



LEADERS' IMMORALITY-ENCOURAGEMENT:  
WHEN DO SUBORDINATES SUCCUMB?

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A Thesis

Presented to

The Faculty of the Department

of Psychology

University of Houston

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In Partial Fulfillment

Of the Requirements for the Degree of

Master of Arts

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By

Blaine A. Lewis

May 2019

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### ABSTRACT

Organizational researchers have recently begun to investigate antecedents of unethical pro-organizational behaviors, or unethical behaviors intended to help the organization or its members while violating societal norms or laws (e.g., inflating earnings; Umphress & Bingham, 2011). However, this nascent research field has failed to investigate leaders' pressures for subordinates to engage in unethical pro-organizational behaviors. The current laboratory experiment investigated a possible important antecedent of unethical pro-organizational behaviors termed *leaders' immorality-encouragement* (LIE), involving a subordinate's perception of his or her supervisor urging immoral behavior on behalf of the organization. Using a factorial design with 304 undergraduates, I examined the effects of LIE on cheating behaviors that support a virtual team, including the moderators, leader-member exchange, leader-leader exchange, and teammates' moral identity symbolization. I predicted that (a) LIE would lead to more unethical pro-organizational behaviors, (b) leader-member exchange and (c) leader-leader exchange would strengthen the relationship, and (d) teammates' moral identity symbolization would weaken the relationship. Hierarchical logistic regression analyses supported the hypothesized relationships for LIE and leader-member exchange but not the other moderating variables. Supplementary analyses revealed that the incremental positive influence of leader-member exchange on LIE for unethical pro-organizational behaviors was stronger when the lab manager exhibited a close relationship with the team leader (i.e., high leader-leader exchange). These findings yield new insights into the contextual mechanisms that can lead to unethical pro-organizational behaviors.

*Keywords:* leaders' immorality-encouragement, unethical pro-organizational behavior, leader-member exchange, leader-leader exchange, teammates' moral identity symbolization

**TABLE OF CONTENTS**

Introduction.....	1
Unethical Pro-Organizational Behavior .....	9
Leaders' Immorality-Encouragement.....	11
Leader-Member Exchange.....	15
Leader-Leader Exchange .....	18
Teammates' Moral Identity Symbolization .....	20
Method.....	24
Participants .....	24
Design.....	24
Procedure .....	25
The synergize! task.....	25
Data Analysis Strategy .....	30
Results .....	32
Manipulation Checks.....	32
Other Post-Experiment Measures .....	34
Tests of Hypotheses.....	34
Supplementary Analyses .....	36
Discussion.....	39
Limitations and Future Directions .....	43
Practical Implications.....	45
Conclusion .....	47
References.....	49
Tables.....	60
Figures .....	62
Appendix A.....	67

### Leaders' Immorality-Encouragement:

#### When do Subordinates Succumb?

Organizations typically craft unique mission-and-vision statements to elucidate the various products and services they provide to consumers, objectives and goals for meeting stakeholder demands, and organizational identities that set themselves apart from the competition (Pearce & David, 1987). Despite these ambitious organizational aims, employees may engage in voluntary behaviors that harm the organization itself or other people at work, such as coworkers or customers. Activities that go against organizations' legitimate business interests are called counterproductive work behaviors (CWBs), and examples include interpersonal aggression, sabotage, and theft (Sackett, Berry, Wiemann, & Laczko, 2006). Although difficult to estimate, given its covert nature, the cost of theft alone may amount to \$40 billion annually, with about 70% of all theft committed by employees (Wimbush & Dalton, 1997). Accordingly, organizational scholars have made extensive strides into investigating some of the causes of CWBs, such as low cognitive ability (Dilchert, Ones, Davis, & Rostow, 2007), agreeableness, conscientiousness, and job satisfaction (Mount, Ilies, & Johnson, 2006), and high interpersonal conflict and organizational constraints (Zhou, Meier, & Spector, 2014).

Many of these CWBs may also be conceived of as unethical behaviors, which are behaviors that conflict with approved societal moral norms (Treviño, Weaver, & Reynolds, 2006). Behavioral ethics researchers have traditionally assumed that unethical acts directed toward the organization were rooted primarily in self-interest (Treviño, den Nieuwenboer, & Kish-Gephart, 2014). However, recent research has begun to question this convention by showing that employees may also engage in unethical behaviors that are intended to serve the

organization's best interests, known as unethical pro-organizational behaviors (UPB; Umphress & Bingham, 2011). For example, employees may destroy incriminating files, falsify accounting records, cover up failed project endeavors, or even sell an expired product to a customer as a means to help maintain or improve an organization's reputation. While UPBs may satisfy organizational needs in the short-term (e.g., developing stakeholder investment and morale or making a sale with a customer), potential long-term negative consequences of these behaviors are likely to damage the organization's reputation (Umphress & Bingham, 2011). Therefore, considering the extensive costs to various stakeholders and society as a whole, further investigation into the antecedents of UPBs is well warranted.

Two initial field studies by Umphress, Bingham, and Mitchell (2010) demonstrated that among employees with greater reciprocity beliefs, those who strongly identified with their organizations were more willing to engage and revealed actually engaging in greater amounts of UPBs. When an organization becomes a salient feature of an employee's social identity, individuals with greater organizational identification may bend ethical principles in order to improve their organization's reputation and success if they also believe their organizations may reciprocate with beneficial treatment in the future (Umphress et al., 2010). Subsequent researchers have explored the various external influences that can affect an employee's willingness to perform UPBs. For example, Thau, Derfler-Rozin, Pitesa, Mitchell, and Pillutla (2015) found that individuals who feared social exclusion were more likely to engage in pro-group unethical behaviors, particularly if they also had a high need for inclusion. Similarly, industry and intergroup competition have also been shown to increase the positive effects of organizational identification and loyalty on UPBs, respectively (Chen,



Chen, & Sheldon, 2016; Hildreth, Gino, & Bazerman, 2016). These findings are consistent with past social psychological research indicating that people have a fundamental need for belongingness (Baumeister & Leary, 1995) and self-esteem can function as a “sociometer” to detect potential social exclusion from a group (Leary, Tambor, Terdal, & Downs, 1995). Thus, employees may engage in UPBs as a means to improve conditions for their organizations and garner acceptance from their peers.

Leadership styles may also play a considerable role in employees' UPB engagement. Transformational leadership, composed of idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, has been shown to promote a greater willingness to engage in UPBs, and individuals' organizational identification mediated this relationship (Effelsberg, Solga, & Gurt, 2014). Furthermore, Miao, Newman, Yu, and Xu (2013) observed a curvilinear relationship between ethical leadership and UPBs, showing that moderate perceptions of ethical leadership increased employees' willingness to engage in UPBs. This phenomenon, according to the authors, could be the consequence of moderately ethical leaders communicating inconsistent or ambiguous messages regarding the importance of ethicality in workplace decision-making and behaviors. While the preliminary evidence indicates that leaders can influence subordinates' UPBs, these studies do not consider subordinates' perceptions of pressure to commit UPBs by their leaders.

Demands on subordinates to engage in UPBs are often sufficiently powerful enough to result in many infamous corporate scandals where supervisors and upper management consistently know about and oftentimes even encourage employee UPBs. For example, at HealthSouth, the CEO instructed senior executives and accountants to inflate earnings and use deceptive accounting practices to meet investor expectations (Securities and Exchange

Commission, 2003). For a total of seven years, negative trends were covered up by organizational members to protect the company's image under the leader's direction. In the case of the recent Wells Fargo scandal, employees were discovered to be illegally opening checking accounts and transferring customers' money to them, as well as ordering new credit cards without customers' knowledge or permission (Verschoor, 2016). Before the scandal's uncovering, Wells Fargo's stock prices were on the rise due to these "successful" upselling and cross-selling tactics. The high-performance demands set by the CEO at Wells Fargo perceivably contributed to employees' UPBs. Similarly, with Volkswagen, the CEO established a ten-year goal to be the largest car manufacturer in the world and subsequently achieved that goal in 2015 (Rhodes, 2016). However, as a result of the vehicle emissions scandal, the CEO resigned due to the threat of a criminal investigation, even though experts had previously lauded Volkswagen for its superior corporate social responsibility just a few years before this revelation.

