., 2020; Mergen, et al., 2020). These attributes and their behavioral correlates present attitudes and behaviors that appear highly certain, directive, decisive, and autocratic (Hogg, 2018). Additional research regarding unethical leaders has shown that these types of charismatic authority figures

have the ability to trigger follower dependence on the leader (Bass, 1998; Howell, 1988; Eisenbeiss, 2011). Those followers experiencing uncertainty are in turn inclined to obey unethical orders in pursuit of leader approval and increased status (Bass, 1985). Socialized leaders tend to be more democratic and individualized in their approach to followers and therefore, may not assist followers in achieving uncertainty reduction as effectively. The following interaction between destructive leaders and self-uncertain followers was proposed as a result of the motivation for group belongingness and strong worldviews:

H.3: Followers of a destructive leader, who are high in self-uncertainty will a) display higher levels of moral disengagement, b) engage in less ethical sensemaking, and c) make less ethical decisions when faced with an ethical dilemma than followers of a socialized leader or who are low in self-uncertainty.

Conducive Environments

The last corner of the Toxic Triangle posits that there must exist an environmental context that would allow for a negative leader to flourish. Through a review of the literature, it has been suggested that some of the important factors conducive to destructive leadership may be instability, perceived threat, cultural values, and a lack of accountability and institutionalization (Padilla, et al., 2007). Effective institutions with system stability have the power to trump attempts to overcome the impeding influence of destructive leaders and their followers. Without an avenue that would allow them to thrive, destructive leaders may be no more than a rogue, ineffective gathering, however in a conducive environment, destructive leaders and their followers have the potential to obtain and maintain control (Gandossy & Sonnenfeld, 2004).

Accountability: Checks and Balances

One of the primary examples of the necessity of checks and balances can be found in the *Federalist Papers*, in which it is suggested that checks and balances are necessary to avoid the abuses of absolute power and emphasizes the threat of unilateral control. If a system lacks a cooperative model of control, it leaves room for individuals and/or groups to obtain unchecked power. Once in an influential role, destructive leaders will undermine any existing institutions or threats to their power, allowing for unaccountable action (Padilla, et al., 2007). Previous research regarding checks and balances has shown that a lack of audit committees and unbiased, effective board oversight, as well as infrequent compliance reviews opens the door to counterproductive work behavior such as fraud (Beasley, et al., 2000). Given the freedoms afforded to destructive leaders by conducive environments, the following interaction between destructive leaders and organizational accountability was hypothesized:

H.4: Followers of a destructive leader, whose organization lacks a system of checks and balances will a) display higher levels of moral disengagement, b) engage in less ethical sensemaking, and c) make less ethical decisions when faced with an ethical dilemma than followers of a socialized leader or whose organization employs a system of checks and balances.

Finally, combining each aspect of the Toxic Triangle, the following three-way interaction is hypothesized:

H.5: Followers of a destructive leader, who are high in self-uncertainty and whose organization lacks a system of checks and balances will a) display the highest levels of moral disengagement, b) engage in the least ethical sensemaking, and c) will make the least ethical decisions in the face of an ethical dilemma compared to followers of a socialized leader, who are low in self-uncertainty, or whose organization employs a system of checks and balances.

Method

Design & Sample

The current study employed a 2 (leader type) by 2 (level of self-uncertainty) by 2 (accountability) between-subjects, fully crossed design. Leader type included destructive and socialized leaders, level of self-uncertainty included high and low, and accountability included presence and lack of organizational checks and balances. Participants were randomly assigned to one of eight possible conditions reflecting the various manipulations. Participants were provided a low-fidelity simulation, scores on survey questions were calculated, and responses to short answer open-ended questions following the scenario were rated by trained coders for moral disengagement, ethical sensemaking and ethicality of decision-making.

265 undergraduate students at a large Midwest university were the sample in the current study as fulfillment of undergraduate psychology course requirements. Observations were removed from the sample under pre-determined criteria for removal which included duplicate responses from any single participant, participants who failed multiple attention checks, participants who failed one attention check and displayed poor task performance, or participants who systematically responded to survey questions. After cleaning the data, the condition cells needed to be balanced through random selection of participants and thus, the sample size used for analysis was 245. The average age of participants was 19.07 (SD = 2.39), 70.6% of the sample was female, and 59.2% were Caucasian. The course from which the participant pool was obtained is a general education requirement and therefore the participants represented a diverse number of majors.

Procedure

Participants signed up for this study through the University of Oklahoma's SONA System and were automatically sent a link to complete the study online via the Qualtrics survey

website. Once logged into the website, participants were provided an online informed consent form. Consenting participants were then provided general instructions for the study, the first half of a battery of covariate measures including verbal reasoning and self-esteem, and the self-uncertainty manipulation (Appendix D). Next, participants were provided an organizational description in which they were embedded in a marketing research analyst role in a large marketing and advertising firm (Appendix C). This low-fidelity simulation has been utilized previously and was shown to successfully engage ethical decision making in participants through the use of a first-person scenario which is well documented as a successful approach to embedding participants in complex, cognitive tasks (Sanders, 2020; Motowidlo, Dunnette, & Carter, 1990; Sanders, 2020).

First, participants received a single page of information about the marketing firm, in which the manipulation of presence or lack of organizational checks and balances took place. An organizational hierarchy followed this description to provide a visual representation of the accountability manipulation to the viewer (Appendix E). Next, participants received a single page of information regarding their specific role in the organization, their salary and expenses, their closest co-worker Chelsea, and their boss and director of product marketing Sam Andrews. At this time, the leader type manipulation took place, describing either destructive or socialized attributes that Sam portrayed (Appendix F). Following this description, the ethical scenario was delivered, dealing with issues regarding marketing for a potentially unethical client and a promotion incentive (Appendix G). Immediately after the presentation of the ethical scenario, participants were asked to answer a series of short-answer questions about their marketing plan and decision process (Appendix H). After responding to the ethical decision-making task, participants were asked a series of survey-based manipulation checks, covariates and

demographic questions, including leader perception (Appendix I), the accountability manipulation check (Appendix J) and participant identification with their leader. Finally, participants were directed to a page that debriefed them on the nature of the study and provided resources to help participants cope with self-uncertainty.

Scenarios

The current study used a previously created scenario, placing participants in a marketing research analyst role at a large marketing and advertising firm called Innovative Marketing Inc. (Sanders, 2020). In the scenario, the participant's immediate supervisor, Sam Andrews, who was manipulated to portray either a destructive or socialized leader, requested that the participant complete a task that held ethical ambiguity. Within the marketing scenario, the participant was asked to conduct a mock focus group, for which an executive summary was provided, regarding a new marketing campaign for a client called *COFFEETECH* who was trying out a new line of caffeinated fizzy drinks and lollipops. Participants were then asked to design and approve an advertising campaign for *COFFEETECH* despite implications that the company may not have been adhering to certain labor, environmental, and quality standards, a hypothetical situation with a potential promotion on the line. Scenarios were standardized with the exception of the leader type and accountability conditions.

Manipulations

Leader Type

Two distinct leader types, destructive and socialized, were manipulated in the Innovative Marketing Inc. scenario through described attributes noticed by the participant and their co-workers and a mock e-mail chain. The destructive leader characteristics followed personalized, charismatic leader attributes (House & Howell, 1992) and the destructive leader definition by

Thoroughgood, et al.'s (2018) critique of destructive leadership. The socialized leader characteristics followed the work of House and Howell (1992), which provides distinct attributes of the two types of charismatic leaders. For example, the destructive leader was described as less friendly to others, playing favoritism, and engaging in assertive discussions with subordinates, while the socialized leader was described as friendly, working through the chain of command, and having a calm and consistent demeanor. Both leaders, however, were portrayed as being effective, with the inclusion of a statement that described an increase in sales at Innovative Marketing Inc. since the leader had started. Manipulation check questions administered after the scenario were completed and assessed participant perceptions of the leader and their identification with the leader (Appendix I).

Self-Uncertainty

Self-uncertainty was manipulated in participants to be either high or low through a method determined through pilot testing. In previous research, self-uncertainty had been manipulated using the Thematic Apperception Test versus a Non-Ambiguous Images Test (Grieve & Hogg, 1999). Through this method, participants were asked to respond to 5 images from the Thematic Apperception Test or the Non-Ambiguous Images Test and were then asked how certain they felt about their answers. Following this manipulation, analyses showed that those who were issued the Thematic Apperception Test (high self-uncertainty condition) showed more in-group bias during a minimal group allocation task which indicates that they were resolving their self-uncertainty through group identification. Attempting to manipulate self-uncertainty in an alternative manner, a pilot study was conducted for this research which used a method of priming self-uncertainty to be high or low through a short response task. Similar to the manner in which emotions are primed, participants were asked to write about things that they

feel uncertain (certain) about regarding themselves, their future, and/or their place in the world in the current moment, which is a method that has been utilized in a number of previous studies (Hogg, et al., 2007; Hohman, et al., 2010; Sherman, et al., 2009). They were then asked to respond to the Self-Uncertainty Scale (Rast, et al., 2013) to determine if their self-uncertainty was successfully primed. These two methods, paired with a control group, were tested in two pilot studies and the priming manipulation was shown to be the most effective, where participants were asked to think of things that made them feel uncertain (certain) about themselves and then write the three things that made them feel *most* uncertain (certain). Analysis of the data from both pilot studies showed that this method led to significant differences between conditions and thus was chosen as the preferred manipulation. In the full study, an adapted version of the Self-Uncertainty Scale (Rast, et al., 2013) was used as a manipulation check which removed items that used the word "worried" as opposed to "uncertain" or "concerned."

Accountability

Checks and balances were also manipulated to be either present or lacking in the provided organizational description. The presence of checks and balances was shown in the organizational profile through a description of the chain of command in which the participant was placed and which included a Director of Compliance and a Compliance and Review Office that conducted regular company-wide audits. The participants in this condition were also reminded that their marketing plan would be reviewed by their direct supervisor as well as the compliance department. The lack of checks and balances condition described an organization with a board of directors focused on the success of the company and without a compliance department. Both manipulations were provided an organizational hierarchy to visualize the chain of command they were expected to abide by. Manipulation check questions administered after

the scenario were completed and assessed whether participants perceived these checks and balances (Appendix J).

Dependent Variables

Moral disengagement, ethical sensemaking, and ethical decision-making were measured through participant written responses to a series of seven open-ended questions that followed the Innovative Marketing Inc. scenario (Appendix F). In these questions, participants were asked to respond to a number of aspects of the ethical dilemma such as "What, if anything, do you see as a problem in this situation?" and "What is the rationale for your decisions in the marketing plan?" Each question highlighted an identifying marker of moral disengagement, ethical sensemaking and/or decision ethicality including moral justification, problem recognition, and adherence to social obligations (Bandura, 1986; Marcy & Mumford, 2007 Mumford, et al., 2008).

Coding procedures

Six, trained undergraduate students rated participant responses for moral disengagement, ethical sensemaking and ethical decision-making. Raters underwent a training program that was designed to familiarize them with the Innovative Marketing Inc. scenario, the dependent variables and their markers, benchmark examples, and training against common rater errors. Inter-rater reliability was evaluated, and meetings were held to discuss rating consensus in the initial ratings phase.

Moral Disengagement Variables

Moral Justification

This marker is defined as the extent to which detrimental conduct is made personally and socially acceptable by portraying it in the service of valued social or moral purpose (Bandura,

1986). The usage of this construct allows respondents to justify their actions through the portrayal of benefits for the greater good. Three independent, trained raters evaluated the use of moral justification in participant written responses and interrater reliability was calculated and determined to be sufficient for use in analysis (average *r*wg* = 0.853).

Euphemistic Language

This marker is defined as the extent to which respondents use sanitized and convoluted verbiage to mask reprehensible behavior (Bandura, 1986). This construct allows participants to explain their detrimental conduct in a more polished manner and convince themselves and others that the conduct is socially acceptable. Three independent, trained raters evaluated the use of euphemistic language in participant written responses and interrater reliability was calculated and determined to be sufficient for use in analysis (average *r*wg* = 0.918).

Advantageous Comparison

This marker is defined as the extent to which actions are compared with more reprehensible behavior to render conduct benign or made to appear to be of little consequence (Bandura, 1986). Through comparison of actions, usage of this indicator allows participants to distract from their own conduct. Three independent, trained raters evaluated the use of advantageous comparison in participant written responses and interrater reliability was calculated and determined to be sufficient for use in analysis (average *r*wg* = 0.958).

Displacement & Diffusion of Responsibility

This marker is defined as the extent to which respondents view their actions as springing from the social pressures or dictates of others rather than as something for which they are personally responsible (Bandura, 1986). This construct allows participants to distance themselves from the detrimental conduct through passing blame to a superior or by diffusing responsibility

to group members due to group decisions or a division of labor. Three independent, trained raters evaluated the use of diffusion of responsibility in participant written responses and interrater reliability was calculated and determined to be sufficient for use in analysis (average $r*wg$ = 0.964).

Disregarding/Distorting Consequences

This marker is defined as the extent to which respondents readily provide benefits of their actions, and refusal to acknowledge the consequences to their full extent (Bandura, 1986). Through the distortion of consequences respondents can justify their behavior without considering negative outcomes. Three independent, trained raters evaluated the use of disregard/distortion of consequences in participant written responses and interrater reliability was calculated and determined to be sufficient for use in analysis (average $r*wg$ = 0.945).

Dehumanization

This marker is defined as divesting people of human qualities or attributing bestial qualities to them (Bandura, 1996). Through dehumanization, people no longer view others as people with feelings and emotions but rather as subhuman and therefore makes their conduct seem less consequential. Three independent, trained raters evaluated the use of dehumanization in participant written responses and interrater reliability was calculated and determined to be sufficient, however there was no variability in participant responses on dehumanization and thus, it was not used in analysis (average $r*wg$ = 1.00).

Attribution of Blame

This marker is defined as the extent to which people view themselves as faultless, but rather driven to poor behavior through provocation (Bandura, 1996). Through attribution of blame, people are able to justify bad behavior through a defense argument. Three independent,

trained raters evaluated the use of attribution of blame in participant written responses and interrater reliability was calculated and determined to be sufficient for use in analysis (average $r*wg = 0.958$).

Ethical Sensemaking Variables

Causal Analysis

Causal analysis is the process of identifying key causes of an ethical problem while determining solutions to a complex, ill-defined, and ambiguous event (Marcy & Mumford, 2007; Kligyte, et al., 2007; Mumford, et al., 2008). The two components of causal analysis include problem recognition, determination of the criticality of the causes identified, and the number of causes identified. These components were rated by trained raters on a 5-pt Likert scale ranging from 1(very low usage) to 5(very high usage).

Problem Recognition

Problem recognition refers to the extent to which the participant identified the critical aspects of the ethical dilemma (Mumford, et al., 2008). Three independent, trained raters evaluated the extent of problem recognition in participant written responses and interrater reliability was calculated and determined to be sufficient for use in analysis (average $r*wg = 0.876$).

Criticality and Number of Causes Identified

Criticality of causes refers to the importance or relevance of the causes identified to the ethical dilemma and number of causes identified is defined as the total number of distinct causes related to the ethical problem (Mumford, et al., 2008). Three independent, trained raters evaluated the criticality of causes identified and the number of causes identified in participant

written responses and interrater reliability was calculated and determined to be sufficient for use in analysis (average *r*wg* between 0.884; 0.885 respectively).

Constraint Analysis

Constraint analysis is the process of identifying and examining the key constraints of an ethically ambiguous event while determining solutions to the problem at hand (Hershey, et al., 1990). The components of constraint analysis include breadth and criticality of constraints identified, and the number of constraints identified in participant written responses which were rated by trained raters on a 5-pt Likert scale ranging from 1(very low usage) to 5(very high usage).

Breadth, Criticality, and Number of Constraints Identified

Breadth of constraints refers to the extent to which the constraints identified cover a wide range of factors and elements (i.e., personal situation, stakeholders, etc.). Criticality of constraints refers to the importance or relevance of the constraints identified as obstacles to effective decision-making in an ethically ambiguous event. Finally, number of constraints identified is defined as the total number of distinct constraints related to the ethical problem (Mumford, et al., 2008). Three independent, trained raters evaluated the breadth and criticality of constraints identified and the number of constraints identified in participant written responses and interrater reliability was calculated and determined to be sufficient for use in analysis (range of average *r*wg* between 0.872 - 0.908).