Therefore, it is plausible that subordinates learn to commit UPBs through interpersonal interactions with their leaders. Leaders' immorality-encouragement, or LIE (Mesdaghinia, Eisenberger, & Shapiro, 2016), concerns an employee's perception of the extent to which his or her supervisor urges immoral behavior on behalf of the organization. The principles of social cognitive theory (Bandura, 1986) and French and Raven's (1959) bases of social power provide the theoretical foundations for the LIE conceptualization. Leaders may select loyal confidants who are most likely to fulfill their unethical requests and garner the support of their peers, especially in times of immense competition (e.g., Hildreth et al., 2016). Targeting specific, respected individuals may help prevent unethical inducements from appearing sanctioned by the organization and protect leaders from

culpability. Leaders are influential, credible role models for subordinates due to their elevated position in the managerial hierarchy; this signals their professional success within the organization. Subordinates may then model their leaders' explicit or implicit communications since leaders' expectations can affect the perceived appropriateness of engaging in specific behaviors (Bandura, 1986).

Furthermore, subordinates may anticipate positive reinforcement for complying with leaders' unethical requests due to leaders' reward power (French & Raven, 1959), such as a pay raise or promotion. Other reinforcement could include a more positive social exchange relationship with the leader or personal satisfaction with helping advance the organization's interests (at least in the short-term). An employee could also feel pressured to comply with UPB requests due to the coercive power of the leader (e.g., undesirable job assignments or discharge) or internalization of the leader's legitimate power based on the leader's status within the organization (French & Raven, 1959). In support of these arguments, Mesdaghinia and colleagues (2016) found that when employees perceived their leaders were encouraging immoral behaviors on behalf of the organization, they were more willing to engage in UPBs.

Although perceptions of LIE may increase the likelihood of employees' decisions to engage in UPBs, contextual factors may also play a role. Mesdaghinia et al. (2016) found that this positive relationship depended on the leader-member exchange (LMX), such that the relationship was stronger at higher levels of leader-member exchange. Thus, perceptions of LIE may influence employees' decisions to engage in UPBs if they perceive themselves to be in a high-quality social exchange relationship with their supervisors (i.e., high LMX; Dansereau, Graen, & Haga, 1975). Long-term mutual trust and exchanges of favorable treatment characterize social exchange relationships (Blau, 1964), and employees who are

part of the “in-group” with their leader may be more likely to engage in UPBs at their supervisor’s request. This phenomenon could be due to employees’ desires to maintain a positive relationship with their supervisors since well-connected, hardworking employees typically receive the most personalized consideration, latitude in decision making, and feedback from their supervisors (Graen & Uhl-Bien, 1995). Leaders may also be more likely to encourage high LMX employees to engage in UPBs due to their comfort and perceived similarity with one another (Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012), and employees may fulfill these requests as a felt obligation to reciprocate their leaders’ favorable treatment. Furthermore, complying may also help high LMX employees avoid negative consequences that could arise from failing to perform UPBs or whistleblowing (e.g., retaliatory reassignments or termination).

Likewise, if employees perceive their leader to be in a high-quality upward social exchange relationship with his or her supervisor (termed leader-leader exchange, LLX; Tangirala, Green, & Ramanujam, 2007), this may also further enhance the positive relationship between LIE and UPB. Supervisors function as “linking pins” in the organization by providing both social and material resources from the organization to employees (Herdman, Yang, & Arthur, 2014). Supervisors with a favorable upward social exchange relationship have greater organizational status, can acquire scarce resources more effectively, and more fully embody the characteristics organizations’ value compared to those on the periphery of upper managements’ radar (Eisenberger et al., 2010; Venkataramani, Green, & Schleicher, 2010). UPBs may be a strategic impression management approach in which employees attempt to align themselves with a prominent organizational leader who encourages immoral actions on behalf of the organization.

However, leaders are not the only interpersonal sources that may influence an employee's decision to engage in UPBs; coworkers may also play a formative role. Mesdaghinia et al. (2016) found that the positive relationship between LIE and employees' UPBs depended on coworkers' moral ownership, which is the extent to which individuals feel responsible for the ethicality of their own actions and the actions of others in their environment (Hannah & Avolio, 2010). At higher levels of coworkers' moral ownership, the relationship between LIE and UPB was weaker. LIE may create an uncomfortable situation for employees, as they are asked to participate in behaviors that help the organization in the short-term but are considered unethical by societal standards. In the process of debating whether to engage in potentially immoral actions, employees may look to their coworkers to aid in their ethical decision making. Specifically, the moral identity symbolization (MIS) of teammates, or the degree to which individuals publicly display their moral identity (Shao, Aquino, & Freeman, 2008), may weaken the relationship between LIE and UPB. Prosocial organizational memberships (e.g., volunteering with a nonprofit organization) or religious accessories worn (e.g., a crucifix) can exemplify teammates' moral identity symbolization. Observing these morality-laden symbols can activate a moral awareness of the situation, which has been shown to decrease the likelihood of engaging in unethical behaviors (Desai & Kouchaki, 2017). If employees see that their coworkers are moralistic, prosocial individuals, morality schemas should be initiated when exposed to LIE, and this may help employees overcome leaders' coercive pressures to engage in UPBs.

In this paper, I will first review the literature on UPBs, and then I will develop the theoretical foundation of LIE and how it may be related to UPBs. Finally, I will discuss how each of the moderators, LMX, LLX, and MIS, may strengthen or weaken this hypothesized

positive relationship. Through the use of a virtual team laboratory experiment, I collected empirical evidence to explore the nature of the relationship between LIE and UPB, as well as the contextual variables that are predicted to moderate this relationship.

This study has several theoretical and practical implications for research on unethical behaviors in the workplace. Given the potential economic and social ramifications of UPBs, it is critical to investigate the antecedents that lead to them. Past research has failed to explore the particular social pressure exerted by a leader to engage in UPBs, despite the recent multitude of anecdotal white-collar crimes in which this factor appeared to play a pivotal role (e.g., Enron, Arthur Andersen, HealthSouth, Wells Fargo, Volkswagen, etc.). Thus, the primary purpose of this paper is to examine a new leadership construct, LIE, which may be an essential determinant of subordinates' UPBs. Secondly, I investigated how several contextual variables may affect the relationship between LIE and UPB. Although a strong LMX relationship can lead to positive organizational outcomes (e.g., increased job performance and organizational citizenship behaviors; Dulebohn et al., 2012), it may also lead to unintended consequences of increasing UPBs when leaders encourage turning a blind eye to ethicality. Likewise, perceptions of a positive LMX relationship may also increase the likelihood an employee will feel compelled to engage in UPBs in order to preserve a valuable relationship with a high-status supervisor. However, the MIS of team members may empower subordinates to resist their leaders' pressures to commit UPBs by bringing the ethicality of the situation to their awareness. The findings from this research may aid practitioners who wish to prevent UPBs from negatively impacting their organizations by considering factors that may diminish the hypothesized positive relationship between LIE and UPB.

### **Unethical Pro-Organizational Behavior**

Employees at all levels of the organizational hierarchy may engage in various unethical behaviors, such as “cooking the books,” withholding negative information from the public, implementing techniques to “cheat the system” during a regulatory inspection, or destroying incriminating files. These behaviors are unethical because they violate societal norms, even if they align with organizational norms (Umphress & Bingham, 2011). They are also considered pro-organizational (i.e., UPB) since they are intended to benefit the organization, which may or may not bestow any tangible benefits directly to the individual (Umphress & Bingham, 2011). Gino, Ayal, and Ariely (2013) provided support for these types of behaviors by demonstrating in three separate experiments that individuals were more likely to cheat when others could benefit and felt more morally justified after doing so than individuals who cheated for personal gain. However, the unethical nature of these pro-organizational behaviors may lead to detrimental long-term consequences that harm organizations when the truth is exposed.

Umphress et al. (2010) introduced the UPB construct upon observing that behavioral ethics scholars often neglected to investigate unethical behaviors that were intended to benefit the organization, at least in the short-term. The authors reported two prominent types of UPBs exhibited across a myriad of organizations: acts of commission (e.g., misrepresenting the success of a failed venture) or omission (e.g., remaining silent about illegal activity; Umphress et al., 2010). Through two field studies, Umphress et al. (2010) observed an interactive effect between organizational identification and positive reciprocity beliefs (i.e., the extent to which individuals support the importance of reciprocity in social exchanges) on UPBs, such that the positive relationship between organizational identification

and UPB became stronger at higher levels of positive reciprocity beliefs. This research suggested that employees who strongly identify with their organization, see its successes and failures as their own (Mael & Ashforth, 1992), and reliably exhibit reciprocity in their personal and professional relationships (Eisenberger, Lynch, Aselage, & Rohdieck, 2004) were more likely to commit UPBs.

Subsequent research has primarily concentrated on exploring possible dispositional antecedents and contextual determinants of UPBs. One dispositional antecedent shown to predict a willingness to engage in UPBs was Machiavellianism, and in particular, its amoral manipulation facet (Castille, Buckner, & Thoroughgood, 2018). Individuals high in amoral manipulation tend to neglect ethical considerations when seeking self-serving outcomes and thus viewed helping the organization unethically as a means for personal gain (i.e., if the organization is doing well, individuals can profit from its successes indirectly). However, the majority of research has focused on situational factors. Hildreth et al. (2016) found that, although loyalty to a group tended to activate moralistic traits associated with less cheating, inter-group competition was related to unethical behaviors to help protect the group by whatever means necessary. Similarly, Chen et al. (2016) observed that organizational identification was related to UPB through moral disengagement and that this mediated relationship was stronger when individuals perceived greater inter-organizational competition. Fears of social exclusion have also been shown to cause individuals to engage in pro-group unethical behaviors (Thau et al., 2015).

Only two studies to date have focused on leadership theories related to UPBs. First, Effelsberg et al. (2014) found that perceptions of transformational leadership could lead to UPBs mediated through organizational identification. Instilling inspirational motivation,



transformational leaders communicate an appealing vision to subordinates that cultivates their identification with the organization and makes them more willing to engage in UPBs. Furthermore, the greater the extent to which subordinates possessed dispositions toward unethical behaviors (e.g., Machiavellianism), this positive relationship became stronger. UPBs also correlated with ethical leadership, which is the extent to which a leader personally demonstrates and communicates appropriate ethical behaviors in the workplace (Brown, Treviño, & Harrison, 2005; Miao et al., 2013). The relationship between ethical leadership and UPB was observed to be curvilinear, meaning that moderate levels of ethical leadership led to a greater willingness to engage in UPBs, and this relationship became stronger with greater levels of supervisor identification. According to Miao and colleagues (2013), moderately ethical leaders may send mixed signals about the importance of ethics in the workplace, such that they communicate the importance of ethics in a platitudinous manner, yet their actions may be inconsistent with the messages they espouse. Subordinates may find UPBs as normatively acceptable behaviors given their leader's equivocality, especially if they admire their supervisor (Miao et al., 2013). However, neither of these studies account for leaders who actively encourage subordinates to engage in UPBs, as low transformational leadership and ethical leadership are ethically neutral.

### **Leaders' Immorality-Encouragement**

Corporate and governmental scandals have been rampant throughout history and across the world, yet this phenomenon does not appear to be diminishing in magnitude. In fact, 40 of some of the most recent top *Fortune 100* companies have been guilty of largescale unethical behaviors from 1999-2005 (Clement, 2006). Half of these egregious revelations involved accounting fraud, which is when a company falsifies financial reports to appear

more profitable. For example, over four years, WorldCom falsely inflated its earnings and reduced its expenses by \$11 billion, making this the largest accounting fraud in history (Clement, 2006). A common theme of these corporate scandals is that they tend to involve top management and are orchestrated throughout the organization, suggesting they are not merely isolated events but are consistent unethical practices over a substantial period of time (Rate & Sternberg, 2007). In the case of WorldCom, the former CEO, Bernard Ebbers, was found guilty of securities fraud, dishonest reporting with the Securities and Exchange Commission, and conspiring to commit fraud in 2005 (Clement, 2006).

Given the widespread prevalence of these coordinated corporate scandals, Mesdaghinia and colleagues (2016) proposed leaders' immorality-encouragement (LIE) to help explain how leaders transmit their fraudulent intentions. LIE is a leadership ideology which refers to an employee's perception concerning the extent to which his or her supervisor urges immoral behavior on behalf of the organization. Organizational leaders may have various motivations for encouraging UPBs among subordinates, ranging from pressures on leaders to increase productivity to personal desires for wealth and power. Through various language framing techniques, leaders may even portray UPBs as morally acceptable behaviors given a competitive job market in order to secure subordinates' compliance. Thus, it is plausible lower-level supervisors may learn the unethical "rules of the game" from upper management through a trickle-down leadership process (Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009). Not all employees have an equal opportunity to engage in certain types of UPBs (e.g., an accountant vs. a custodian), though, so it is not expected that leaders encourage each subordinate to behave unethically to the same degree. Thus, LIE is an individual-level construct and has been distinguished from ethical leadership, as evidenced

by exploratory factor analysis (Brown et al., 2005; Mesdaghinia et al., 2016). Low ethical leadership reflects a leader who treats subordinates inconsiderately due to a lack of personal ethics and does not consistently promote ethics in decision making. Instead, LIE involves an employee's perception of his or her supervisor's active promotion of UPBs.

Both social cognitive processes (Bandura, 1986) and power influences (French & Raven, 1959) may contribute to LIE. Bandura's (1986) social cognitive theory posits that individuals learn social norms by observing and modeling the behavior of others. If observers see the individual as credible and his or her actions receive reinforcement (e.g., praise and promotion), they will model these behaviors in the hopes of achieving vicarious reinforcement. Upon repeated exposure, these behaviors will become internalized as worthwhile, appropriate courses of action. Supervisors' attitudes and the verbal communications delineate the expected norms for a particular employee, and due to supervisors' elevated organizational status, subordinates may wish to emulate their desired behaviors. If a supervisor engages in LIE, subordinates may internalize UPBs as acceptable behaviors while lessening the ethical dilemmas associated with them through a cognitive dissonance process (Festinger & Carlsmith, 1959; Umphress & Bingham, 2011).

Furthermore, the euphemistic language managers use to describe UPBs may also lead to moral disengagement (Moore & Gino, 2013). For example, leaders may designate the act of using profit from previous years to improve balance sheets during less profitable years as "cookie jar reserves" (The Economist online, 2010). Socialization tactics by leaders can also relay information about organizational norms of unethical behavior (Moore & Gino, 2013). At the investment bank, Salomon Brothers, subordinates were referred to as "jammers" if they did whatever it took to minimize loss from stocks or "geeks" if they proceeded in an

ethical manner (Lewis, 2010). Relatedly, leaders may demand objectively challenging production goals with only a concern for the end product, not the process leading up to it (Moore & Gino, 2013).

In addition to social cognitive processes, LIE could influence subordinates because employees may succumb to the power that dishonest supervisors hold over them. According to French and Raven's (1959) bases of social power theory, there are multiple dimensions of power that influence subordinates' beliefs and actions. Leaders are in positions of having legitimate power, which is inherent in their elevated job title, as well as expert power, such as specialized knowledge and expertise. Subordinates may ascribe them a halo of achievement and desire to follow in their leaders' footsteps to emulate their success. Leaders' reward and coercive powers may also cause subordinates to engage in their leaders' desired behaviors in order to receive praise, bonuses, and job security, as well as to avoid negative repercussions of going against their leaders' wishes, such as termination. If a supervisor encourages a subordinate to exaggerate the importance of the group's or organization's accomplishments while silencing negative information (i.e., LIE), subordinates may conform because of the power differential, even if doing so violates their consciences. Subordinates may also feel compelled to take unethical avenues to accomplish their tasks since organizational rewards and punishments can act as powerful behavioral constraints, especially if the organization does not have an enduring climate of honesty (Robertson & Rymon, 2001). Thus, I expect perceptions of LIE to be positively related to participants' UPBs.