Forecast Analysis

Forecast analysis is the process of mentally simulating future actions and the outcomes of those actions in relation to an ethically ambiguous event (Mumford, et al., 2002; Mumford, et al., 2001). The five components of forecast analysis include short-term forecasting of outcomes,

long-term forecasting of outcomes, forecasting positive outcomes, forecasting negative outcomes, and overall quality of the forecasts. These components were rated on 5-pt Likert scales ranging from 1(very low usage) to 5(very high usage).

Short-term, Long-term, Positive, Negative, and Quality of Forecasting

Short-term forecasting refers to the extent to which participants considered or mentioned outcomes that may occur in a short-term timeframe. Long-term forecasting on the other hand, refers to the extent to which participants considered or mentioned outcomes that may occur in a long-term timeframe. Forecast positivity refers to the extent to which participants considered or mentioned positive outcomes, while forecast negativity refers to the extent to which participants considered or mentioned negative outcomes. Finally, overall quality of the forecasts refers to the extent to which participant forecasts provided detail, were relevant to the ethical dilemma, considered critical aspects of the dilemma, and were realistic to the problem (Mumford, et al., 2008). Three independent, trained raters evaluated extent to which participants engaged in short-term, long-term, positive and negative forecasting of outcomes and the quality of those forecasts in written responses and interrater reliability was calculated and determined to be sufficient for use in analysis (range of average *r*wg* between 0.864 - 0.901).

Ethical Decision-Making Variables

Regard for Welfare of Others

This marker is defined as the extent to which the decision and actions taken reflect attention and care for the welfare of others (Mumford, et al., 2008; 2006). Some indicators of low regard for others are intentionally harming others through deception and retaliation and/or manipulating others for selfish gain. Indicators of high regard for others are intentionally working to benefit others and behaving for the benefit of others, often at personal expense. Three

independent, trained raters evaluated the extent to which participants considered the regard for the welfare of others in their written responses and interrater reliability was calculated and determined to be sufficient for use in analysis (average $r^*wg = 0.831$).

Attending to Personal Responsibilities

This construct is defined as the extent to which the decision and actions taken reflect attention to one's personal responsibilities (Mumford, et al., 2008; 2006). Low personal responsibility may be indicated by negligence, failing to take action, and/or avoiding responsibility. High personal responsibility may be indicated by actively avoiding personal bias, seeking additional information to clarify the situation, and/or being accountable to one's actions, behaviors, and outcomes. Three independent, trained raters evaluated the extent to which participants attended to personal responsibilities in their written responses and interrater reliability was calculated and determined to be sufficient for use in analysis (average $r^*wg = 0.850$).

Adherence to/Awareness of Social Obligations

This marker is defined as the extent to which the decision and actions taken reflect adherence to social obligations such as the organization or society at large (Mumford, et al., 2008; 2006). Indicators of usage may be consideration of guidelines, attending to personal role duties, and/or awareness and consideration of the formal and informal norms. Three independent, trained raters evaluated the extent to which participants adhered to and were aware of social obligations in their written responses and interrater reliability was calculated and determined to be sufficient for use in analysis (average $r^*wg = 0.810$).

Overall Ethicality

This marker is defined as the extent to which the decision and actions taken represent ethical principles and norms (Mumford, et al., 2008; 2006). Indicators of overall ethicality are found through the evaluation of the markers for consideration of the welfare of others, consideration of personal responsibilities, and regard for social obligations, norms, and rules. Three independent, trained raters evaluated the extent to which participants displayed overall ethicality in their written responses and interrater reliability was calculated and determined to be sufficient for use in analysis (average $r^*wg = 0.853$).

Covariates

Leader Identification

As discussed, the leader manipulation consisted of a leader description within a hypothetical, online scenario, thus it was possible that participants identified with their leader at variable levels and across conditions. Considering this possibility, participants were asked to respond to a 7-item adapted version of the Leader Identification Scale (Shamir, et al., 1998). Examples of questions included are "I trust my boss Sam's judgment and decisions completely" and "My boss Sam is a model for me to follow." Participants were asked to indicate the degree to which they agree with each of the seven items using a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). Reliability of the leader identification scale was calculated and considered sufficient for use in analyses (α=0.931).

Personality

To evaluate individual differences and mitigate their influence in analyses of participant responses, respondents were asked to complete a 44-item Personality Scale that evaluates the Big-5 personality traits of neuroticism, openness to experience, agreeableness, conscientiousness, and extraversion (McCrae & Costa, 1982). Some examples of items used are

"I see myself as someone who is talkative" and "I see myself as someone who perseveres until the task is finished." Participants were asked to indicate the degree to which they agree with each of the 44 items using a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). Reliability of each aspect of the personality scale was calculated. Of those scales, extraversion (α=0.848), agreeableness (α=0.700), and neuroticism (α=0.782) were considered sufficient for use in analyses while conscientiousness (α=0.646), and openness to experience (α=0.689) were not considered sufficiently reliable and thus were not used in covariate analysis.

Self-Esteem

Self-esteem can be defined as the subjective evaluation of our own worth based on beliefs and emotional states we hold. This construct has been shown to be distinct from self-uncertainty through a study performed by Hogg and colleagues (2006), that demonstrated that those facing self-uncertainty do not operate through the use of self-enhancement or self-affirmation; two theories that engage self-esteem. To ensure that our self-uncertainty manipulation engages actual self-uncertainty, self-esteem was used as a covariate measure. The Self-Esteem Scale evaluates the personal evaluation of the self as it relates to an individual's attitudes and beliefs through the use of a 10-item validated scale (Rosenberg, 1965). Examples of statements that will be used are "I feel that I have a number of good qualities," and "I wish I could have more respect for myself." Participants were asked to indicate the degree to which they agree with each of the ten items using a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). Reliability of the self-esteem scale was calculated and considered sufficient for use in analyses (α=0.885).

Social Desirability

Since this study involved responding to an ethical dilemma, it is possible that participants chose to answer in a socially desirable manner, as opposed to responding true to how they would

actually behave. To account for this, the 17-item Social Desirability Scale-17 (Stöber, 2001). Some examples of statements that will be used are "I sometimes litter" and "I occasionally speak badly of others behind their back." Participants were asked to indicate the degree to which they agree with each of the 17 items using a dichotomous True or False scale. Reliability of the social desirability scale was calculated and was not considered sufficient for use in analyses (α=0.645).

Emotions

Individual emotion has been linked to ethical decision-making by researchers and has been identified as a potentially prevalent factor in ethically ambiguous events (Gaudine & Thorne, 2001; Kligyte, et al., 2013; etc.). Due to this relationship, both positive and negative trait affect were evaluated on a 5-point Likert scale from 1(very slightly or not at all) to 5(extremely) the extent to which they were experiencing 20 emotions in the current moment (Watson, Clark & Tellegen, 1988). Positive affect includes emotions such as interest, excitedness, pride, etc. Reliability of the positive scale was calculated and considered sufficient for use in analyses (α=0.905). Negative affect includes emotions such as distress, fear, nervousness, etc. Reliability of the negative affect scale was calculated and considered sufficient for use in analyses (α=0.904).

General Intelligence

To measure intelligence, participants were asked to complete the verbal reasoning scale of Ruch and Ruch's (1983) Employee Aptitude Survey (EAS). Research has shown that there is a significant relationship between intelligence and aspects of decision-making such as idea generation (Mumford & Gustafson, 1988), thus intelligence was assessed and employed as a covariate measure. Participants were given five minutes to work through this 30-item measure that contained sets of facts accompanied by sets of conclusions for which they were asked to

mark whether the conclusion was "true," "false," or "uncertain" based on the given facts. Split half reliability on odd and even items of the general intelligence scale was calculated, and the Spearman-Brown coefficient was considered sufficient for use in analyses (r_h=0.801).

Gender

Gender in this study referred to a participant's self-identified biological sex. In past research, gender has shown to significantly impact the quality of ethical decision-making such that biological females are often more ethical than biological males (Ambrose & Schminke, 1999; O'Fallon & Butterfield, 2005; Tenbrunsel & Smith-Crowe, 2008). Participants were thus asked to indicate their gender in a demographics form (70.6% Female, 28.3% Male, .8% Other).

English as a First Language

English as a first language was assessed as the task assigned to participants is cognitively demanding and prior research has shown that language is not simply a social construct, but there are implicit cultural differences that create more complexity and higher cognitive demand when completing tasks such as the one in this study. Participants were asked to respond to a "Yes" or "No" prompt asking if English was their first language (92.7% Yes).

Demographics

Additional demographic information was collected for use as potential covariates including age (M = 19.07, SD = 2.394), race/ethnicity (59.2% Caucasian), year in school (68.2% Freshman), the number of marketing (89.4% had taken none) and business classes (81.2% had taken none) taken, experience working in a coffee shop (79.6% had never worked in a coffee shop), and leadership positions held (38.8% held 1-2 positions).

Analyses

First, descriptive statistics were calculated on the demographic variables, independent and dependent variables as well as the covariates. Correlations were conducted between the dependent variables and covariates to inform the use of covariate selection during the hypothesis testing stage and scale and item reliabilities as well as reliability for rated dependent variables were calculated. Next, correlations were conducted between moral disengagement and ethical sensemaking with ethical decision-making, followed by multiple regression analyses to predict decision-ethicality from the moral disengagement mechanisms and the ethical sensemaking variables indicated in ratings of participant short-answer responses. Third, independent samples t-tests were conducted to compare condition means on the manipulation check scales for leader type, self-uncertainty, and accountability. Finally, to test the hypotheses, a series of univariate (ANCOVA) analyses were conducted to examine the individual, two-way, and three-way interactive effects of independent variables leader type, level of self-uncertainty, and accountability on dependent variables moral disengagement, ethical sensemaking, and ethical decision-making.

Results

Prior to hypothesis testing, descriptive statistics and bivariate correlations between the covariates and dependent variables were examined. Table 1 reflects the results of this analysis for the moral disengagement variables, Table 2 reflects the results for ethical sensemaking variables, and Table 3 reflects the results for ethical decision-making. These correlations guided the selection of covariates for the different dependent variables of interest. With this in mind, ANCOVAs initially included the set of covariates with a significant bivariate correlation with the dependent variable in the analysis. Covariates that retained a significant relationship with a given dependent variable in the ANCOVAs were retained. showed sig.

Manipulation Checks

Independent samples t-tests were used to evaluate each of the manipulations of leader type (destructive or socialized), self-uncertainty (uncertain or certain) or accountability (presence or lack of checks and balances). The results of the analysis revealed that both the leader ($t(243) = 6.67$, $p < 0.001$) and self-uncertainty ($t(243) = 1.98$, $p < 0.05$) manipulations showed significant mean differences based on condition, indicating that participants in the destructive leader conditions perceived that leader as more destructive than participants in the socialized leader conditions, and participants in the high self-uncertain conditions felt more uncertain than those in the low self-uncertain condition. The accountability manipulation was not perceived differently by participants at a significant level ($t(243) = -.929$, $p = 0.36$). While the accountability manipulation was not validated by the manipulation check, it is argued that when there are no viable alternative explanations for effects, a failed manipulation check does not invalidate the results (Sigall & Mills, 1998), and thus, the manipulation was still evaluated as planned to check effects on the outcome variables of interest.

Hypothesis Testing

The hypotheses focused on several relationships between moral disengagement, ethical sensemaking and ethical decision-making including the effects of moral disengagement and ethical sensemaking on ethical decision-making, the main effects of leader type, the two-way interactions of leader type and self-uncertainty and leader type and accountability condition, and the three-way interaction of leader type, self-uncertainty and accountability on moral disengagement, ethical sensemaking and ethical decision-making. Most of the dependent variables passed the Levene's homogeneity of variance test. Those that did not pass the test,

indicating heteroscedasticity across study conditions, underwent a logarithmic transformation to normalize variances before further analyses were conducted.

Correlations and Multiple Regression Analyses

Relationships of Follower Moral Disengagement and Follower Ethical Decision-Making

A correlational analysis revealed that there were significant negative correlations between all of the moral disengagement variables and all of the ethical decision-making variables. This indicates that higher levels of moral disengagement were associated with lower levels of ethical decision-making. See Table 4.

Regard for the Welfare of Others

A multiple regression was conducted to predict regard for the welfare of others from the moral disengagement mechanisms. The overall regression model was statistically significant (R^2_{adj}=.162, $F(6,238)$=8.87, p<.001), with the set of moral disengagement mechanisms accounting for significant variance in regard for the welfare of others. Moral justification (β=-.278, t=-2.87, p<.05) was the only mechanism that showed a significant relationship with regard for others welfare.

Awareness of Personal Responsibilities

A multiple regression was conducted to predict awareness of personal responsibilities from the moral disengagement mechanisms. The overall regression model was statistically significant (R^2_{adj}=.161, $F(6,238)$=8.79, p<.001), with the set of moral disengagement mechanisms accounting for significant variance in awareness of personal responsibilities. Moral justification (β=-.303, t=-3.10, p<.05) was the only mechanism that showed a significant relationship with awareness of personal responsibilities.

Adherence to Social Obligations

A multiple regression was conducted to predict adherence to social obligations from the moral disengagement mechanisms. The overall regression model was statistically significant (R^2_{adj}=.167, F(6,238)=7.97, p<.001), with the set of moral disengagement mechanisms accounting for significant variance in adherence to social obligations. Moral justification (β=-.269, t=-2.73, p<.05) was the only mechanism that showed a significant relationship with adherence to social obligations.

Ethical Decision-Making Composite Score

Lastly, a multiple regression was conducted to predict the ethical decision-making composite score from the moral disengagement mechanisms. The overall regression model was statistically significant (R^2_{adj}=.168, F(6,238)=9.22, p<.001), with the set of moral disengagement mechanisms accounting for significant variance in the ethical decision-making composite score. Moral justification (β=-.296, t=-3.05, p<.05) was the only mechanism that showed a significant relationship with ethical decision-making composite score. See Table 5 for full regression results. The findings indicate partial support for hypothesis 1a.

Relationships of Follower Ethical Sensemaking and Follower Ethical Decision-Making

Correlations between the ethical sensemaking variables and ethical decision-making variables revealed significant positive bivariate correlations between all of the ethical sensemaking variables and all of the ethical decision-making variables. This indicates that higher levels of ethical sensemaking were associated with higher levels of ethical decision-making. See Table 4.

Regard for the Welfare of Others

A multiple regression was conducted to predict regard for the welfare of others from the ethical sensemaking variables. The overall regression model was statistically significant

(R^2_{adj}=.182, F(11,233)=5.93, p<.001), with the set of ethical sensemaking variables accounting for significant variance in regard for the welfare of others. Criticality of causes (β=.461, p<.001) and number of causes (β=-.328, p<.001) showed significant relationships with regard for the welfare of others.

Awareness of Personal Responsibilities

A multiple regression was conducted to predict awareness of personal responsibilities from the ethical sensemaking variables. The overall regression model was statistically significant (R^2_{adj}=.272, F(11,233)=9.28 p<.001), with the set of ethical sensemaking variables accounting for significant variance in awareness of personal responsibilities. Problem recognition (β=.164, p<.05), criticality of causes (β=.420, p<.001) and number of causes (β=-.259, p<.001) showed significant relationships with awareness of personal responsibilities.

Adherence to Social Obligations

A multiple regression was conducted to predict adherence to social obligations from the ethical sensemaking variables. The overall regression model was statistically significant (R^2_{adj}=.201, F(11,233)=9.58, p<.001), with the set of ethical sensemaking variables accounting for significant variance in adherence to social obligations. Criticality of causes (β=.416, p<.001) and number of causes (β=-.252 p<.001) showed significant relationships with adherence to social obligations.

Ethical Decision-Making Composite Score

Lastly, a multiple regression was conducted to predict the ethical decision-making composite score from the ethical sensemaking variables. The overall regression model was statistically significant (R^2_{adj}=.227, F(11,233)=7.51, p<.001), with the set of ethical sensemaking variables accounting for significant variance in the ethical decision-making composite score.

Criticality of causes (β=.440, p<.001) and number of causes (β=-.291 p<.001) showed significant relationships with the ethical decision-making composite score. See Table 6 for regression results. The findings indicate partial support for hypothesis 1b.

ANCOVAs

Toxic Triangle Effects on Follower Moral Disengagement

ANCOVA analyses were used to test the main effects of leader type on moral disengagement variables when controlling for intelligence. Moral justification, euphemistic labeling and attribution of blame underwent logarithmic transformations to normalize variances for the ANCOVAs. These results are shown in Table 7. There was a significant main effect for leader type on moral justification (F(1, 223) = 4.05, p<.05, η_p^2 = .017), euphemistic labeling (F(1, 223) = 6.45, p<.05, η_p^2 = .026), and attribution of blame (F(1, 223) = 6.31, p<.05, η_p^2 = .026) . Participants engaged in higher levels of moral justification when exposed to a destructive leader (M= 1.52, SD= .63; M_t =.15, SD_t = .16) than when exposed to a socialized leader (M= 1.35, SD= .51; M_t =.11, SD_t = .14), engaged in higher levels of euphemistic labeling when exposed to a destructive leader (M= 1.33, SD= .39; M_t =.11, SD_t = .12) than when exposed to a socialized leader (M= 1.22, SD= .35; M_t =.07, SD_t = .11) and engaged in higher levels of attribution of blame when exposed to a destructive leader (M= 1.15, SD= .35; M_t =.05, SD_t = .09) than when exposed to a socialized leader (M= 1.07, SD= .21; M_t =.02, SD_t = .07). The other components of moral disengagement did not reveal significant mean differences across leader conditions. Thus, these results provide partial support for hypothesis 2a. While not hypothesized, it should also be noted that there was a main effect of accountability condition on diffusion of responsibility (F(1, 223) = 3.97, p<.05, η_p^2 = .016), such that those in the lack of checks and balances condition engaged in more diffusion of responsibility (M= 1.13, SD= .33; M_t =.04, SD_t

= .09) than those in the presence of checks and balances condition (M= 1.06, SD= .17; M_t =.02, SD_t = .06). Diffusion of responsibility was also log transformed to restore homogeneity of variance.

ANCOVA testing indicated that there were no significant interaction effects between leader type and self-uncertainty on the mechanisms of moral disengagement, but that there was a significant two-way interaction effect between leader type and accountability condition on euphemistic labeling ($F(1, 223) = 4.62$, $p<.05$, $\eta_p^2 = .026$). A pairwise comparison with a Bonferroni correction was conducted indicating that participants engaged in more euphemistic labeling when exposed to a destructive leader and when their organization lacked checks and balances (M= 1.42, SD= .43; M_t =.13, SD_t = .13) when compared to participants exposed to a destructive leader with a presence of checks and balances (M= 1.24, SD= .31; M_t =.08, SD_t = .10), participants exposed to a socialized leader with a lack of checks and balances (M= 1.19, SD= .30; M_t =.07, SD_t = .10) or participants exposed to a socialized leader with a presence of checks and balances (M= 1.23, SD= .40; M_t =.07, SD_t = .12). These results did not support hypothesis 3a, and partially supported hypothesis 4a. See Figure 1 for comparison of estimated marginal means.

Finally, ANCOVA testing indicated no significant three-way interactions between leader type, self-uncertainty, and accountability on any of the moral disengagement mechanisms or the moral disengagement composite score. Thus, hypothesis 5a was not supported.

Ethical Sensemaking

Results for the ethical sensemaking ANCOVAs are shown in Table 8. There was a significant main effect of leader type on negativity of forecasts ($F(1, 223) = 4.34$, $p<.05$, η_p^2 = .019) when accounting for intelligence and identification with the leader. Further examination of

these findings indicate that participants exposed to a destructive leader forecasted fewer negative outcomes (M =1.83, SD = .84) than those exposed to a socialized leader (M =2.01, SD = .84). The other components of ethical sensemaking did not reveal significant mean differences based on leader condition, partially supporting hypothesis 2b. While not hypothesized, it was also found that there was a main effect of accountability condition on positivity of forecasting (F(1, 223) = 4.45, p<.05, η_p^2 = .019) such that those in the lack of checks and balances condition forecasted fewer positive outcomes (M =1.61, SD = .66) than those in the presence of checks and balances condition (M =1.77, SD = .72).

ANCOVA testing revealed no significant two-way interaction effects between leader type and self-uncertainty or between leader type and accountability on any of the ethical sensemaking variables. These findings indicate no support for hypothesis 3b or hypothesis 4b.

ANCOVA testing revealed that that there were significant three-way interaction effects between leader type, self-uncertainty and accountability condition on the sensemaking variables of problem recognition (F(1, 223) = 5.83, p<.05, η_p^2 = .025) when accounting for intelligence, the causal analysis composite score (F(1, 223) = 4.03, p<.05, η_p^2 = .018) when accounting for intelligence, negative affect and agreeableness, breadth of constraints (F(1, 223) = 3.81, p=.054, η_p^2 = .017), criticality of constraints (F(1, 223) = 6.96, p<.05, η_p^2 = .030), number of constraints identified (F(1, 223) = 4.03, p<.05, η_p^2 = .018) when accounting for intelligence, and the constraint analysis composite score (F(1, 223) = 5.84, p<.05, η_p^2 = .025) when accounting for intelligence.

Problem Recognition

A pairwise comparison with a Bonferroni correction indicated significant mean differences between participants exposed to a destructive leader, experiencing self-uncertainty

and in the presence of checks and balances (M =1.64, SD = .74) compared to those exposed to a socialized leader, experiencing self-uncertainty and in the presence of checks and balances (M =2.24, SD = .83), and compared to those exposed to a destructive leader, in the self-certain condition and in the presence of checks and balances (M =2.25, SD = .93). These analyses also revealed a significant mean difference between participants exposed to a socialized leader, experiencing high self-uncertainty and in the presence of checks and balances (M =2.24, SD = .83) and those exposed to a socialized leader, in the self-certainty condition, and in the presence of checks and balances (M =1.72, SD = .88) in relation to problem recognition. See Figure 2 for comparison of estimated marginal means.

Causal Analysis

A pairwise comparison with a Bonferroni correction indicated significant mean differences between participants exposed to a destructive leader, experiencing self-uncertainty and in the presence of checks and balances (M =1.61, SD = .71) compared to those exposed to a socialized leader, experiencing self-uncertainty and in the presence of checks and balances (M =2.07, SD = .84), and compared to those exposed to a destructive leader, in the self-certain condition and in the presence of checks and balances (M =2.03, SD = .69) on the composite score of causal analysis. See Figure 3 for comparison of estimated marginal means.

Breadth of Constraints

A pairwise comparison with a Bonferroni correction indicated significant mean differences between participants exposed to a destructive leader, experiencing self-uncertainty and in the presence of checks and balances (M =1.38, SD = .56) compared to those exposed to a socialized leader, experiencing self-uncertainty and in the presence of checks and balances (M =1.74, SD = .71), and between those exposed to a socialized leader, experiencing self-uncertainty

and lacking checks and balances (M =1.40, SD = .49), compared to those exposed to a socialized leader, in the self-certain condition and in the presence of checks and balances (M =1.74, SD = .71) on breadth of constraints identified. See Figure 4 for comparison of estimated marginal means.

Criticality of Constraints

A pairwise comparison with a Bonferroni correction indicated significant mean differences between participants exposed to a destructive leader, experiencing self-uncertainty and in the presence of checks and balances (M =1.39, SD = .58) compared to those exposed to a socialized leader, experiencing self-uncertainty and in the presence of checks and balances (M =1.78, SD = .89), and compared to those exposed to a destructive leader, in the self-certain condition and in the presence of checks and balances (M =1.81, SD = .69) on criticality of constraints identified. See Figure 5 for comparison of estimated marginal means.

Number of Constraints

Number of constraints underwent a logarithmic transformation to normalize variances across conditions. A pairwise comparison with a Bonferroni correction indicated significant mean differences between participants exposed to a destructive leader, experiencing self-uncertainty and in the presence of checks and balances (M= 1.38, SD= .54; M_t =.11, SD_t= .15) compared to those exposed to a socialized leader, experiencing self-uncertainty and in the presence of checks and balances (M= 1.85, SD= .91; M_t =.22, SD_t = .19). These analyses also revealed significant mean differences between those exposed to a socialized leader, in the self-uncertain condition and lacking checks and balances (M= 1.32, SD= .39; M_t =.10, SD_t = .12) and those exposed to a socialized leader, in the self-uncertain condition and in the presence of checks

and balances (M= 1.85, SD= .91; M_t =.22, SD_t = .19) on the number of constraints identified. See Figure 6 for comparison of estimated marginal means.

Constraint Analysis

A pairwise comparison with a Bonferroni correction indicated significant mean differences between participants exposed to a destructive leader, experiencing self-uncertainty and in the presence of checks and balances (M =1.38, SD = .54) compared to those exposed to a socialized leader, experiencing self-uncertainty and in the presence of checks and balances (M =1.77, SD = .68) on the composite score of constraint analysis. See Figure 7 for comparison of estimated marginal means.

Summarizing the findings of the three-way interactions on ethical sensemaking, it should be noted that the least problem recognition, lowest score on causal analysis, least criticality of constraints, and lowest score on constraint analysis occurred in the condition with a destructive leader, self-uncertainty, and presence of checks and balances. These findings show support for the hypothesized three-way interaction between leader, follower, and environment, but checks and balances performed differently than was expected, providing partial support for hypothesis 5b.

Ethical Decision-Making

Table 9 shows the ANCOVA results for ethical decision making. Leader type significantly influenced awareness of personal responsibilities (F(1, 223) = 5.99, p<.05, η_p^2 = .026) and the ethical decision-making composite score (F(1, 223) = 3.77, p=.054, η_p^2 = .017) when controlling for intelligence and agreeableness. Further examination of these findings indicate that participants exposed to a destructive leader showed less awareness of personal responsibilities (M =2.04, SD = 1.11) than those exposed to a socialized leader (M =2.40, SD =

1.10). These results also indicate that participants made overall less ethical decisions when exposed to a destructive leader (M =1.90, SD = 1.05) than when exposed to a socialized leader (M =2.19, SD = 1.07). The other individual components of ethical decision-making did not reveal significant mean differences based on leader condition and thus, partial support for hypothesis 2c is provided.

ANCOVA testing revealed that there were no significant two-way interaction effects between leader type and self-uncertainty or between leader type and accountability on any of the ethical decision-making variables. These findings indicate no support for hypothesis 3c or hypothesis 4c.

ANCOVA testing revealed that there were no significant three-way interaction effects between leader type, self-uncertainty and accountability on any of the ethical decision-making variables. These findings indicate no support for hypothesis 5c.

Discussion

The current study examined how the confluence of destructive leaders, susceptible followers, and conducive environments interact to effect follower moral disengagement, ethical sensemaking and ethical decision-making. The findings here provide an important contribution to understanding destructive leadership as a process and on the fields of moral disengagement, ethical sensemaking and ethical decision-making as they relate to leadership. The results of this effort provide evidence that leaders have an impact on the ethical cognitions and decision-making of followers during times of ethical ambiguity and crisis. Overall, findings indicated that aspects of moral disengagement, ethical sensemaking and ethical decision-making are susceptible to the influence of some elements of the destructive leader toxic triangle which involved negative behavior on behalf of the leader, self-uncertainty in the followers themselves,

and accountability in the environment in this study. Additionally, study results replicated patterns from prior research regarding the relationships of moral disengagement and ethical sensemaking on ethical decision-making as theorized in their respective literatures (Johnson & Connelly, 2016; MacDougall, et al., 2015; Caughron, et al., 2011; etc.)

Regarding follower moral disengagement, the type of leader and the environment in which the ethical dilemma takes place affected follower use of moral disengagement in responding to an ethical dilemma, while self-uncertainty did not play a significant role. Destructive leadership significantly affected the use of moral justification, euphemistic labeling and attribution of blame independent of follower self-uncertainty or environmental attributes. These findings indicate that leaders not only influence followers' unethical decision-making, but how they view and justify those decisions. Additionally, destructive leaders in organizations that lack checks and balances resulted in more follower use of euphemistic labeling when dealing with ethical situations. Essentially, destructive leaders paired with low organizational accountability environments provide the basis for cognitive reframing of decisions and dilemmas to occur. This reframing provides an internal source of justification for decisions that may counter previously held moral convictions.

The greatest evidence for toxic triangle effects emerged in the findings for follower ethical sensemaking processes. The negative effects of a destructive leader on follower sensemaking are exacerbated for followers experiencing high self-uncertainty in an organizational environment where checks and balances were present. Follower problem recognition, causal analysis, breadth and criticality of constraints identified, number of constraints identified, and constraint analysis were negatively affected by the confluence of a destructive leader, follower self-uncertainty, and organizational checks and balances. Followers

experiencing self-uncertainty may be more likely to seek guidance from a leader. Self-focused leaders who engage in destructive behaviors serve as poor role models who do not exert time and effort on understanding ethical situations. Followers looking for reassurance and guidance from these leaders also engage in less ethical sensemaking. The presence of checks and balances in the organization may send a message to followers that they do not need to invest time or energy in understanding ethical situations because other units or individuals in the organization are ultimately responsible. Alternatively, uncertain followers may perceive a lack of consequences for unethical behavior when working with a destructive leader whose behavior has seemingly gone unchecked. Thus, when organizational checks and balances are not in place, followers may assume greater personal responsibility for recognizing ethical problems and identifying causes and constraints. In instances where accountability mechanisms are present, followers may feel as though the checks and balances will ultimately resolve any issues and it is here, where they will focus solely on resolution of their uncertainty by way of guidance from the leader. Other sensemaking processes such as forecasting potential negative outcomes were inhibited solely by the presence of a destructive leader. Research has shown that personalized leaders can strategically frame a situation and reinforce reprehensible behavior by making it seem inconsequential (Beu & Buckley, 2004), dampening followers' ability to see negative outcomes of their actions in the process.

Finally, as with forecasting negative consequences, destructive leadership reduced follower ethical decision-making, regardless of the level of follower self-uncertainty or the presence/absence of organizational checks and balances. The presence of a destructive leader reduced follower awareness of personal responsibilities and overall ethicality of the decision being made. Personalized leaders place their own goals ahead of organizational goals and ethical

principles, and thus, implicitly sanction follower disregard for their responsibilities. It is important to note that while the toxic leadership triangle variables did not jointly influence follower ethical decision-making, regression results suggest that these operate through certain moral disengagement mechanisms and ethical sensemaking processes to exert influence on ethical decisions, suggesting the possible exploration of moderated mediational models.

Limitations

Some study limitations should be noted before discussing potential theoretical and practical implications. First, this study was conducted using an online scenario-based presentation of the organization and ethical dilemma, which resulted in some incomplete or random participant answering. While these responses were filtered out, there is potential that the incomplete and random answering was due to participants not feeling engaged with the organization or leader since the scenarios were hypothetical and low fidelity. However, the use of low-fidelity simulations allows for more controlled, experimental evaluations of causal influences that would be difficult to ascertain in organizational settings and online delivery of studies involving leadership hold merit given the transition to remote and hybrid work environments. It is also important to note that, while this scenario has been used in previous research with undergraduate students to better understand ethical decision making (e.g., Sanders, 2020), the moral intensity of the low-fidelity simulation may not have been salient enough for participants. A marketing role was chosen as it is believed that many undergraduate students have experience in business or marketing, however alternative settings and scenarios should be considered for future research.

Additionally, there are limitations in terms of some of the manipulation checks and covariate scale reliabilities. It should be noted that the accountability manipulation check did not

show significant group mean differences when looking across conditions. While this was the case, the accountability manipulation exerted significant effects and thus, there may have been flaws in the manipulation check scale as opposed to the manipulation itself. Nonetheless, this warrants exploration of other methods for manipulating and evaluating this construct for future research. In-person delivery of this scenario could also be considered for future research seeking to evaluate interpersonal leader-follower influences in a roleplay, confederate scenario or in actual organizational settings. In terms of covariates, while we measured social desirability as a covariate, analysis showed that the scale was not reliable and thus did not allow controlling for the extent to which participants responded in a socially acceptable manner given the ethical nature of the scenario. Despite this, participant responses to the ethical scenario showed range and variability within and across conditions, making this less of a concern.

Finally, the generalizability of the findings is limited to moderately well-educated young adults given the nature of the sample. There is value in experimental studies of undergraduate students however, in that it offers a chance to look at causal relationships among these independent and dependent variables. Additionally, the study of young adults is highly useful in the evaluation of self-uncertainty, as research has shown that this population is susceptible to feeling uncertain and influence by others (Hogg & Smith, 2007). Organizational studies are needed to replicate and extend the findings to improve generalizability.