*Hypothesis 1.* LIE is positively related to UPBs.

### **Leader-Member Exchange**

Although LIE should cause participants to engage in more UPBs on average than participants in the low LIE condition, a high-quality exchange relationship between the leader and participant may enhance this relationship, known as leader-member exchange. LMX theory (Dansereau et al., 1975; Graen & Uhl-Bien, 1995) originated from a social exchange perspective, which posits that individuals are self-interested yet required to be interdependent to thrive (Blau, 1964). Consequently, employees attempt to maximize benefits and minimize costs in their relationships with organizational representatives, all while continually considering alternative exchange partners, such as other organizations with which to work. In these social exchange relationships, goods, services, and psychological resources are traded (Blau, 1964). As one partner bestows favorable treatment to the other, the recipient experiences a felt obligation to repay the favorable treatment based on the norm of reciprocity and thus reciprocates accordingly (Gouldner, 1960). The key features in these relationships are that they are long-term, non-contractual, and based on mutual trust (Blau, 1964).

LMX, an extension of social exchange ideology, emphasizes the dyadic exchange relationship between a leader and subordinate (Dansereau et al., 1975). Leaders and subordinates are mutually dependent on one another within an organization: subordinates must effectively accomplish the demands of their job, while leaders provide guidance, feedback, and training opportunities to ensure subordinates are performing up to the organization's standards (Cropanzano & Mitchell, 2005). During the initial work relationship formation, leaders and subordinates evaluate each other on a variety of characteristics to determine how the other party views them and their relative worth. Subordinates pay close

attention to their leaders' behaviors that may indicate a positive valuation by them, such as their leaders' contingent reward behavior and expectations of the subordinate's success (Dulebohn et al., 2012). These behaviors demonstrate that the leader recognizes followers for their work, provides appropriate feedback and rewards, and is willing to assign them to challenging tasks for further professional development.

Leaders, on the other hand, predominately focus on their subordinates' knowledge, skills, abilities, and other dispositional characteristics, such as their personality (Dulebohn et al., 2012). For example, subordinates who are conscientious (e.g., achievement-focused and reliable), agreeable (e.g., kind and helpful), exhibit positive affectivity (e.g., enthusiastic and optimistic), and possess a diverse job-related skillset may be deemed instrumental for the leader's and organization's success. Both leaders and subordinates alike also value similarity, mutual liking, and perceived trust in one another. These qualities reduce the social distance between parties and allow for the development of a stronger interpersonal connection based on mutual caring and the exchange of valued resources (Liviatan, Trope, & Liberman, 2008).

However, due to leaders' limited supply of resources, leaders must allocate their time and energy as pragmatically as possible to ensure effective organizational functioning (Dansereau et al., 1975). Leaders, therefore, distinguish between subordinates by developing differential relationship strengths with each of them. Some subordinates will gain membership into the "cadre," or the in-group, of the work team. These subordinates are treated with personal consideration and allowed to participate in decision making in exchange for their continued hard work (Settoon, Bennett, & Liden, 1996). High loyalty and affective commitment between partners characterize high LMX relationships (Bauer & Green, 1996). Less desirable social exchange partners will be treated as "hired hands," or

members of the out-group (Dansereau et al., 1975). Low LMX relationships are thus more economic-based than high LMX relationships (i.e., based on a formal, balanced agreement of the exchange of resources).

Past LMX research has traditionally focused on the numerous positive outcomes of a high-quality LMX relationship, such as enhanced job satisfaction, organizational commitment, job performance, organizational citizenship behaviors, and fewer psychological strains and turnover intentions (Dulebohn et al., 2012; Gerstner & Day, 1997). However, it is possible that high-quality LMX may also have an associated dark side. The benefits of being a member of the in-group are plentiful: greater personalized attention, feedback, access to information, desirable work assignments, socioemotional support, and so on (Erdogan & Enders, 2007). In order to maintain or even expand these favorable treatments, subordinates with a high-quality LMX relationship must continue to prove their loyalty and trustworthiness to their leaders (Bauer & Green, 1996). Should a leader request unethical behavior from a subordinate in a high-quality LMX relationship, the subordinate may be more willing to comply in order to remain in good standing. There are also more significant consequences for disobedience or whistleblowing for subordinates in high-quality LMX relationships: employees may fear that their relatively stable positive relationship with their leader could become jeopardized, thus causing them to lose their superior treatment or even be terminated due to their "betrayal." Therefore, LMX may affect the likelihood of subordinates doing "whatever it takes" in order to ensure the consistent favorable treatment from their supervisors.

*Hypothesis 2. LIE is more strongly related to UPB when LMX is high.*

### **Leader-Leader Exchange**

Despite LMX's extensive theoretical development since its original conceptualization, some organizational scholars have expressed concerns about its limitations. For example, Hogg et al. (2005) indicated that one of LMX's major flaws is that it fails to consider contextual nuances beyond the dyadic relationship between the supervisor and subordinate. Dyadic interpersonal workplace relationships do not occur in static isolation but are affected by the existence of other dynamic social networks, such as the upward exchange relationship between one's immediate leader and his or her supervisor, termed leader-leader exchange (LLX; Tangirala et al., 2007). Perceptions of the quality of this upward exchange relationship have implications for subordinates' beliefs, attitudes, and behaviors at work.

As relayed in the previous subsection on LMX, leaders have a limited amount of workplace resources (e.g., time, energy, and training opportunities), so they may distribute these resources unevenly depending on the quality of their social exchange relationships. However, the overall *quantity* of resources can differ between leaders based on their upward exchange relationships with their supervisors (Sluss, Klimchak, & Holmes, 2008). Leaders in high-quality LLX relationships acquire a variety of perks. For example, high-quality LLX leaders have been argued to be more autonomous, allocated more scarce resources, have elevated organizational status and publicized achievements, receive generous monetary bonuses, and can cut through red tape more effortlessly, all of which "trickle down" to benefit their subordinates (Herdman et al., 2014; Sluss et al., 2008; Tangirala et al., 2007; Venkataramani et al., 2010). Low-quality LLX leaders, on the other hand, tend to receive



only the economic and material resources guaranteed by their employment contracts (Zhou, Wang, Chen, & Shi, 2012).

Subordinates observe the quality and outcomes of this upward social exchange relationship, and these observations have been shown to influence perceptions of their supervisors' statuses within the organization (Venkataramani et al., 2010). Subordinates view high LLX leaders as "linking pins" between them and the organization, and due to their elevated organizational status, any of their supportive or punitive measures may be attributed to the organization's valuation of the employee (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002; Tangirala et al., 2007). High LLX leaders' decision making and reward power thus may carry more authority and legitimacy than that of low LLX leaders since high LLX leaders can better represent and empower their subordinates (Zhou et al., 2012). From an impression management perspective, subordinates who align themselves with high LLX leaders can also profit from their organizational status, which may help them likewise climb the corporate ladder (Venkataramani et al., 2010). In other words, subordinates evaluate, trust, and reciprocate to the extent to which their leaders are perceived to be able to uphold their promises and act in their subordinates' best interests, of which LLX may be a vital signaling factor.