Implications and Future Directions

Even considering the limitations of this study, there are several theoretical and practical implications to discuss. Theoretically, this study adds to the body of validity evidence for destructive leadership as a process of influence involving the leader, follower, and environment. This type of empirical research was noted as a gap in the literature by a recent meta-analysis

(Mackey, et al., 2021), and thus, this study contributes a novel examination of destructive leadership through the inclusion of self-uncertain followers and environments lacking checks and balances. This quantitative examination can be used to inform the toxic triangle theory of destructive leadership in the exploration of other combinations of follower and environmental attributes to the process. Future research should evaluate the outcomes found in this study in other contexts and with other samples to better understand and generalize the results presented. Additionally, future studies should seek to evaluate other follower attributes noted by the susceptible circle (Thoroughgood, et al., 2012) to determine what follower roles may result in the most severe consequences for organizations and individuals, especially in consideration of colluders and conformers.

In addition to serving as a framework for studying destructive leadership in a complex way, this study also contributes to the literature through the evaluation of specific follower outcomes. While many articles in the destructive leader literature evaluate leader-, job-, organization-, and individual-related outcomes and some hypothesize the relationship between these leader processes and follower ethical decision-making, sensemaking and moral disengagement, few actually empirically study these specific outcomes (Schyns, et al., 2013; Mitchell, et al., 2007). Since ethics in organizations is critical to firm survival, developing an understanding of how this leader process can influence these outcomes was addressed. Future research should implement follow-up studies regarding the findings of the accountability conditions to determine when check mechanisms should be implemented for effective resolution of ethical issues or when alternative interventions would be more appropriate. Future research should also evaluate other organization and individual level outcomes that have been studied

outside of the toxic triangle process model and apply them in the context of the proposed three-way interactions.

This research also expands the literature on self-uncertainty through the evaluation of ethical decision-making, sensemaking and moral disengagement. Similar to the destructive leadership literature, the relationships between self-uncertainty and destructive leaders have been made, but few outcomes have been empirically evaluated. This opens opportunities for future research to evaluate other follower and/or organizational outcomes from destructive leadership and self-uncertainty.

In terms of practical implications, this research provides organizations an empirical understanding of destructive outcomes and how to minimize their appearance. Through enhanced knowledge about the antecedents of destructive outcomes, organizations can actively monitor their system of checks and balances, employee attributes, and leader goals and behaviors. This research also lends itself to suggest the importance of employee and leader training and observation. While organizational accountability has been shown to have effects on individual behavior, implementing external accountability in this study, showed to be ineffective in the context of the toxic triangle; in some instances worsening the ethical decision-making of followers. This is not to say that accountability checks are unimportant, but it does emphasize the need to have an awareness of the nature of the leader in place and the uncertainty that followers may be experiencing. Organizations have seen the destructive outcomes of ethical decision-making in popular culture with the downfall of firms such as Enron and Worldcom, thus the criticality of leader observation and training, organizational accountability, and follower self-clarity may be enhanced to mitigate the possibility of these failures.

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Appendix A: Tables

Table 1

Descriptive Statistics and Correlations for Covariates and Moral Disengagement

	M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
Covariates														
1. Age	19.07	2.39	--											
2. Gender	--	--	-.197**	--										
3. PA	26.84	8.99	0.074	-0.112	(.91)									
4. NA	20.12	8.66	-0.075	0.026	.213**	(.91)								
5. Extraversion	24.87	5.98	0.05	0.108	.332**	-0.035	(.85)							
6. Agreeableness	32.38	4.59	-0.067	0.068	.183**	-.148*	.129*	(.70)						
7. Neuroticism	26.09	5.27	-0.042	.282**	-.209**	.335**	-.130*	-0.033	(.78)					
8. Self-Esteem	35.14	7.92	0.032	0.086	.246**	-.464**	.376**	.178**	-.466**	(.89)				
9. Leader ID	22.51	5.82	0.002	0.005	.258**	-0.008	.170**	0.075	-0.033	0.105	(.93)			
10. Verbal Reasoning	29.04	8.06	-0.038	0.03	-.206**	-.288**	-.136*	.152*	0.031	0.11	-0.099	(.77)		
Moral Disengagement														
11. Moral Justification	1.43	0.57	-0.017	-0.099	-0.013	-0.001	0.026	0.044	-0.045	0.046	0.055	0.049	(.85)	
12. Euphemistic Lang	1.27	0.37	-0.013	-0.042	-0.061	-0.038	0.059	-0.023	0.014	0.077	0.058	0.064	.703**	(.92)
13. Adv Comparison	1.14	0.28	0.037	-0.106	0.067	0.105	-0.025	0.002	0.072	0.007	0.045	0.116	.530**	.459**
14. Diff Responsibility	1.09	0.267	-0.019	-0.12	0.071	-0.004	0.028	-0.032	-0.051	0.033	0.078	0.122	.395**	.193**
15. Distort Cons.	1.15	0.284	-0.021	-0.086	0.044	-0.051	0.004	0.026	0.037	-0.041	-0.03	0.082	.657**	.566**
16. Dehumanization	1.00	0.00	.b	.b	.b	.b	.b	.b	.b	.b	.b	.b	.b	.b
17. Attribution Blame	1.12	0.29	-0.04	-0.052	-0.006	-0.046	0.008	-0.013	0.017	-0.049	-0.081	.131*	.445**	.379**
18. MD Composite	1.20	0.26	-0.017	-0.111	0.012	-0.009	0.026	0.007	0.002	0.026	0.035	0.115	.900**	.786**

Note. N=245. Reliabilities presented along diagonals. *Indicates $p<.05$. **Indicates $p<.001$

Table 1 cont.

Descriptive Statistics and Correlations for Covariates and Moral Disengagement

	13	14	15	16	17	18
Covariates						
1. Age						
2. Gender						
3. PA						
4. NA						
5. Extraversion						
6. Agreeableness						
7. Neuroticism						
8. Self-Esteem						
9. Leader ID						
10. Verbal Reasoning						
Moral Disengagement						
11. Moral Justification						
12. Euphemistic Lang						
13. Adv Comparison	(.96)					
14. Diff Responsibility	.288**	(.96)				
15. Distort Cons.	.459**	.384**	(.94)			
16. Dehumanization	.b	.b	.b	(1.0)		
17. Attribution Blame	.330**	.361**	.507**	.b	(.96)	
18. MD Composite	.678**	.550**	.800**	.b	.651**	(.82)

Note. N=245. Reliabilities presented along diagonals. *Indicates $p<.05$. **Indicates $p<.001$

Table 2

Descriptive Statistics and Correlations for Covariates and Ethical Sensemaking

	M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
Covariates														
1. Age	19.07	2.39	--											
2. Gender	--	--	-.197**	--										
3. PA	26.84	8.99	0.074	-0.112	(.91)									
4. NA	20.12	8.66	-0.075	0.026	.213**	(.91)								
5. Extraversion	24.87	5.98	0.05	0.108	.332**	-0.035	(.85)							
6. Agreeableness	32.38	4.59	-0.067	0.068	.183**	-.148*	.129*	(.70)						
7. Neuroticism	26.09	5.27	-0.042	.282**	-.209**	.335**	-.130*	-0.033	(.78)					
8. Self-Esteem	35.13	7.92	0.032	0.086	.246**	-.464**	.376**	.178**	-.466**	(.89)				
9. Leader ID	22.51	5.82	0.002	0.005	.258**	-0.008	.170**	0.075	-0.033	0.105	(.93)			
10. Verbal Reasoning	29.04	8.06	-0.038	0.03	-.206**	-.288**	-.136*	.152*	0.031	0.11	-0.099	(.77)		
Ethical Sensemaking														
11. Problem Recog	2.03	0.88	0.106	0.098	0.033	-.179**	-0.033	.202**	0.038	0.121	0.026	.285**	(.88)	
12. Criticality Causes	1.97	0.96	0.039	0.094	-0.072	-.210**	-0.063	.184**	-0.028	0.049	0.104	.298**	.538**	(.89)
13. # Causes	1.8	0.79	0.065	0.08	-0.031	-.174**	-0.027	.221**	-0.042	0.052	0.076	.267**	.410**	.793**
14. Breadth Constraints	1.5	0.6	0.03	0.088	-0.057	-.135*	-0.067	0.039	0.012	0.11	0.102	.208**	.435**	.428**
15. Crit Constraints	1.62	0.71	-0.014	0.082	0.039	-0.112	-0.067	0.094	-0.054	.128*	.130*	.144*	.512**	.441**
16. # Constraints	1.52	0.68	0.009	0.081	-0.104	-0.115	-0.061	0.038	0.038	0.065	0.001	.213**	.343**	.328**
17. Short-term Fore	1.79	0.82	0.083	-0.03	-.252**	-.258**	-.259**	.169**	0.079	-0.024	-.169**	.416**	.310**	.367**
18. Long-term Fore	2.03	0.9	0.113	0.066	0.067	-0.103	0.068	0.082	-0.057	0.106	-0.055	.244**	.498**	.415**
18. Positive Fore	1.7	0.73	0.04	0.028	-0.059	-.196**	0.021	.153*	-0.117	0.085	-0.069	.342**	.311**	.294**
20. Negative of Fore	1.97	0.87	0.106	-0.01	-0.124	-.168**	-.165*	0.079	0.068	-0.01	-.153*	.295**	.464**	.437**
21. Quality Fore	1.86	0.76	.136*	0.032	-0.118	-.214**	-0.094	.133*	0.025	0.026	-.164*	.382**	.570**	.501**
22. Causal Analysis	1.93	0.74	0.081	0.107	-0.029	-.222**	-0.049	.237**	-0.012	0.087	0.082	.334**	.769**	.921**
23. Constraint Analysis	1.56	0.63	0.007	0.088	-0.006	-.128*	-0.07	0.071	-0.025	0.125	0.122	.180**	.496**	.453**
24. Forecast Analysis	1.87	0.64	0.123	0.022	-0.12	-.236**	-0.11	.156*	0.002	0.047	-.156*	.428**	.550**	.514**

Note. N=245. Reliabilities presented along diagonals. *Indicates $p<.05$. **Indicates $p<.001$

Table 2 cont.

Descriptive Statistics and Correlations for Covariates and Ethical Sensemaking

	13	14	15	16	17	18	19	20	21	22	23	24
Covariates												
1. Age												
2. Gender												
3. PA												
4. NA												
5. Extraversion												
6. Agreeableness												
7. Neuroticism												
8. Self-Esteem												
9. Leader ID												
10. Verbal Reasoning												
Ethical Sensemaking												
11. Problem Recog												
12. Criticality Causes												
13. # Causes	(.88)											
14. Breadth Constraints	.406**	(.88)										
15. Crit Constraints	.422**	.848**	(.91)									
16. # Constraints	.334**	.814**	.637**	(.87)								
17. Short-term Fore	.330**	.283**	.219**	.250**	(.90)							
18. Long-term Fore	.340**	.357**	.360**	.354**	.147*	(.89)						
19. Positive Fore	.324**	.321**	.290**	.280**	.466**	.495**	(.88)					
20. Negative of Fore	.324**	.320**	.318**	.309**	.577**	.630**	.168**	(.86)				
21. Quality Fore	.403**	.421**	.397**	.403**	.613**	.776**	.524**	.827**	(.89)			
22. Causal Analysis	.856**	.498**	.540**	.394**	.396**	.494**	.363**	.484**	.581**	(.81)		
23. Constraint Analysis	.431**	.955**	.967**	.747**	.258**	.373**	.317**	.332**	.424**	.541**	(.90)	
24. Forecast Analysis	.437**	.432**	.403**	.406**	.704**	.785**	.655**	.829**	.954**	.591**	.433**	(.84)

Note. N=245. Reliabilities presented along diagonals. *Indicates $p<.05$. **Indicates $p<.001$

Table 3

Descriptive Statistics and Correlations for Covariates and Ethical Decision-Making

	M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
Covariates														
1. Age	19.07	2.39	--											
2. Gender	--	--	-.197**	--										
3. PA	26.84	8.99	0.074	-0.112	(.91)									
4. NA	20.12	8.66	-0.075	0.026	.213**	(.91)								
5. Extraversion	24.87	5.98	0.05	0.108	.332**	-0.035	(.85)							
6. Agreeableness	32.38	4.59	-0.067	0.068	.183**	-.148*	.129*	(.70)						
7. Neuroticism	26.09	5.27	-0.042	.282**	-.209**	.335**	-.130*	-0.033	(.78)					
8. Self-Esteem	35.13	7.92	0.032	0.086	.246**	-.464**	.376**	.178**	-.466**	(.89)				
9. Leader ID	22.51	5.82	0.002	0.005	.258**	-0.008	.170**	0.075	-0.033	0.105	(.93)			
10. Verbal Reasoning	29.04	8.06	-0.038	0.03	-.206**	-.288**	-.136*	.152*	0.031	0.11	-0.099	(.77)		
EDM														
11. Reg Welfare Others	1.95	1.06	-0.004	0.109	0.003	-0.058	0.049	.168*	0.087	-0.019	-0.082	.195**	(.83)	
12. Personal Resp	2.23	1.12	0.011	0.102	-0.023	-0.097	0.042	.208**	0.102	0.02	-0.048	.249**	.926**	(.85)
13. Social Obligations	1.98	1.06	0.00	0.112	0.002	-0.062	0.027	.152*	0.085	0.003	-0.061	.209**	.948**	.934**
14. Overall Ethicality	2.06	1.12	0.01	0.118	-0.013	-0.075	0.051	.191**	0.106	-0.016	-0.05	.218**	.962**	.958**
15. EDM Composite	2.0	1.07	0.004	0.112	-0.008	-0.075	0.043	.184**	0.097	-0.003	-0.061	.222**	.978**	.974**

Note. N=245. Reliabilities presented along diagonals. *Indicates $p<.05$. **Indicates $p<.001$

Table 3 cont.