While sparse, most research has focused on LLX as a moderator or antecedent to subordinates' organizational outcomes. Tangirala et al. (2007) found from a survey of nurses that LLX moderated the relationship between LMX and various attitudinal variables, such as organizational identification and perceived organizational support; these relationships were stronger at higher levels of LLX. Nurses who perceived high-quality LLX relationships were more likely to reciprocate back to the organization and its patients due to their leaders'

elevated in-group status. Venkataramani et al. (2010) explored LLX as an antecedent of the leaders' perceived status in the organization, which led to greater LMX and attitudinal outcomes. Thus, leaders with higher-quality LLX relationships tended to have better LMX relationships, on average, and could empower individuals and teams to feel self-efficacious (Zhou et al., 2012). LLX has also been shown to strengthen the positive relationship between LMX and upward voice (i.e., the voluntary expression of work-related suggestions to one's leader; Liu, Tangirala, & Ramanujam, 2013), as well as the relationship between empowering leadership and individual psychological empowerment (Lorinkova & Perry, 2017).

Similar to LMX, the favorable outcomes associated with a strong LLX relationship may also lead to "dark" consequences. Subordinates who perceive their leaders to be in high-quality LLX relationships may wish to associate themselves with these leaders in order to acquire greater organizational support. High LLX leaders are instrumental in getting subordinates promotions, monetary bonuses, and publicizing their achievements (Tangirala et al., 2007; Venkataramani et al., 2010) since they are exceedingly respected within the organization. The benefits one can accrue from remaining in good standing with a high LLX leader, such as removed bureaucratic restraints and freedom from other organizational agents' scrutiny, can result in psychological empowerment and improved self-esteem (Lorinkova & Perry, 2017; Zhou et al., 2012). These material resources and favorable psychological outcomes of LLX may foster increased readiness to engage in UPBs at their leaders' requests.

*Hypothesis 3. LIE is more strongly related to UPB when LLX is high.*

### **Teammates' Moral Identity Symbolization**

Leaders are not the only interpersonal influences on subordinates' engagement in unethical behaviors for the organization's benefit. With organizations increasingly

implementing team-based work strategies (Gordon, 1992), coworkers may have a considerable impact on an individual's ethical decision making. In particular, subordinates' perceptions that their teammates are highly moralistic may curtail the influence of LIE.

Behavioral ethics scholars have recently focused on the impact of moral identity on ethical decision making. Stemming from a social cognitive perspective, moral identity is a self-schema composed of moral values, goals, and behavioral scripts, and the degree to which morality is essential to one's self-concept (Aquino & Reed, 2002; Shao et al., 2008; Skarlicki, Van Jaarsveld, & Walker, 2008). As moral knowledge structures become activated during an ethical situation, other interconnected nodes in the schematic network are accessed, which influence moral actions. For example, thinking about a moralistic archetype (e.g., Mahatma Gandhi) activates one's moral self-concept, and this makes specific behavioral scripts (e.g., assisting a stranger in need) more likely to occur (Shao et al., 2008). Moral identity has been shown to increase donations to out-group members such as UNICEF (Reed & Aquino, 2003) and decrease antisocial behaviors among U.K. soccer players (e.g., attempting to injure an opponent; Sage, Kavussanu, & Duda, 2006).

Moral identity is composed of two dimensions, a private and public moral self, known as moral identity internalization and symbolization, respectively (Aquino & Reed, 2002). Moral identity internalization reflects the extent to which a person values and incorporates morality-related characteristics into his or her self-concept (Skarlicki et al., 2008). Individuals with a high moral identity internalization are more likely to forgive individuals who harm them, less likely to seek revenge, and empathize with the welfare of others more. However, because moral identity internalization is a personal identity, observers may be largely unaware of its self-importance. Moral identity symbolization (MIS), or the

extent to which individuals display their moral identities through their behaviors (e.g., active membership in a prosocial organization), are more detectable and may thus have a stronger influence on observers.

Furthermore, the two dimensions of moral identity do not have to coincide with one another: one may engage in prosocial behaviors for public recognition (i.e., high symbolization) but not genuinely care about helping others in need (i.e., low internalization; Winterich, Aquino, Mittal, & Swartz, 2013). Skarlicki et al. (2008) disentangled the two dimensions by demonstrating that employees high in MIS were more likely to sabotage customers upon perceiving interpersonal injustice than individuals low in MIS. However, the strength of this moderated relationship was diminished if individuals were also high in moral identity internalization (i.e., a three-way interaction). Other research has found that both symbolization and internalization can each predict negative reciprocity but under different conditions. Symbolization related to revenge when the individual was the target of interpersonal injustice, whereas internalization related to revenge only when the individual observed injustice directed toward someone else (Barclay, Whiteside, & Aquino, 2014). Thus, individuals with high MIS and low internalization may be more concerned with retribution for personal injustices than “doing the right thing.”

Similarly, Mayer, Aquino, Greenbaum, and Kuenzi (2012) found that leaders' moral identity internalization directly reduced unit-level unethical behaviors, whereas MIS marginally ( $p < .10$ ) reduced unit-level unethical behaviors indirectly through ethical leadership. The authors surmised that MIS might be a better predictor of actions that have a visibly public component, and research by Ormiston and Wong (2013) supported their intuition. In an archival study of *Fortune* 500 companies, the authors investigated the

positive relationship between corporate social responsibility (e.g., actions that go beyond legal requirements to help improve communities, such as donating a portion of the organization's profits to a local charity) and corporate social irresponsibility (e.g., actions that harm various stakeholders, such as employment discrimination or ignoring environmental safety precautions). These were shown to be positively correlated since organizations may engage in charitable acts to help improve a negative consumer reputation after an unethical public revelation, for example. The authors found that CEOs' MIS moderated the positive relationship between corporate social responsibility and corporate social irresponsibility, such that the relationship was stronger when CEOs exhibited greater MIS. This finding suggests that individuals and organizations may disarm others through impression management to symbolize they are moralistic, even though they continue to engage in unethical behaviors behind the scenes (Ormiston & Wong, 2013).

While some of the previous literature may show negative consequences of high MIS with low internalization, a separate issue concerns whether others' MIS displays can influence observers. Desai and Kouchaki (2017) investigated the relationship between observing moral symbols (e.g., a crucifix, posters of inspirational leaders, or moralistic quotes) and moral decision making. When individuals observed these moral symbols, morality-associated schemas were activated, and this caused individuals to become more cognizant of the ethicality of the given situation. The authors found that leaders' exposure to subordinates' visible moral symbols caused leaders to engage in fewer unethical behaviors themselves and requested fewer unethical behaviors from their subordinates. Similarly, perceptions of coworkers' ethical behaviors can influence the likelihood of reporting unethical conduct within organizations (Mayer, Nurmohamed, Treviño, Shapiro, &

Schminke, 2013). From these studies, I postulate that participants' exposure to their teammates' MIS will empower them to withstand personal persuasions from their leader to engage in unethical behaviors on behalf of their organization.

*Hypothesis 4. LIE is more weakly related to UPB when teammates' MIS is high.*

## **Method**

### **Participants**

The sample for this study consisted of 304 undergraduate business students attending the University of Maryland during the Spring 2018 semester. Students were randomly assigned to conditions ( $n = 19$ ) and received a modest monetary incentive for participation depending on their team's success in the virtual creativity task (see Procedure for details). The average age of participants was 21.1 ( $SD = .43$ ), and 51.3%, 47.4%, and 1.3% reported a male, female, or "other" gender identity, respectively. Demographically, the sample was reasonably diverse with 57.9% White, 19.4% Asian/Pacific Islander, 8.9% Black, 8.2% Hispanic, and 5.6% "other" self-reported races and ethnicities. 99.4% of the sample also reported having fair or better English-speaking and understanding skills.

### **Design**

I employed a 2 (high and low LIE) x 2 (high and low LMX) x 2 (high and low LLX) x 2 (high and low teammates' MIS) between-subjects factorial design to investigate my hypotheses. The dependent variable in this study was the proportion of times participants cheated during a virtual team creativity task to benefit their university, their team, and themselves (i.e., UPB).