Descriptive Statistics and Correlations for Covariates and Ethical Decision-Making

	13	14	15
Covariates			
1. Age			
2. Gender			
3. Race/Ethnicity			
4. Year in College			
5. English 1st Lang			
6. # Leadership Pos			
7. # Marketing Classes			
8. # Business Classes			
9. PA			
10. NA			
11. Extraversion			
12. Agreeableness			
13. Neuroticism			
14. Self-Esteem			
15. Leader ID			
16. Verbal Reasoning			
EDM			
17. Reg Welfare Others			
18. Personal Resp			
19. Social Obligations	(.81)		
20. Overall Ethicality	.963**	(.85)	
21. EDM Composite	.980**	.990**	(.99)

Note. N=245. Reliabilities presented along diagonals. *Indicates $p<.05$. **Indicates $p<.001$

Table 4

Correlations for Moral Disengagement, Ethical Sensemaking, and Ethical Decision-Making

	M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
Moral Disengagement														
1. Moral Justification	1.43	0.57	1											
2. Euphemistic Label	1.27	0.37	.703**	1										
3. Adv Comparison	1.14	0.28	.530**	.459**	1									
4. Diff Responsibility	1.09	0.27	.395**	.193**	.288**	1								
5. Dist Consequences	1.15	0.28	.657**	.566**	.459**	.384**	1							
6. Attribution Blame	1.11	0.29	.445**	.379**	.330**	.361**	.507**	1						
7. MD Composite	1.20	0.26	.900**	.786**	.678**	.550**	.800**	.651**	1					
Ethical Sensemaking														
8. Problem Recog	2.03	0.88	0.005	0.004	0.07	-0.038	0.043	0.039	0.024	1				
9. Criticality Causes	1.97	0.95	-0.043	-0.084	0.085	-0.009	-0.027	0.009	-0.025	.538**	1			
10. # Causes	1.80	0.79	0.047	0.079	.135*	-0.003	0.058	0.06	0.082	.410**	.793**	1		
11. Breadth Constraints	1.50	0.60	0.121	0.124	0.076	0.083	0.059	0.121	.135*	.435**	.428**	.406**	1	
12. Crit Constraints	1.62	0.71	0.091	0.104	0.043	0.074	0.073	.137*	0.117	.512**	.441**	.422**	.848**	1
13. # Constraints	1.52	0.68	0.071	0.094	0.063	0.078	0.044	0.115	0.102	.343**	.328**	.334**	.814**	.637**
14. Short-term Fore	1.79	0.79	0.078	0.077	.131*	0.043	0.093	0.047	0.104	.310**	.367**	.330**	.283**	.219**
15. Long-term Fore	2.03	0.90	-0.047	0.01	0.059	-0.027	-0.072	-0.01	-0.024	.498**	.415**	.340**	.357**	.360**
16. Positive Fore	1.70	0.73	0.045	0.016	-0.02	-0.075	-0.017	-0.021	-0.003	.311**	.294**	.324**	.321**	.290**
17. Negative of Fore	1.97	0.87	-0.006	0.063	.131*	0.036	0.009	0.042	0.052	.464**	.437**	.324**	.320**	.318**
18. Quality Fore	1.86	0.76	-0.02	0.027	.139*	-0.036	0.007	0.004	0.02	.570**	.501**	.403**	.421**	.397**
19. Causal Analysis	1.93	0.74	0	-0.007	0.112	-0.02	0.026	0.04	0.027	.769**	.921**	.856**	.498**	.540**
20. Constraint Analysis	1.56	0.63	0.109	0.118	0.061	0.081	0.069	.135*	.130*	.496**	.453**	.431**	.955**	.967**
21. Forecast Analysis	1.87	0.64	0.011	0.05	0.114	-0.013	0.004	0.017	0.038	.550**	.514**	.437**	.432**	.403**
EDM														
22. Reg Welfare Others	1.95	1.06	-.414**	-.357**	-.256**	-.170**	-.317**	-.217**	-.410**	.344**	.355**	.159*	.189**	.184**
23. Personal Resp	2.23	1.11	-.414**	-.349**	-.222**	-.179**	-.310**	-.233**	-.405**	.427**	.434**	.248**	.279**	.272**
24. Social Obligations	1.98	1.06	-.396**	-.341**	-.231**	-.175**	-.304**	-.207**	-.392**	.355**	.369**	.191**	.231**	.223**
25. Overall Ethicality	2.06	1.12	-.432**	-.363**	-.261**	-.192**	-.319**	-.219**	-.424**	.378**	.395**	.211**	.228**	.225**
26. EDM Composite	2.06	1.07	-.423**	-.360**	-.247**	-.183**	-.319**	-.223**	-.416**	.384**	.397**	.207**	.237**	.231**

Note. N=245. *Indicates $p<.05$. **Indicates $p<.001$

Table 4 cont.

Correlations for Moral Disengagement, Ethical Sensemaking, and Ethical Decision-Making

	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Moral Disengagement														
1. Moral Justification														
2. Euphemistic Label														
3. Adv Comparison														
4. Diff Responsibility														
5. Dist Consequences														
6. Attribution Blame														
7. MD Composite														
Ethical Sensemaking														
8. Problem Recog														
9. Criticality Causes														
10. # Causes														
11. Breadth Constraints														
12. Crit Constraints														
13. # Constraints	1													
14. Short-term Fore	.637**	1												
15. Long-term Fore	.219**	.250	1											
16. Positive Fore	.360**	.354	.147*	1										
17. Negative of Fore	.290**	.280	.466**	.495**	1									
18. Quality Fore	.318**	.309	.577**	.630**	.168**	1								
19. Causal Analysis	.397**	.403	.613**	.776**	.524**	.827**	1							
20. Constraint Analysis	.540**	.394	.396**	.494**	.363**	.484**	.581**	1						
21. Forecast Analysis	.967**	.747	.258**	.373**	.317**	.332**	.424**	.541**	1					
EDM														
22. Reg Welfare Others	.155*	.195	.299**	.187**	.294**	.346**	.344**	.194**	.338**	1				
23. Personal Resp	.234**	.262	.380**	.221**	.400**	.446**	.441**	.286**	.438**	.926**	1			
24. Social Obligations	.193**	.208	.339**	.219**	.326**	.395**	.365**	.236**	.380**	.948**	.934**	1		
25. Overall Ethicality	.187**	.234	.347**	.216**	.353**	.406**	.392**	.235**	.398**	.962**	.958**	.963**	1	
26. EDM Composite	.197**	.230	.348**	.215**	.351**	.407**	.394**	.243**	.397**	.978**	.974**	.980**	.990**	1

Note. N=245. *Indicates $p<.05$. **Indicates $p<.001$

Table 5

Multiple Regression: Ethical Decision-Making on Moral Disengagement

	Regard for the Welfare of Others			Awareness of Personal Responsibilities			Adherence to Social Obligations			Ethical Decision-Making Composite		
	β	*t*	*p*	*β*	*t*	*p*	*β*	*t*	*p*	*β*	*t*	*p*
Moral Justification	-.279	-2.87*	.005	-.303	-3.10*	.002	-.269	-2.73*	.007	-.296	-3.05*	.003
Euphemistic Labeling	-.116	-1.34	.181	-.109	-1.27	.206	-.116	-1.33	.184	-.115	-1.34	.180
Advantageous Comparison	-.027	-.382	.703	.022	.310	.757	-.004	-.061	.951	-.008	-.115	.908
Displacement of Responsibility	-.007	-.103	.918	-.017	-.251	.802	-.023	-.346	.730	-.019	-.289	.773
Distortion of Consequences	-.046	-.545	.586	-.032	-.378	.706	-.046	-.537	.592	-.038	-.454	.650
Attribution of Blame	-.014	-.198	.843	-.042	-.596	.552	-.010	-.137	.891	-.019	-.268	.789
Model Summary	*R*	R^2	R^2_{Adj}	*R*	R^2	R^2_{Adj}	*R*	R^2	R^2_{Adj}	*R*	R^2	R^2_{Adj}
	.428[a]	.183	.162	.426[a]	.181	.161	.409[a]	.167	.146	.434[a]	.189	.168

Note. N = 245. *Significant at .05. ** Significant at .001. *β* = Standardized *β*, *p* = significance level, a = Predictors: (constant), MJ, DR, DC, AB, AC, DC, EL.

Table 6

Multiple Regression: Ethical Decision-Making on Ethical Sensemaking

	Regard for the Welfare of Others			Awareness of Personal Responsibilities			Adherence to Social Obligations			Ethical Decision-Making Composite		
	β	*t*	*p*	*β*	*t*	*p*	*β*	*t*	*p*	*β*	*t*	*p*
Problem Recognition	.144	1.80	.073[b]	.161	2.17*	.031	.112	1.41	.160	.142	1.82	.070[b]
Criticality of Causes	.461	4.35**	.001	.420	4.20**	.001	.416	3.98**	.001	.440	4.27**	.001
Number of Causes	-.328	-3.37**	.001	-.259	-2.81*	.005	-.282	-2.91*	.004	-.291	-3.06*	.002
Breadth of Constraints	.039	.262	.793	.074	.523	.602	.059	.396	.693	.054	.372	.710
Criticality of Constraints	-.062	-.521	.603	-.050	-.448	.655	-.047	-.401	.689	-.051	-.445	.657
Number of Constraints	-.002	-.022	.983	.002	.023	.982	.000	-.005	.996	-.002	-.021	.983
Short-Term Forecasting	-.035	-.260	.795	-.030	-.232	.817	-.105	-.785	.433	-.055	-.416	.678
Long-Term Forecasting	.012	.074	.941	.021	.144	.886	-.045	-.290	.772	-.002	-.012	.990
Positive Forecasting	.058	.522	.602	.039	.374	.709	.086	.782	.435	.064	.583	.560
Negative Forecasting	.043	.280	.780	.109	.757	.450	.061	.405	.686	.076	.515	.607
Quality of Forecasts	.121	.704	.482	.126	.775	.439	.234	1.38	.170	.160	.958	.339
Model Summary	*R*	R^2	R^2_{Adj}	*R*	R^2	R^2_{Adj}	*R*	R^2	R^2_{Adj}	*R*	R^2	R^2_{Adj}
	.468[a]	.219	.182	.552[a]	.305	.272	.487[a]	.237	.201	.512[a]	.262	.227

Note. N = 245. *Significant at .05. ** Significant at .001. *β* = Standardized *β*, *p* = significance level, a = Predictors: (constant), a = Predictors: (Constant), Forecast Analysis, Constraint Analysis, Number of Constraints, Breadth of Constraints, Criticality of Causes, Number of Causes, Negative Forecast, Positive Forecast, Short-Term Forecast, Long-term Forecasts, Quality of Forecasts, and Problem Recognition. b = approaching significance.

Table 7

ANCOVA Results for Moral Disengagement

	Moral Justification			Euphemistic Labeling			Advantageous Comparison			Diffusion of Responsibility			Distortion of Consequences			Attribution of Blame		
	F	*p*	η_p^2	*F*	*p*	η_p^2	*F*	*p*	η_p^2	*F*	*p*	η_p^2	*F*	*p*	η_p^2	*F*	*p*	η_p^2
Corrected Model	1.49	.171	.042	2.09*	.048	.058	.707	.666	.020	1.60	.137	.045	.430	.883	.013	2.48*	.018	.068
Intercept	169.86**	.001	.417	150.78**	.000	.389	3894.4**	.001	.943	34.67**	.001	.128	3920.8**	.001	.943	49.29**	.000	.172
Main Effects																		
Leader Type	4.05*	.045	.017	6.44*	.012	.026	.037	.848	.000	.004	.950	.000	1.20	.274	.005	6.31*	.013	.026
Self-Uncertainty	.204	.652	.001	.388	.534	.002	.556	.457	.002	.564	.453	.002	.013	.910	.000	3.42	.066[a]	.014
Accountability	2.70	.102	.011	2.40	.123	.010	.383	.536	.002	3.97*	.047	.016	.579	.448	.002	2.87	.091[a]	.012
Two-Way Interactions																		
LT*SU	.028	.867	.000	.045	.832	.000	1.27	.262	.005	1.60	.207	.007	.909	.341	.004	.223	.637	.001
LT*A	1.61	.206	.007	4.62*	.033	.019	.835	.362	.004	1.76	.186	.007	.034	.853	.000	1.30	.256	.005
Three-Way Interaction																		
LT*SU*A	1.13	.289	.005	.117	.733	.000	.566	.452	.002	2.44	.120	.010	.123	.726	.001	3.39	.067[a]	.014

Note. N = 245. *Significant at .05. ** Significant at .001. *F* = F-ratio, *p* = significance level, η_p^2 = partial eta-squared effect size estimate, a = approaching significance. MJ, EL, DR, and AB underwent logarithmic transformations.

Table 8

ANCOVA Results for Ethical Sensemaking

	Problem Recognition			Criticality of Causes			Number of Causes			Breadth of Constraints			Criticality of Constraints			Number of Constraints		
	F	*p*	η_p^2	*F*	*p*	η_p^2	*F*	*p*	η_p^2	*F*	*p*	η_p^2	*F*	*p*	η_p^2	*F*	*p*	η_p^2
Corrected Model	4.15**	.001	.129	4.00**	.001	.153	3.69**	.001	.130	2.94*	.003	.106	1.80	.079[e]	.060	2.94*	.004	.095
Intercept	33.07**	.001	.128	1.16	.282	.005	.017	.895	.000	23.89**	.001	.097	53.2**	.001	.191	.02	.887	.000
Main Effects																		
Leader Type	.682	.410	.003	3.25[abd]	.073[g]	.014	.820	.366	.004	2.07	.152	.009	.899	.344	.004	1.10	.297	.005
Self-Uncertainty	1.06	.305	.005	.408	.524	.002	.720	.397	.003	.046	.830	.000	.460	.498	.002	.070	.791	.000
Accountability	.362	.548	.004	.002	.957	.000	.081	.776	.000	.246	.620	.001	.123	.726	.001	1.75	.187	.008
Two-Way Interactions																		
LT*SU	3.28	.072[e]	.014	.287	.593	.001	.082	.775	.000	.021	.886	.000	.266	.607	.001	.064	.800	.000
LT*A	.434	.857	.000	.126	.723	.001	.191	.662	.001	.103	.749	.000	.027	.870	.000	.891	.346	.004
Three-Way Interaction																		
LT*SU*A	5.83*[a]	.017	.025	1.85	.175	.008	1.03	.311	.005	3.74[ae]	.054[g]	.016	6.96*[a]	.009	.030	4.03*[a]	.046	.018

Note. N = 245. *Significant at .05. ** Significant at .001. *F* = F-ratio, *p* = significance level, η_p^2 = partial eta-squared effect size estimate, a = Intelligence, b = Agreeableness, c = NA, d = Leader Identification, e = approaching significance. Number of Constraints underwent a logarithmic transformation.

Table 8 cont.

ANCOVA Results for Ethical Sensemaking

	Long-Term Forecasting			Short-Term Forecasting			Positive Forecasting			Negative Forecasting			Quality of Forecasts		
	F	*p*	η_p^2	*F*	*p*	η_p^2	*F*	*p*	η_p^2	*F*	*p*	η_p^2	*F*	*p*	η_p^2
Corrected Model	2.58*	.010	.084	8.30**	.001	.312	5.02**	.001	.151	4.22**	.001	.145	5.87**	.001	.209
Intercept	33.87**	.001	.131	11.68**	.001	.050	21.51**	.001	.087	30.25**	.001	.119	32.34**	.001	.127
Main Effects															
Leader Type	.399	.528	.002	1.61	.207	.007	1.02	.313	.005	4.34*af	.038	.019	2.33	.129	.010
Self-Uncertainty	.505	.478	.002	.033	.857	.000	1.29	.258	.006	1.40	.237	.006	.829	.364	.004
Accountability	.025	.875	.000	1.64	.292	.007	4.47*a	.036	.019	.365	.546	.002	.311	.577	.001
Two-Way Interactions															
LT*SU	.177	.674	.001	.979	.324	.004	.816	.367	.004	.033	.856	.000	.188	.665	.001
LT*A	.083	.773	.000	1.64	.202	.007	.508	.477	.002	.014	.906	.000	.041	.841	.000
Three-Way Interaction															
LT*SU*A	.193	.661	.001	.982	.323	.004	.876	.350	.004	3.12	.079g	.014	1.72	.192	.009

Note. N = 245. *Significant at .05. ** Significant at .001. *F* = F-ratio, *p* = significance level, η_p^2 = partial eta-squared effect size estimate, a = Intelligence, b = Agreeableness, c = NA, d = Leader Identification, e = approaching significance. Number of Constraints underwent a logarithmic transformation.

Table 8 cont.

ANCOVA Results for Ethical Sensemaking

	Causal Analysis			Constraint Analysis			Forecast Analysis		
	F	*p*	η_p^2	*F*	*p*	η_p^2	*F*	*p*	η_p^2
Corrected Model	5.70*	.001	.204	2.06*	.040	.068	7.06**	.001	.241
Intercept	1.86	.174	.008	56.67**	.001	.201	41.34**	.001	.157
Main Effects									
Leader Type	2.17	.142	.010	1.48	.225	.007	.977	.324	.004
Self-Uncertainty	.940	.333	.004	.140	.709	.001	.878	.350	.004
Accountability	.286	.593	.001	.431	.512	.002	.484	.487	.002
Two-Way Interactions									
LT*SU	.001	.978	.000	.185	.667	.001	.251	.617	.001
LT*A	.533	.466	.002	.000	.989	.000	.502	.479	.002
Three-Way Interaction									
LT*SU*A	4.03*abd	.046	.018	5.75*ae	.017	.025	1.36	.245	.006

Note. N = 245. *Significant at .05. ** Significant at .001. *F* = F-ratio, *p* = significance level, η_p^2 = partial eta-squared effect size estimate, a = Intelligence, b = Agreeableness, c = NA, d = Leader Identification, e = approaching significance. Number of Constraints underwent a logarithmic transformation.

Table 9

ANCOVA Results for Ethical Decision-Making

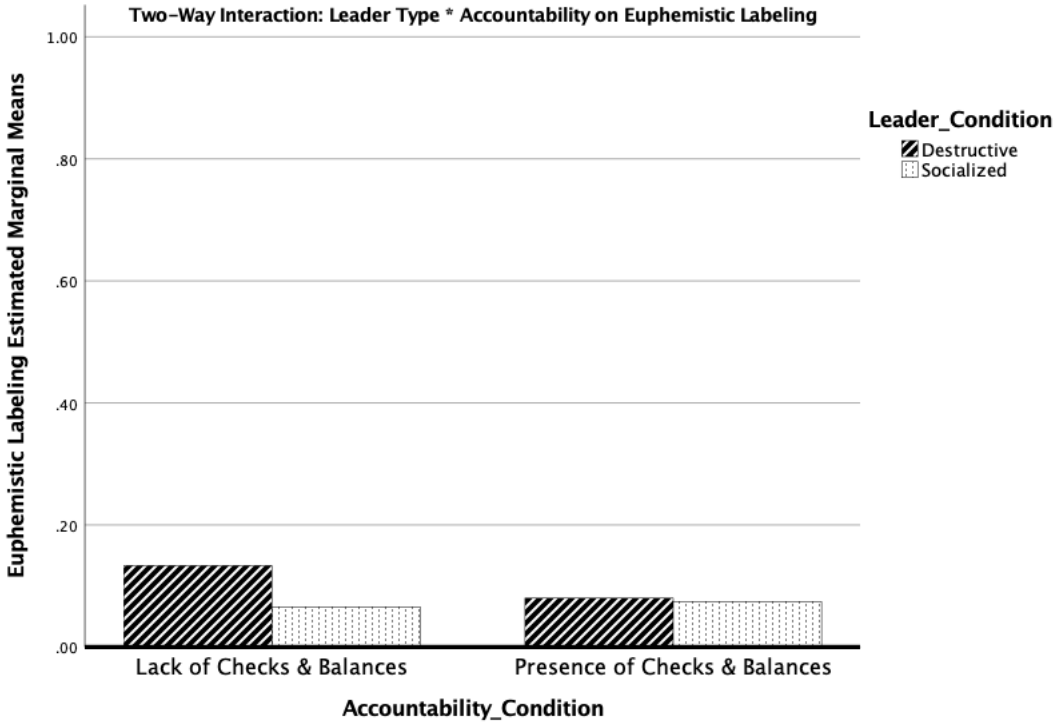
	Regard for the Welfare of Others			Awareness of Personal Responsibilities			Adherence to Social Obligations			Ethical Decision-Making Composite		
	F	*p*	η_p^2	*F*	*p*	η_p^2	*F*	*p*	η_p^2	*F*	*p*	η_p^2
Corrected Model	2.25*	.020	.083	3.70**	.001	.130	2.42*	.012	.089	2.87*	.003	.104
Intercept	.113	.737	.001	.046	.830	.000	.246	.621	.001	.016	.900	.000
Main Effects												
Leader Type	2.38ab	.124	.011	5.99*ab	.015	.026	3.28ab	.071c	.014	3.79ab	.054c	.017
Self-Uncertainty	1.10	.295	.005	1.09	.297	.005	1.29	.257	.006	1.23	.269	.005
Accountability	.148	.701	.001	1.01	.317	.004	.214	.644	.001	.467	.495	.002
Two-Way Interactions												
LT*SU	.117	.733	.001	.093	.760	.000	.020	.888	.000	.048	.827	.000
LT*A	1.73	.190	.008	.002	.962	.000	.003	.956	.000	.000	.998	.000
Three-Way Interaction												
LT*SU*A	.109	.742	.000	.046	.829	.000	.205	.651	.001	.135	.713	.001

Note. N = 245. *Significant at .05. *F* = F-ratio, *p* = significance level, η_p^2 = partial eta-squared effect size estimate, results after controlling for:
a = Intelligence, b = Agreeableness, c = approaching significance.

Appendix B: Figures

Figure 1

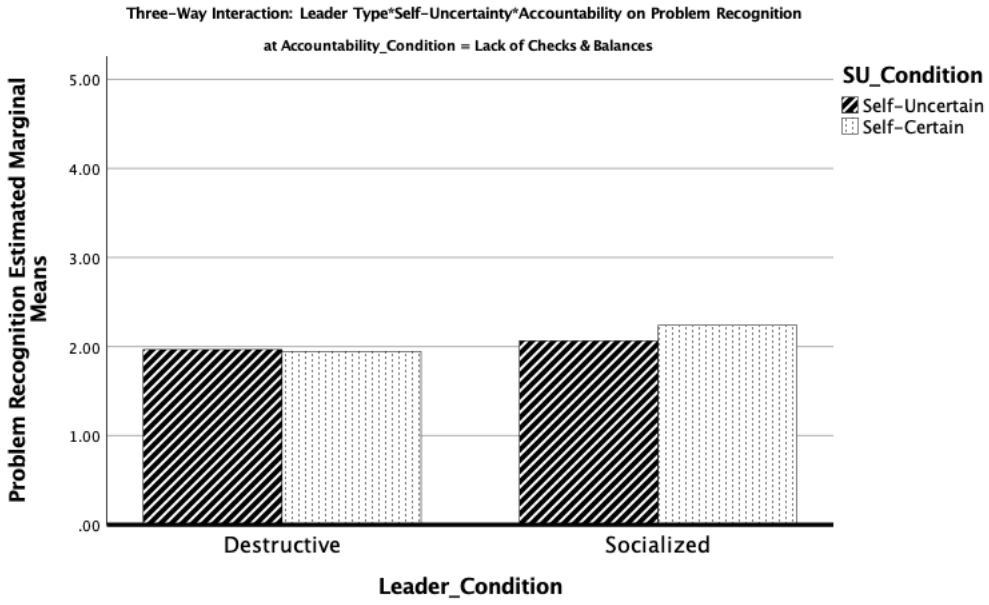
Interaction Results of Leader Type and Accountability Condition on Euphemistic Labeling.



Note: Euphemistic Labeling is Log Transformed

Figure 2

Interaction Results of Leader Type, Self-Uncertainty and Accountability Condition on Problem Recognition.



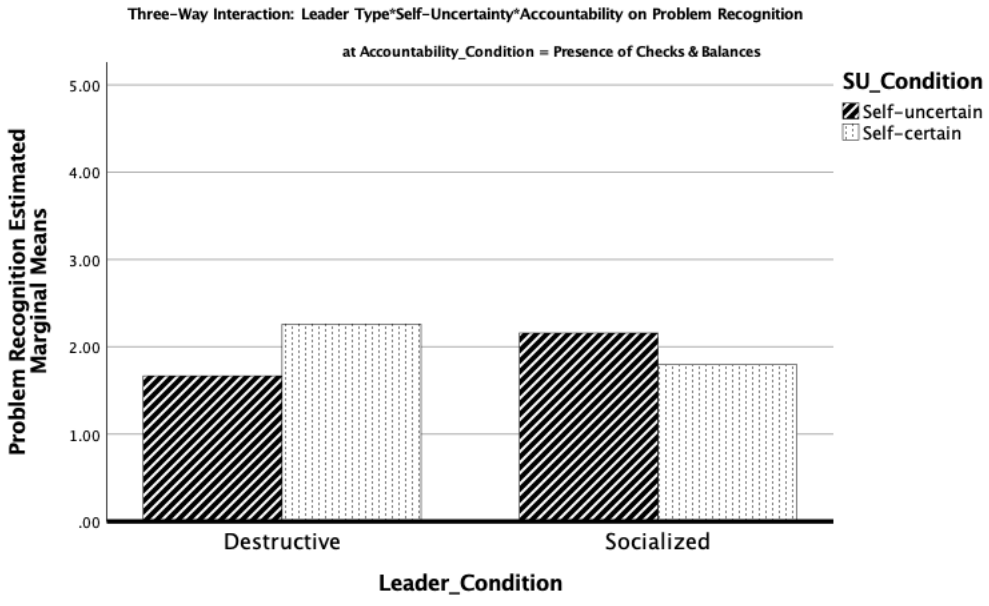
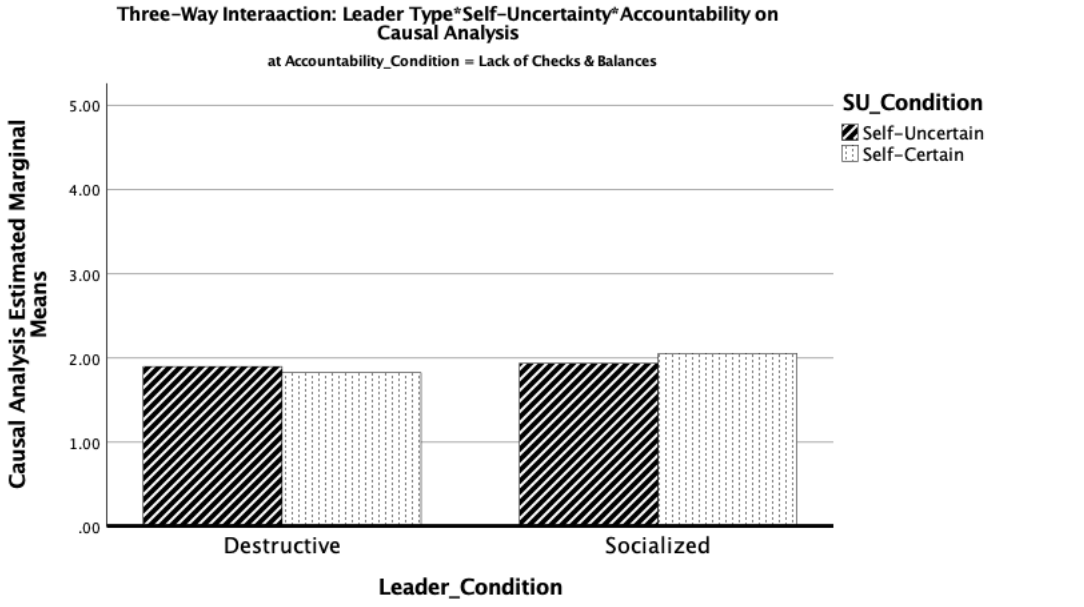


Figure 3

Interaction Results of Leader Type, Self-Uncertainty and Accountability Condition on Causal Analysis.



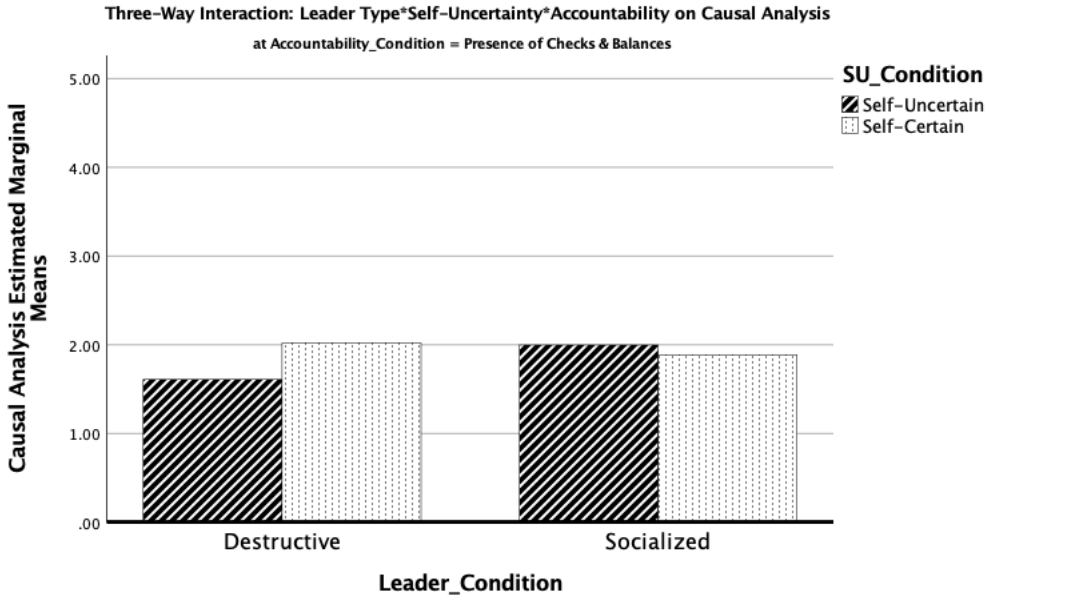
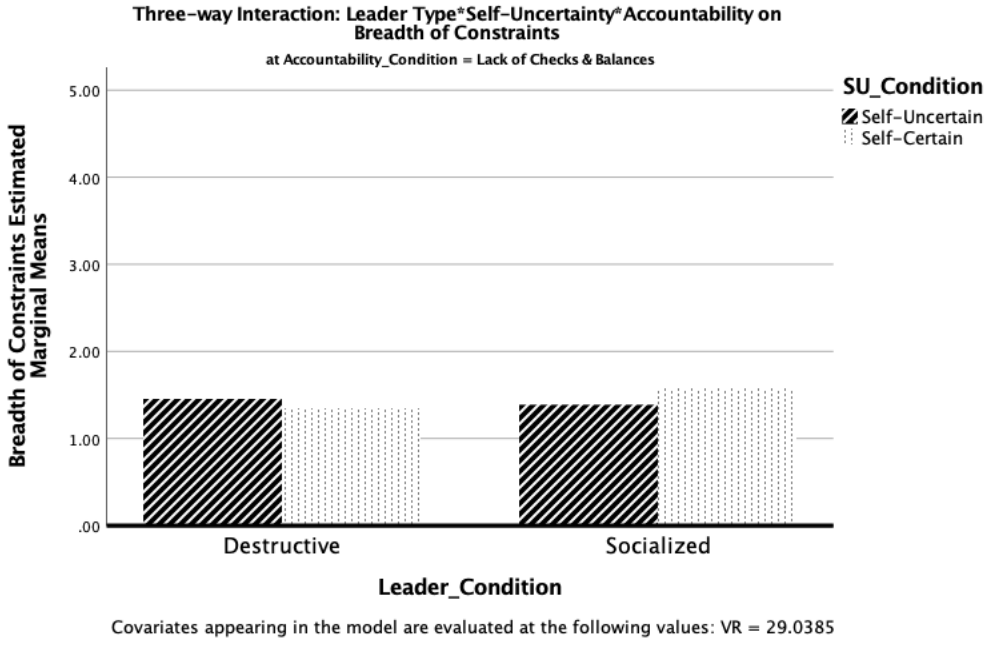


Figure 4

Interaction Results of Leader Type, Self-Uncertainty and Accountability Condition on Breadth of Constraints.



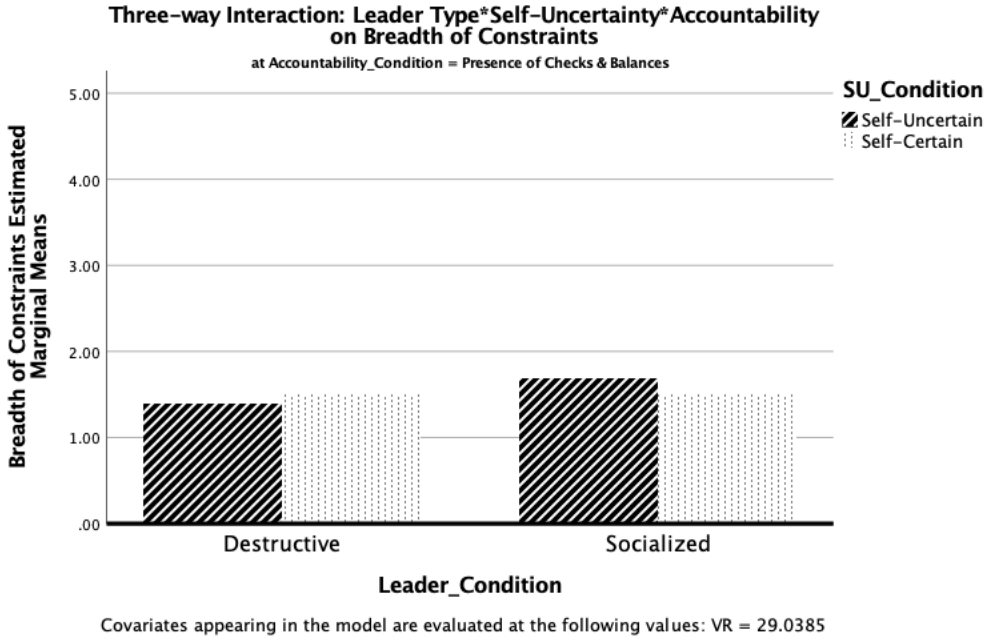


Figure 5

Interaction Results of Leader Type, Self-Uncertainty and Accountability Condition on Criticality of Constraints.