## Procedure

Participants met in a laboratory at prescheduled times during regular business hours, and each session had up to 12 participants (but no fewer than two). As participants arrived, an experimenter would greet and direct them to an ostensibly assigned computer station labeled with a number and pennant of the university's mantra. A large university flag was also placed in the testing room to increase organizational identification salience. The experimenter collected informed consent and explained that the research team was interested in investigating virtual team creativity of teams composed of members located in various sites across campus. Furthermore, the experimenter revealed there was a competition between the University of Maryland and the University of Houston to see which school was the most creative. The highest performing teams from the winning university (i.e., the top 25%) would divide a bonus cash prize at the team leader's discretion. The experimenter then waited approximately 30 seconds to receive a fictional text confirmation from the other campus sites and directed participants to put on their headphones to begin the study.

**The synergize! task.** The Synergize! virtual team task was primarily adapted from a previous study (Erez, Schilpzand, Leavitt, Woolum, & Judge, 2015) but modified to fit the goals of this research. Undergraduates would begin the task by entering a unique four-digit participant ID given to them by the experimenter. After logging in, an informational menu displayed details concerning the online task, which explained that the purpose of the study was to see how anonymous virtual teams collaborate on creative endeavors, who the team leader was (i.e., a successful past participant), and that the right-hand side of the screen would display a team message board. Participants then chose a character piece to represent themselves (e.g., a cat or an airplane) and created a fictitious username that "uniquely

describes what you like to do in your spare time.” The participant was randomly assigned to a team of four members who were simultaneously playing the game from the same or another location on campus. However, in actuality, these were three confederates programmed in the software, one of which was the team leader. Both the team name (i.e., the university's mascot) and school logo were displayed on the top and bottom left corner of the screen throughout the study, respectively.

The team leader would then initiate the task by revealing the task instructions on a subsequent screen. The goal of the creativity task was to come up with as many creative uses for a computer-assigned household item (which was always “brick”) directly before the task begun over five minutes via turn-style gameplay. Participants read that the faster they submitted their creative uses, the faster their teammates could be randomly assigned to provide their responses, and thus the higher their team's score could be potentially. To make the task more challenging, participants had to respond within seven seconds, or their team would lose a point. Furthermore, the instructions informed participants that their creative uses had to be unique across players, so their teammates' responses were hidden to ensure they would think creatively. Each submission received a single point for the team regardless of the quality of the response, and participants could see their team's total score updated after each player's turn.

After clicking continue, the computer screen presented information about the potential reward opportunity. Participants read that if their university submitted the highest number of creative household item-uses and their team was high-performing (i.e., the team's score was in the top 25% of all teams), then a \$50 cash prize would be distributed amongst the team at the team leader's discretion. Furthermore, they read that the team leader was



personally invested due to a large potential cash prize for leading the best teams, as well. The team leader then quickly reiterated how the task and reward would operate. For 10 seconds, the household item assigned to the team, a “brick,” would be displayed in the middle of the screen. Immediately after that, the task began with one of the confederates submitting a concealed response. It is important to note that confederate teammates submitted a response every turn within approximately three to five seconds, thus continuously adding a point to the team score and decreasing the gameplay wait time for participants.

Upon the task's completion, the participant reviewed the final team score and then responded to a brief questionnaire concerning his or her experiences. The first question asked the participant to name any of his or her team members if known, given that this was an anonymous virtual team creativity task. This question also functioned to make the task appear more authentic. Next, the participant responded to various manipulation check and filler items on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*; see Appendix A). For example, “to what extent was your team's leader friendly to you?” concerned the LMX manipulation. The participant then responded to the satisfaction with the team leader, commitment to the leader, and satisfaction with own behavior questionnaires. Finally, the study asked participants if they had ever completed a virtual task similar to this one before for course credit (as a means to remove non-naïve participants from data analysis) and the extent of their English-speaking and understanding abilities. The Synergize! task then concluded, and the participant exited the testing room quietly without disrupting others.

***Leader's immorality-encouragement manipulation.*** Before the participant's third turn on the team creativity task, the team leader sent the following private message (i.e., only the participant received it): “Try your hardest to help UMD win!” This message was

presented to participants in all conditions in order to increase their motivation to help their university win. Before the 10<sup>th</sup> turn, in the high LIE condition, the team leader sent a private message saying, "Type fast to get our team as many points as possible! Even gibberish like adfjafkaj or random words like apple. Computer can't tell the difference!" In the low LIE condition, the leader only stated, "Type fast to get our team as many points as possible!" The high LIE message explicitly encouraged the participant to cheat to help the team win, whereas the low LIE condition reflected a high-performance goal with no explicit instructions on how to achieve it.

***Leader-leader exchange manipulation.*** Once the teams were assigned but before the team leader "logged in," a fictitious lab manager, Dr. Fitzgerald, welcomed and thanked the participants via ostensibly real-time typing displayed across the center of the screen. In the high LLX condition, the lab manager announced,

*"Hi, I'm Dr. Fitzgerald and I'm assigning you to (team leader name)'s team today. (Team leader name) is currently picking a character piece to use in the upcoming team creativity task and will be with you shortly. (Team leader name) is my favorite team leader, and I believe you will all work well together. That's why I will keep requesting (team leader name) as a team leader for these studies. Signing out now to speak with the other teams."*

In the low LLX condition, the lab manager instead declared,

*"Hi, I'm Dr. Fitzgerald and I'm assigning you to (team leader name)'s team today. (Team leader name) is currently picking a character piece to use in the upcoming team creativity task and will be with you shortly. (Team leader name) may not be the easiest person to work with but hopefully can still help you through this process. That's why I am*

*looking for a new team leader to replace (team leader name) after this set of studies. Signing out now to speak with the other teams."*

"Team leader name" was replaced randomly for each participant with the gender-neutral names, "Jamie" or "Casey." The above messages characterized the quality of the relationship between the lab manager and assigned team leader. In the high LLX condition, participants were led to believe the lab manager and team leader had a close relationship characterized by mutual liking and long-term commitment. However, the opposite was the case in the low LLX condition where the team leader was typified as a member of the out-group, ready to be replaced once the contractual agreement was complete. The lab manager then "logged out" before the team leader joined the team.

***Teammates' moral identity symbolization and leader-member exchange manipulations.*** The two confederates assigned to play the virtual team task were each programmed to have moralistic or morally neutral usernames based on the initial username creation instructions. In the high MIS condition, teammates' usernames were "homes4humanity" and "YMCAwesome," whereas the low MIS condition confederates were named "DanceDanceREV" and "Trailrunner."

The team leader welcomed team players to the task, referenced the university's pride slogan, then asked the teammates to introduce themselves via a brief icebreaker of four questions designed to induce relationship closeness (see Appendix A; adapted from Sedikides, Campbell, Reader, & Elliot, 1999). The following three questions were asked multiple-choice style: "What kind of music do you like?", "If you could visit any place in the world, where would you go?", and "Which of the following dream jobs would you prefer?" Confederate teammates' answers were randomly selected but never matched participants'

responses. The fourth question was open-ended stating, "Briefly list what you like to do in your spare time, including any organizations you're a member of if applicable." In the high MIS condition, YMCAwesome remarked, "Mentor kids through Big Brothers, Big Sisters and coach for the YMCA" and homes4humanity responded, "Build houses with Habitat for Humanity and serve food at the homeless shelter." In the low MIS condition, Trailrunner announced, "Work out with the running club and bike around the city" and DanceDanceREV replied, "Compete with my dance team and meet with a book club on campus." These messages were meant to symbolize the confederates' high or neutral morality to participants.

After ostensibly reviewing each team player's response, the team leader commented that most of the team did fun things in their free time, and sent the following two messages:

*"It's also pretty cool how we both listen to (automatically filled in based on the player's response) and have the same dream job, (username). I'm glad we got placed on the same team!"*

*"(Username), I have no interest in those activities. Looks like we don't really have that much in common."*

These public messages to the team signified high- and low-quality LMX relationships, respectively. In the high LMX condition, the participant's username was referenced in the first message, whereas a confederate was randomly assigned the second message. The low LMX condition was the reverse of this scenario.

### **Data Analysis Strategy**

I operationalized UPBs as the proportion of the final 10 trials participants engaged in cheating behavior on behalf of their organization using a content analysis strategy.

Researchers typically conceptualize creativity as both (1) novel and (2) potentially useful

ideas (Shalley, Zhou, & Oldham, 2004). Thus, cheating during this virtual team creativity task could take one of three forms: non-sensical responses (e.g., “apple” as a use for a brick), fictional responses (e.g., a string of random letters, “asdfesfsdf”), or repeating a previously submitted response. Two graduate students coded the data independently and blindly to the experimental conditions. These three response types were summed together to analyze cheating proportions during the last 10 trials across all participants, which is when participants received the LIE message manipulation from the team leader. Participants who failed to submit a response within seven seconds during a single trial (i.e., an omission) were not considered cheating since this was an appropriate behavior if they were unable to come up with a creative brick use.

I performed the primary data analyses using logistic regression through SAS software since logistic regression is ideal for count data proportions that represent the number of “successful” events, such as cheating, out of a total number of trials. This technique is also advantageous due to its relatively few assumptions compared to linear regression methods. Logistic regression has no assumptions of multivariate normality nor homoscedasticity, which was violated with this dataset since each of the experimental conditions exhibited differential rates of cheating (Hair, Black, Barry, & Anderson, 2010). For example, participants in the high LIE conditions demonstrated greater variability in cheating responses on average ( $M = 5.47$ ,  $SD = 3.26$ ) compared to the low LIE conditions ( $M = 2.87$ ,  $SD = 2.27$ ). This is likely due to some participants fully complying with their team leader’s request (i.e., cheat on each trial during the final 10 turns), whereas others decided to resist the team leader. In contrast, participants in the low LIE conditions demonstrated an overall lower base rate of cheating. Furthermore, logistic regression works well for bounded, discrete data since

predicted equations should only extend to theoretically meaningful values, which for this experiment is the proportion of cheating responses out of 10 turns.

I tested my four hypotheses by first entering the main effect of LIE then the three two-way interactions, LIE by LMX, LIE by LLX, and LIE by MIS, into two logistic regression models to examine each parameter's significance. I assessed the hypothesized model's fit by comparing its -2 log likelihood fit statistic to the saturated model (i.e., a model with 16 parameters estimated representing each condition) using a likelihood ratio  $\chi^2$  test (Cohen, Cohen, West, & Aiken, 2003). Lower -2 log likelihood values indicate better overall model fit. With a sample size of 304 and alpha level of .05, this experiment had at least 94% power to detect true differences between conditions with at least a 0.1 proportion difference or greater.

I also utilized two-tailed independent samples *t* tests to assess the post-experiment questionnaires, such as the manipulation check items (see Appendix A). Each questionnaire was measured on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). I further applied two-tailed independent samples *t* tests to determine if LIE led to systematic differences between participants' satisfaction with the leader, commitment to the leader, and satisfaction with their own behavior.

## Results

### Manipulation Checks

First, I explored the two naïveté check questions on the post-experiment questionnaire to reveal if any participants should be removed from data analyses. Only 3% of participants ( $n = 9$ ) indicated they recognized their teammates or team leader, despite fake usernames concealing teammates' identities. Of these nine participants, the majority ( $n = 5$ ) reported that

these individuals were either classmates or people located within the same room, but no participants expressed any concerns about the team members' authenticities. Therefore, I retained these nine participants. 6.3% of participants ( $n = 19$ ) also indicated they had participated in a similar creativity task for research credit before this study. Statistical significance of parameter estimates at the .05 level was equivalent for each of the hypothesized and supplementary tests whether these participants were included or excluded from analyses. Thus, I chose to retain these participants, as well, in order to increase statistical power and maintain equal cell sizes across conditions.

I then analyzed the manipulation checks to determine whether participants, on average, perceived each independent variable's intended manipulation. Unexpectedly, participants in the high LIE condition revealed only a marginally significant increase in belief that their team leader was eager to win ( $M = 6.32$ ,  $SD = 1.09$ ) compared to the low LIE condition ( $M = 6.10$ ,  $SD = 1.02$ ),  $t(302) = 1.85$ ,  $p = .07$ . Averaging across the two LMX manipulation items ( $\alpha = .86$ ), the high LMX condition participants believed their team leader was friendlier and more similar to them ( $M = 5.86$ ,  $SD = 1.10$ ) than participants in the low LMX condition ( $M = 2.62$ ,  $SD = 1.37$ ),  $t(302) = 22.77$ ,  $p < .001$ . However, participants in both the high LMX ( $M = 3.65$ ,  $SD = 1.83$ ) and low LMX ( $M = 3.79$ ,  $SD = 1.74$ ) conditions did not significantly differ in their perceptions of the leader being friendly to all team members, as predicted,  $t(302) = .67$ ,  $p > .05$ . Participants in the high LLX condition believed their team leaders had good relationships with the lab manager ( $M = 6.26$ ,  $SD = 1.28$ ) relative to participants in the low LLX condition ( $M = 2.68$ ,  $SD = 1.61$ ),  $t(302) = 21.53$ ,  $p < .001$ . Finally, participants in the high MIS condition believed their teammates were more caring and compassionate people ( $M = 4.90$ ,  $SD = 1.22$ ) than those in the low MIS condition ( $M =$

4.48,  $SD = 1.12$ ),  $t(302) = 3.14$ ,  $p < .01$ . Thus, the manipulation check analyses suggest nearly each of the intended manipulations was effectively administered.

### **Other Post-Experiment Measures**

The post-experiment questionnaire yielded further insights into various attitudes between participants in the high and low LIE conditions. Interestingly, participants in the high LIE condition expressed a similar satisfaction with an immorality-encouraging leader ( $M = 3.97$ ,  $SD = 1.77$ ) as participants in the low LIE condition with an ethically neutral leader ( $M = 4.28$ ,  $SD = 1.57$ ), averaged across two items ( $\alpha = .91$ ),  $t(302) = -1.61$ ,  $p > .05$ . However, there was a marginally significant decrease in commitment to the team leader (averaged across two items;  $\alpha = .95$ ) for participants in the high LIE condition ( $M = 3.73$ ,  $SD = 1.84$ ) compared to participants in the low LIE condition ( $M = 4.12$ ,  $SD = 1.68$ ),  $t(302) = -1.92$ ,  $p = .06$ . Participants in both the high LIE ( $M = 4.23$ ,  $SD = 1.26$ ) and low LIE ( $M = 4.14$ ,  $SD = 1.31$ ) conditions were furthermore equally satisfied with their own performance on the creativity task, averaged across five items ( $\alpha = .85$ ),  $t(302) = .56$ ,  $p > .05$ .

### **Tests of Hypotheses**

I initially assessed Cohen's  $\kappa$  to determine if there were sufficient agreement between the two raters on the various categories of appropriate cheating responses. Overall, there was substantial agreement between the two raters,  $\kappa = .73$ , 95% CI  $[.71, .75]$ ,  $p < .0001$  (Landis & Koch, 1977), and the two raters discussed and resolved each of the discrepancies. Across all conditions, on average, participants cheated on 4.17 ( $SD = 3.09$ ) of the final 10 trials of the Synergize! creativity task.

I utilized hierarchical logistic regression to test my four hypotheses concerning cheating for the good of the organization over the final 10 trials (i.e., UPB; see Figure 1 for



the hypothesized model diagram). First, I entered the main effect of LIE into a logistic regression model, and then I added the three hypothesized interaction terms in the second step. The first step in hierarchical logistic regression allowed me to test Hypothesis 1 that LIE was positively related to participants' UPBs. The main effect of LIE on UPBs was positive and statistically significant ( $B = 1.10, p < .0001$ ; see Model 1 in Table 1). This suggests that the high LIE condition increased the odds of cheating over the final 10 trials by nearly 200% compared to the low LIE condition, which supports Hypothesis 1.