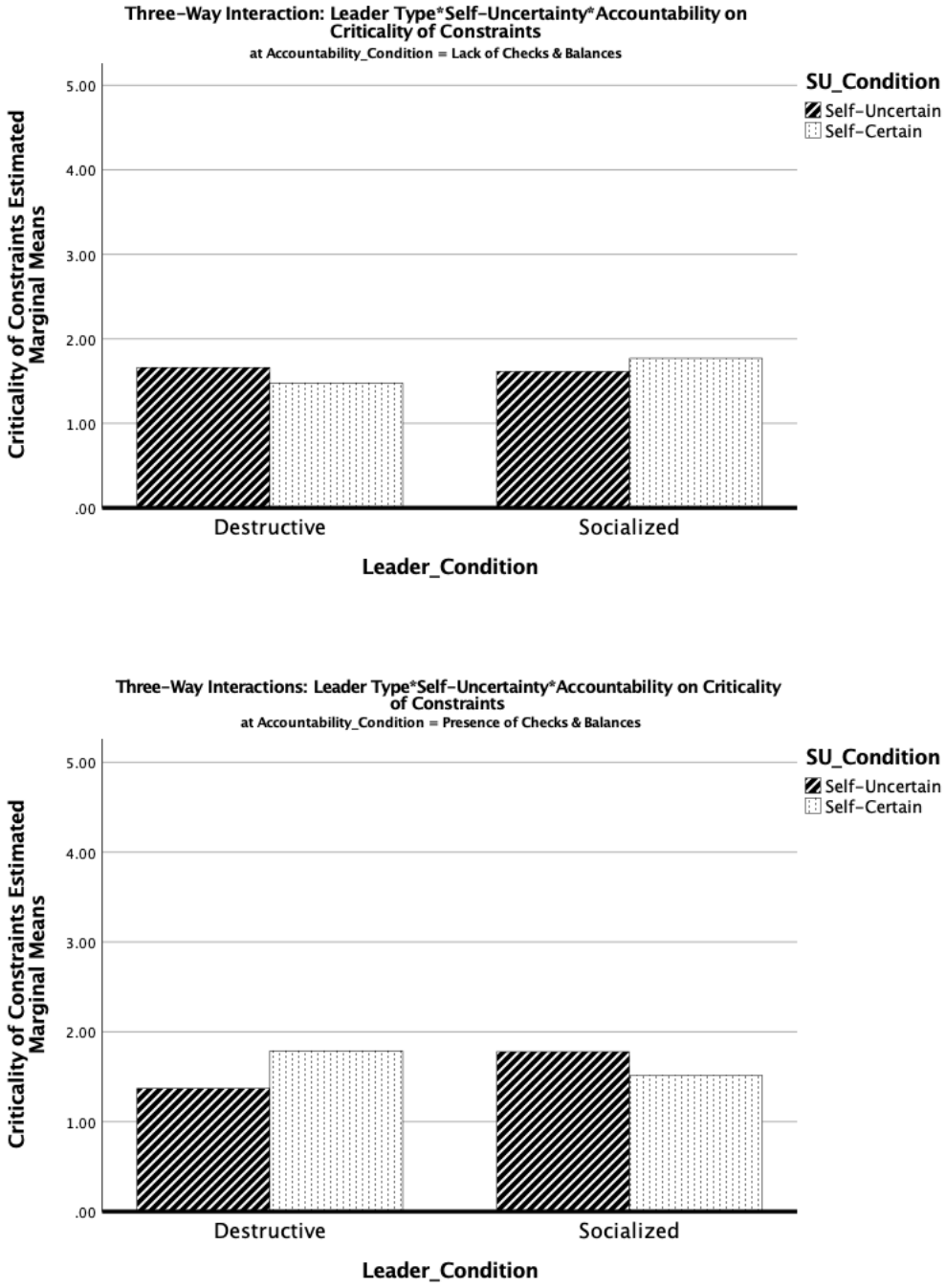
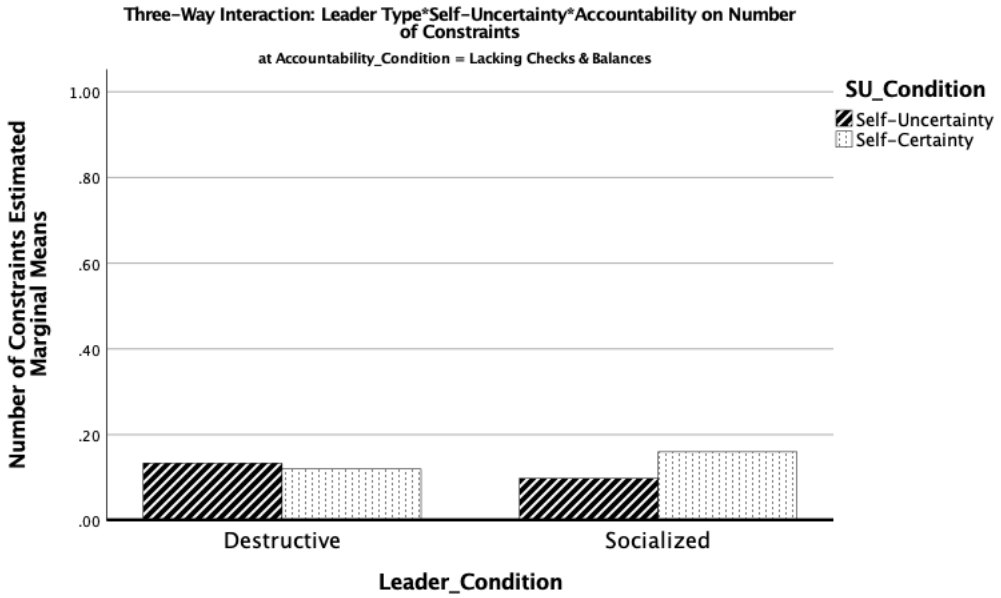


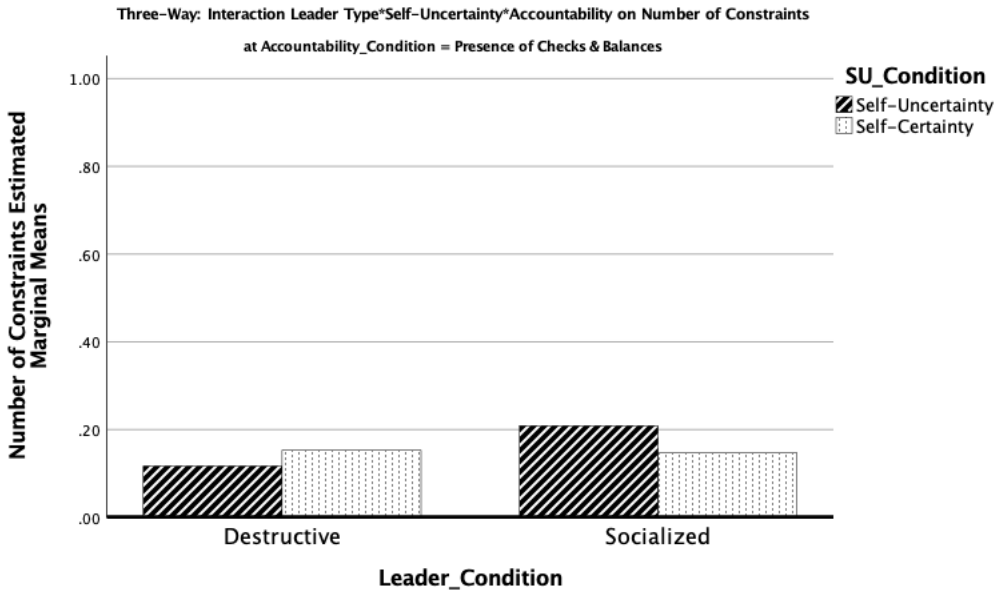
Figure 6

Interaction Results of Leader Type, Self-Uncertainty and Accountability Condition on Number of Constraints.



Covariates appearing in the model are evaluated at the following values: VR = 29.0385

Note: Number of Constraints is Log Transformed

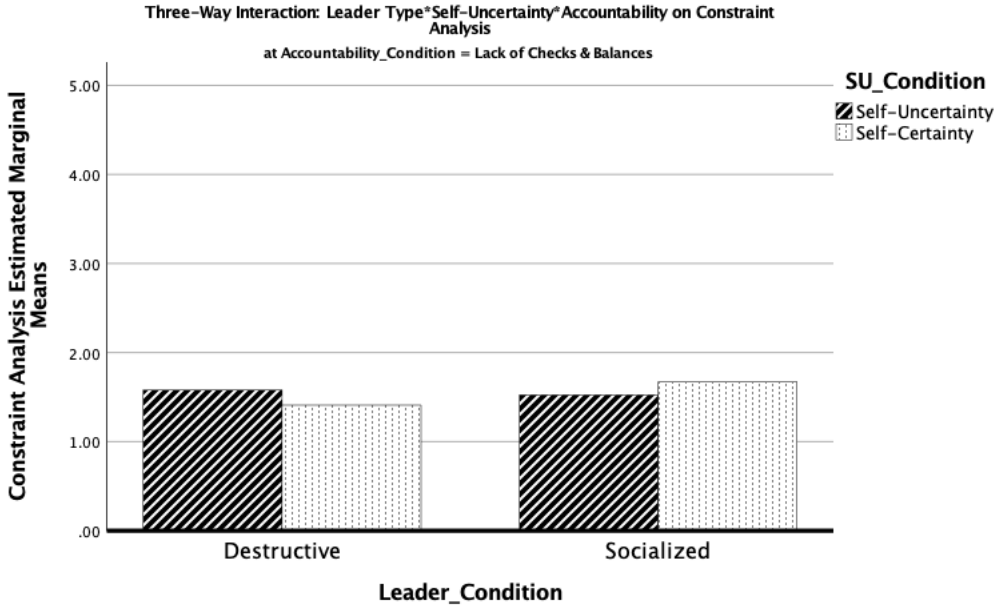


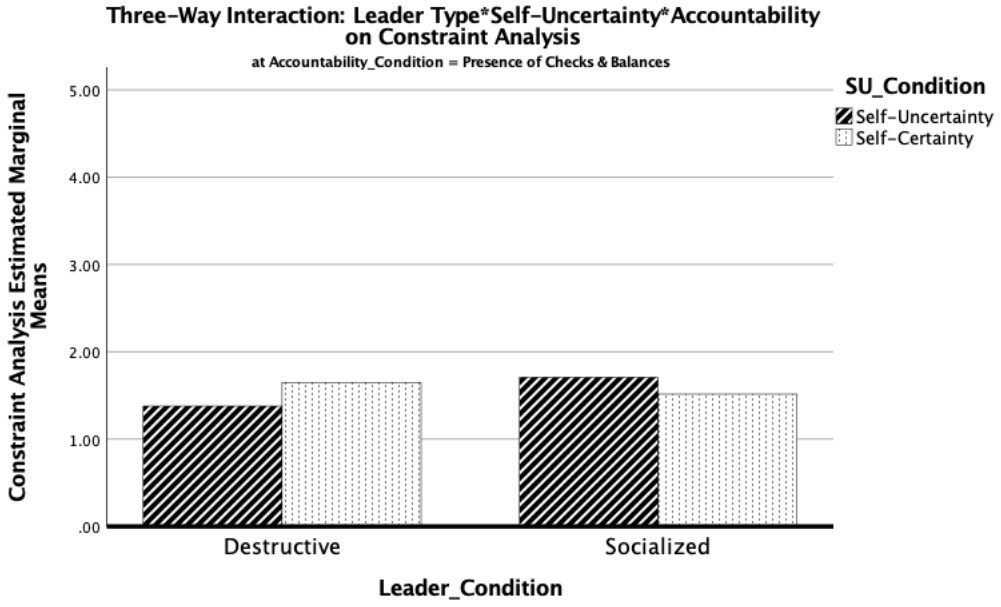
Covariates appearing in the model are evaluated at the following values: VR = 29.0385

Note: Number of Constraints is Log Transformed

Figure 7

Interaction Results of Leader Type, Self-Uncertainty and Accountability Condition on Constraint Analysis.





Appendix C: Innovative Marketing, Inc. Case Pt. 1

Innovative Marketing, Inc. Case

General Instructions

This is a study about problem-solving in the field of marketing, and in this study, you will begin by responding to a number of survey questions. You will then take on the role of a research analyst in a marketing firm where you will be given background information before being asked to complete a task. Additionally, you will complete a variety of other measures including questions related to personal demographics. As you read through the materials, **please take your time, answer each question thoroughly** and provide detailed responses where applicable.

Appendix D: Self-Uncertainty Manipulation

Self-Uncertainty Manipulation

1. *Please think about some of the things that make you feel uncertain. After taking a moment, please list the three things that make you feel the **most** uncertain about yourself, your future, and/or your place in the world.*
2. *Please think about some of the things that make you feel certain. After taking a moment, please list the three things that make you feel the **most** certain about yourself, your future, and/or your place in the world.*

Self-Uncertainty Manipulation Check

Self-Uncertainty

7-item Self-Uncertainty Measure (Rast, Gaffney, Hogg, and Crisp, 2012)

1. I am uncertain about myself
2. I am uncertain about my future
3. I am concerned about my future
4. I am worried about my future
5. I am uncertain about my place in the world
6. I am worried about my place in the world
7. I am concerned about my place in the world

1= Disagree strongly to 5= Agree strongly rating scale

Appendix E: Checks & Balances Manipulation

Checks and Balances Manipulation

Role Description

Now you will be asked to take on the role of a marketing research analyst at a firm named Innovative Marketing, Inc. The below description includes information about your job and what it is like to work at Innovative Marketing. **Please keep this information in mind**.

Innovative Marketing, Inc. Case Part 1

You are Jordan Burns, a team member in research and competitive analysis for Innovative Marketing, Inc. which specializes in marketing and advertising research. Employment status and internal structure at Innovative Marketing are stable and clear, and all departments within the organization have shared goals and values. Within Innovative Marketing there are a number of market research departments, each focusing on different types of industries such as pharmaceuticals, travel, and the newest addition, coffee. (INSERT APPROPRIATE CHECKS & BALANCES MANIPULATION)

Existence: Along with the CEO, Grayson Davis, there is an independent board of directors that provide organizational oversight. Reporting to both the CEO and the Board of Directors, is the Vice President of Marketing, Gary Beam, who provides insight to the marketing team, and the Director of Compliance, Alex Phillips, whose team routinely conducts compliance reports on each department. Your department is accountable to both the VP of Marketing and Director of Compliance.

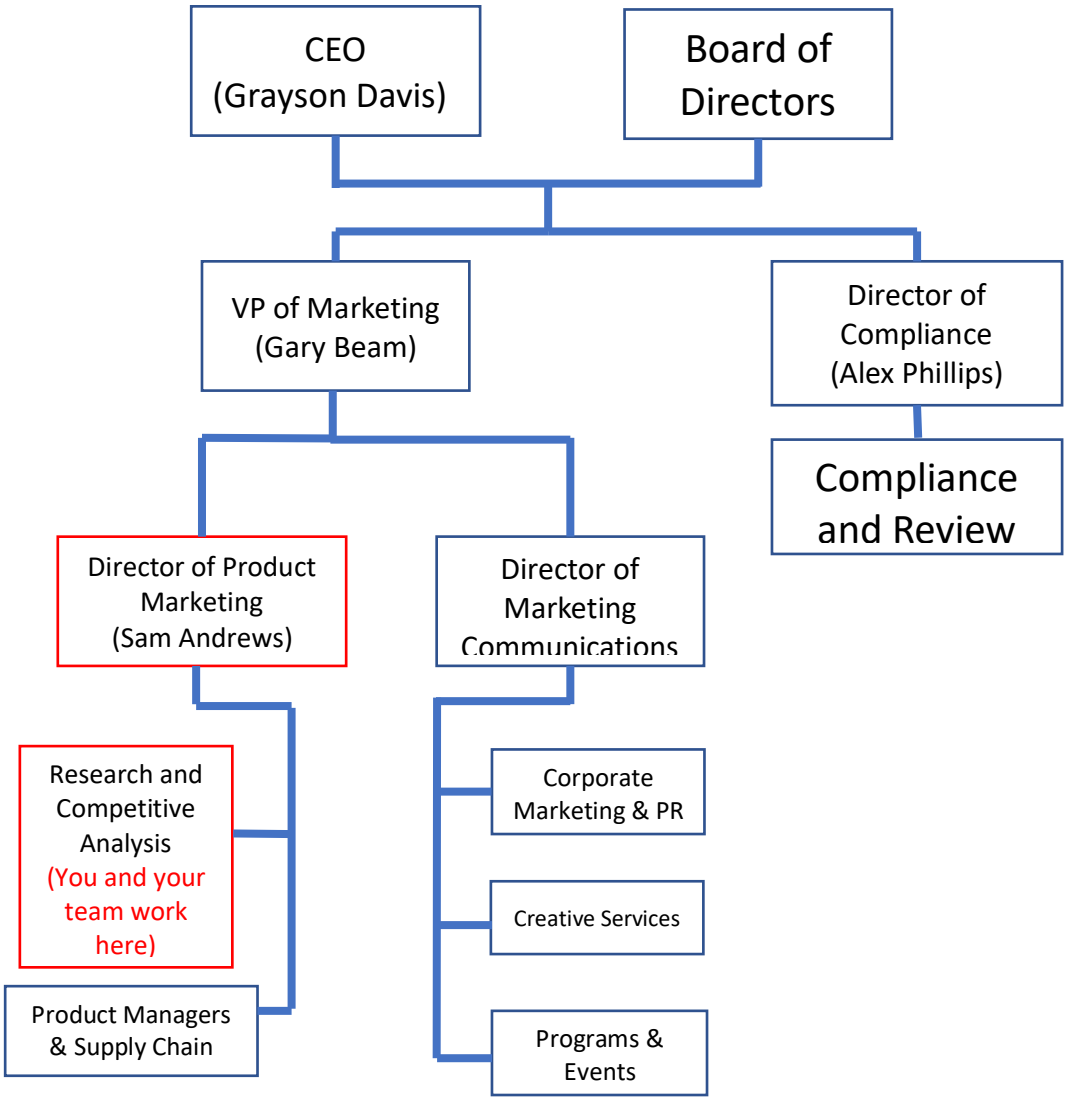
Lack: Along with the CEO, there is an independent board of directors whose main objective is to ensure the success and survival of the organization. Reporting to both the

CEO and the Board of Directors is the Vice President of Marketing, Gary Beam, who provides expertise and insight to the marketing team.

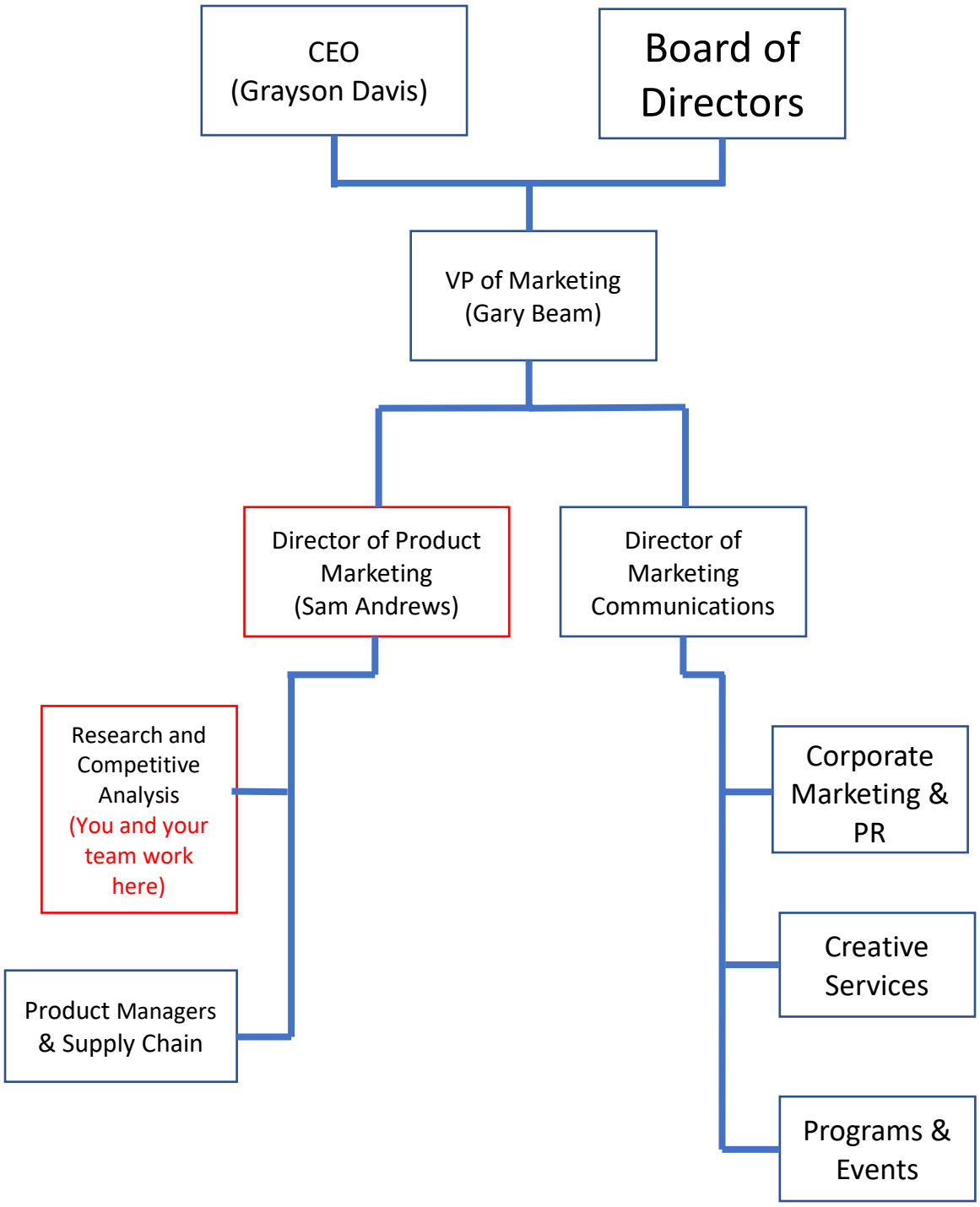
Take a couple of minutes to look at the detailed flow chart listed on the next page.

Organizational Hierarchy

Existence of Checks & Balances



Lack of Checks & Balances



Appendix F: Leader Manipulation

Destructive Leader Manipulation

Organizational Profile

Your job as a team member on the research and competitive analysis team is within the coffee marketing division. This role involves tasks such as developing marketing plans and gathering data on consumers and competitors. In addition, your job involves using this information to prepare and present reports that measure the effectiveness of advertising campaigns. You have been in this position with Innovative Marketing for a little less than a year.

The two main individuals you work with at Innovative Marketing are Chelsea and Sam. Chelsea is in her second year with the company and you have a good working relationship with her. Sam is your boss and the director of product marketing and typically works with your team to develop a marketing strategy before presenting to focus groups for a new product campaign. (INSERT APPROPRIATE MANIPULATION)

Destructive Profile: Since you started at Innovative Marketing Inc., you have heard that Sam isn't the friendliest with other employees or even customers. Although Sam tends to skip over quality control processes, Innovative Marketing Inc., has been more effective since he started, increasing their sales by 25% over the past few years. While this may be true, your co-workers have complained about Sam playing favoritism and looking the other way when certain employees behave in ways that aren't in the best interest of the organization. It has also been said that Sam is often unpredictable and has been known to become loud and assertive in meetings. You learn over time that you have to be careful when Sam is around.

Socialized Profile: Since you started at Innovative Marketing Inc., you have noticed that Sam is friendly and helpful when working with employees and even customers. Sam

works through the chain of command and has been an effective director, increasing the sales of Innovative Marketing Inc. by 25% over the past few years. Your co-workers have shared that Sam is fair and focuses on helping employees see the higher benefit of work for their team rather than personal gain. It has also been said that Sam acts consistently and is always calm and collected during meetings. You learn over time that you can feel calm when Sam is around.

You have a decent salary and commission opportunities thanks to Sam's connections within the industry and although your salary is enough to afford your one-bedroom studio apartment, you would like a bigger place. Besides wanting a bigger place, you are growing desperate for a new car as yours is probably not going to last much longer.

One night after wrapping up some details for a project you've been working on, you receive an email from your boss Sam. In the email, a fairly pressing issue is described in which you are being brought you up to speed. The email reads:

From: Sam Andrews <sandrews@innovative.org>

Subject: Great opportunity

Hi Jordan,

I'm not sure if you heard, but Gary Beam, the VP of Marketing, announced his retirement and after the success of my last marketing campaign I'm confident that I'm going to be his replacement. I just got an email from the higher-ups that we are now running full steam with the COFFEETECH campaign, and I am putting together the team to work on it. The CEO of COFFEETECH is looking to do a quick launch of caffeinated fizzy drinks and lollipops and

wants to present the marketing campaign to focus groups and get the products ready for launch within the next 90 days.

I have been following your work for the last year and you have consistently shown that you are ready to grow in this company. I think this campaign can be your chance to show that you can do this job. I want you to take the lead and Chelsea to assist in moderating the focus groups and presenting the results to the CEO of COFFEETECH as soon as possible. You know that there has been a push to gain new clients and we really need this account to sign with us, so it's important to impress the focus groups and get good feedback with one of the campaigns we developed.

Again, I think this is a really great opportunity for you to show everyone that you are ready to move up in the company. Good luck and I will get back with you soon.

Best,

Sam

Appendix G: Innovative Marketing, Inc. Case Pt. 2

Innovate Marketing, Inc. Case Part 2

After going through two campaigns Sam sent you, you feel certain that one of these is a winner and over the course of the next month you work on recruiting focus group participants. Things look good because the company is hitting all the major points for a great product and currently have 7 different flavors of caffeinated fizzy drinks and a dozen lollipop flavors. There is also great packaging and a couple of popular social media personalities that are ready to partner with COFFEETECH.

As you are going through information about COFFEETECH you see a couple of issues that might be concerning. First, it seems that they use synthetic fertilizers and fungicides to grow their coffee beans. You aren't really sure, but you think it might be bad for the environment and people living in the area. Another concern you have is related to the laborers of the company. Reports are vague, but you know that this is an important issue the focus group may bring up. It turns out that COFFEETECH is not Fairtrade Certified and there are no labor, environmental, or quality standards they are required to follow. This isn't necessarily going to impact the presentation, but you're worried about answering questions if they arise. Day one of focus group research comes and everything goes without a hitch. You and Chelsea spend the next six weeks moderating the focus groups and send all of the information to the rest of your team.

It was close, but you have one week before you present the findings, and task Chelsea with assembling all of the information that you have gathered from the focus groups into one streamlined report. She finishes the report and sends it to you with two days to prepare before meeting with the heads of COFFEETECH. You quickly skim the report, and you aren't quite sure how you feel about the results.

FOCUS GROUPS EXECUTIVE SUMMARY

COFFEETECH is determined for their products to be enjoyable for a diverse set of consumers. With the growing demand for fun and innovative twists on products, COFFEETECH is branching out from a simple coffee house to a line of caffeinated fizzy drinks and lollipops in the hope of dominating a new corner of the market. COFFEETECH will capitalize on locations with close proximity to college campuses, taking advantage of the adventurous populations that tend to gravitate to those areas.

Project

The purpose of this focus group was to test attendees' reactions to the marketing campaign of the new line of products being offered by COFFEETECH. Presentations were developed around maintaining what people have come to love and showcasing new lines of products. Attention was given to the fun and unique tastes of the new products and details about the new locations. To test the merging of the old and new products, the presentation included some traditional products, however much of the presentation was devoted to the new line. Potential flavors of the month were highlighted to showcase the individuality of each fizzy drink and lollipop.

Group parameters

A total of eight focus groups were moderated prior to the launch of COFFEETECH's new products. Across the eight groups were a total of 184 attendees, 99 women ages 18-59, 67 men ages 25-64, 9 non-binary ages 18-36, and 9 that preferred to not disclose their gender. All are coffee and caffeinated beverage drinkers and are interested in new products that may hit the market next year.

Findings

Most of the feedback was related to COFFEETECH straying away from traditional coffee and a feared decline in quality. Additionally, phrases like "they are trying too hard to fit in" and "this is going to make shops busier than they already are" were used.

There were concerns about marketing caffeinated products to be fun because young kids may want to buy them, as well as the origin of the beans and possible chemicals used and consequential concerns about marine life and birds near water. A few more were concerned about labor standards and wanted to make sure children are not picking the beans used for COFFEETECH products.

On a positive note, they loved the taste of the fizzy drinks, and the majority stated the taste was better than any of the energy drinks currently on the market. They also loved the taste of the lollipops. One attendee stated: "I was getting over a sore throat and the lemon-ginger zinger made my throat feel better!". There was high satisfaction about the attention devoted to customer experience and that COFFEETECH is a solid business with locations everywhere you go. Some even used phrases like "COFFEETECH is king". Overall, the significant majority across all eight focus groups love the products and believe they are creative, exciting, and are going to be very popular.

Motivation for buying coffee will continue to be related to keeping lines short, quality of products and taste, and continued variety.

After reading you realize that very few people in the focus groups brought up concerns related to using fertilizers and fungicide or the fact that there are no labor or quality standards they must adhere to. You aren't quite sure what you should do about this. The results are better than you thought they might be, and nobody really seemed to care about the things you thought they would worry about, but you have information that nobody considered. You know that Sam put a lot of trust in you to get this account and you want to prove yourself, but with these results you aren't really sure the best direction to go with your presentation. You then receive the following e-mail from your boss Sam:

> **From:** Sam Andrews <sandrews@innovative.org>
> **Subject: Focus group results**
> Hey Jordan,
>
> I'm just checking in on you and making sure the presentation is going to be ready on schedule. I'm sure the focus groups went well, and they loved the products. The CEO loves this campaign and is ready to launch as planned. Send me a draft of your plan to summarize the results from the focus group first thing in the morning. I'm sure it's great, but I want to give it a once over to make sure this account moves forward. Success on this campaign will really prove to the higher-ups that you're ready to move up in the company! Can't wait to see what you come up with!
>
> Best,
> Sam

This email adds pressure in more ways than one. Not only do you have to decide how you are going to present the focus group results when you aren't quite sure what you want to include, now you have a day less than you had before.

Presence of Checks and Balances: You also remember that you need to send your report to the compliance team and Board of Directors before you present to COFFEETECH.

You take a minute to consider all of this information before deciding how to move forward.

Appendix H: EDM Task

Ethical Decision-Making Task

Now we would like you to think through any problems in this situation, and possible outcomes related to it. Keep in mind the leader and team you're working with. Please respond to the following questions fully and to the best of your ability.

1. What, if anything, do you see as a problem in this situation?
2. List and describe the causes of the problem.
3. Are there any important factors or challenges to consider in this situation?
4. What are some possible outcomes related to the information you present to the CEO of COFFEETECH? List as many as you can think of.
5. What might you consider when deciding how to present the results from the focus groups? What information will you choose to share and why?
6. Explain in detail your marketing plan for COFEETECH.
    a. What was the rationale for your decisions in the marketing plan?

Take a few minutes to read through the focus group report and type the presentation that you will present to your manager Sam and the CEO of COFFEETECH.

Appendix I: Leader Perception

Leader Perception Scale

This measure was created for the purposes of this study, and respondents will be asked to answer nine items regarding their perception of the leader on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree).

Please rate each statement below on much you agree with statements regarding potential qualities of your direct supervisor, Sam Andrews. (1 = strongly disagree; 5 = strongly agree)

1. I perceived my leader as taking advantage of others.
2. I perceived my leader as self-serving.
3. I perceived my leader as wanting to empower others.
4. I perceived my leader as effective.
5. I perceived my leader as serving the best interests of the group.
6. I perceived my leader as impulsively aggressive.
7. I perceived my leader as self-controlled.
8. I perceived my leader as having the best interest of the organization in mind.
9. I perceived my leader as disregarding towards the feelings of others.

Appendix J: Checks & Balances Manipulation Check

Checks and Balances Manipulation Check

This measure was created for the purposes of this study and respondents will be asked to answer four items regarding their perception of the organizational checks and balances on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree).

1. I perceived Innovative Marketing Inc. as having an effective system of checks and balances in place
2. I perceived Innovative Marketing Inc. as lacking oversight of my manager and department.
3. I perceived Innovative Marketing Inc. as having balanced power
4. I perceived Innovative Marketing Inc. as having a CEO and Board of Directors
5. I perceived Innovative Marketing Inc. as lacking a system of audits and compliance checks