I next modeled the three 2-way interactions of LMX, LLX, and MIS with LIE to test hypotheses 2 through 4 in the second hierarchical logistic regression model. Hypothesis 2 predicted that the positive relationship between LIE and UPB would be moderated by LMX, such that the positive relationship would become stronger for the high LMX condition, controlling for the other factors. Hypothesis 2 was also supported ( $B = .44, p < .01$ ; see Model 2 in Table 1). This suggests that the relationship between LIE and UPB was stronger when participants also had a positive relationship with their leaders (i.e., high LMX; see Figure 2). However, Hypotheses 3 and 4 were not supported,  $B = .21, p > .05$  and  $B = .04, p > .05$ , respectively (see Model 2 in Table 1). This implies that the effect of LIE at high LLX on UPB (Hypothesis 3) did not differ from the effect of LIE at low LLX, controlling for the other factors. Likewise, the relationship between LIE and UPB did not depend on the level of MIS (Hypothesis 4), controlling for the other variables. Interestingly, there was a statistically significant conditional effect of MIS on UPB ( $B = -.38, p < .01$ ; see Model 2 in Table 1). Thus, the high MIS condition decreased the odds of engaging in UPBs by 31% compared to the low MIS condition, controlling for the other factors.

### Supplementary Analyses

Prior to data collection, a collaborator (Dr. Debra Shapiro) suggested there could be conceptually meaningful higher-order interactions that might influence the nature of the two-way interactions. Specifically, the strong two-way interaction between LIE and LMX on UPBs found in previous research (Mesdaghinia, 2016) might be strengthened or weakened depending on the level of the third variables, LLX and MIS. Although a favorable relationship with a leader who encourages immorality for the good the organization may increase the likelihood of participants engaging in UPBs, participants may be even more compelled to comply if their leader also has a positive upward exchange relationship, as well. This is because well-respected leaders have more influence on individuals' thoughts and behaviors due to their elevated status, which helps secure organizational resources that benefit their most-trusted subordinates (Zhou et al., 2012). On the other hand, a manager's poor evaluation of the team leader may create a negative impression that is particularly resistant to change (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Salient negative information provided by an upper-level manager could potentially nullify the impacts of a team leader's expressed liking and similarity with a subordinate.

*Hypothesis S1. There is a three-way interaction between LIE, LMX, and LLX, such that the tendency for the positive relationship between LIE and UPB to be stronger under conditions of high LMX will be strengthened further when LLX is high.*

Furthermore, teammates' MIS might dampen the two-way interaction of LIE with LMX on UPB. Teammates who espouse prosocial interests can evoke a moral awareness that reduces observers' likelihood of engaging in unethical behaviors (Desai & Kouchaki, 2017). Awareness of teammates' MIS may stimulate participants' ethical decision making by

aligning their behaviors with their values or out of fear from possible retaliation by their teammates. This could occur despite the potential benefits of complying with a personally liked leader who encourages unethical behaviors.

*Hypothesis S2. There is a three-way interaction between LIE, LMX, and MIS, such that the tendency for the positive relationship between LIE and UPB to be stronger under conditions of high LMX will be weakened when MIS is high.*

Because two of my hypotheses were unsupported in this experiment, I proceeded to determine if the proposed supplementary model could better account for the variability in UPBs (see Figure 3 for model diagram). Using the likelihood ratio  $\chi^2$  test, I discovered that my hypothesized model did not provide the best overall goodness of fit for the data,  $\chi^2 (8, N = 304) = 52.39, p < .0001$ . However, the likelihood ratio  $\chi^2$  test yielded a better fitting model with the two three-way interactions between LIE, LMX, and LLX, as well as LIE, LMX, and MIS,  $\chi^2 (4, N = 304) = 7.92, p > .05$ . This suggests the two-way interaction between LIE and LMX depended on the level of LLX, controlling for MIS,  $B = .66, p < .05$  (see Model 3 in Table 2). Likewise, the two-way interaction between LIE and LMX depended on the level of MIS, controlling for LLX,  $B = 1.83, p < .0001$  (see Model 3 in Table 2).

Following the advice of Maxwell and Delaney (2003), I then conducted appropriate follow-up tests to investigate the nature of these significant three-way interactions while controlling for family-wise alpha. I first performed follow-up tests for the LIE  $\times$  LMX  $\times$  LLX interaction (see Figure 4). Simple interaction tests revealed a significant two-way interaction between LIE and LMX at high LLX ( $z = 3.72, p < .001$ ), which was non-significant at low LLX ( $z = .73, p > .05$ ). This finding supported Hypothesis S1. Follow-up contrasts demonstrated a statistically significant difference in UPB between the high LIE  $\times$

high LMX  $\times$  high LLX condition and the average of the three other conditions at high LIE ( $z = 4.51, p < .0001$ ), whereas the difference between the low LIE  $\times$  high LMX  $\times$  high LLX condition and the average of the three other conditions at low LIE was not statistically significant ( $z = -1.02, p > .05$ ). Thus, when participants perceived that their team leaders had higher-quality relationships with the lab manager (i.e., high LLX), the effect of LIE on UPB became stronger in the high LMX condition. In the low LLX condition, simple, simple main effect tests revealed a significant effect of LIE on UPBs ( $z = 9.34, p < .0001$ ) but not for LMX ( $z = -1.15, p > .05$ ). This indicates that participants' relationship qualities with their leaders did not influence their cheating behaviors beyond the influence of LIE when LLX was low.

Next, I conducted similar follow-up tests to explore the significant LIE  $\times$  LMX  $\times$  MIS interaction (see Figure 5). Simple interaction tests yielded a significant two-way interaction between LIE and LMX at high MIS ( $z = 6.17, p < .0001$ ) but only a marginally significant two-way interaction at low MIS ( $z = -1.95, p = .05$ ). Further contrasts unveiled statistically significant differences between the high LIE  $\times$  low LMX  $\times$  high MIS condition and the average of the three other conditions at high LIE ( $z = -5.43, p < .0001$ ) and between the low LIE  $\times$  high LMX  $\times$  high MIS condition and the average of the three other conditions at low LIE ( $z = -5.26, p < .0001$ ). Although MIS reduced the effect of LIE at low LMX, there was still a significant simple, simple main effect of LIE for the low LMX  $\times$  high MIS condition ( $z = 3.07, p < .01$ ). Interestingly, MIS weakened the effect of LIE when participants had lower-quality relationships with their leaders (i.e., low LMX). On the other hand, participants were less likely to engage in UPBs at low LIE when they had better relationships with their leader (i.e., high LMX) and observed their teammates' prosocial organizational

memberships and hobbies (i.e., high MIS). These findings do not support the hypothesized direction of the three-way interaction effect specified in Hypothesis S2. In the low MIS condition, simple, simple main effect tests revealed a significant effect of LIE on UPBs ( $z = 10.20, p < .0001$ ) but not for LMX ( $z = 1.30, p > .05$ ). This suggests that participants' relationship qualities with their leaders did not influence their cheating behaviors beyond the influence of LIE when MIS was low.

It is also important to note that the supplementary model accurately predicted 68% of observed pairs of cheating behavior proportions based on the model parameters. Therefore, although this supplementary model fits the data well, there are other factors and statistical error that may be driving UPBs beyond the scope of this experiment.

### **Discussion**

This is the first laboratory experiment to examine the role of leaders' immorality-encouragement (LIE) on subordinates' unethical pro-organizational behaviors (UPBs). Specifically, I assessed the extent to which interpersonal moderators, such as leader-member exchange (LMX), leader-leader exchange (LLX), and teammates' moral identity symbolization (MIS) strengthened or weakened the hypothesized relationship between LIE and UPB. Through social cognitive theory (Bandura, 1986) and French and Raven's (1959) bases of social power theory, I first predicted that participants in the high LIE condition would be more likely to engage in a greater number of UPBs than participants in the low LIE condition. Hierarchical logistic regression analysis provided general support for Hypothesis 1. I also predicted that the positive relationship between LIE and UPB would become stronger at high LMX (Hypothesis 2) and high LLX (Hypothesis 3). I found empirical support for Hypothesis 2 but not Hypothesis 3. Finally, I predicted that teammates' MIS

would weaken the positive relationship between LIE and UPB (Hypothesis 4), but this hypothesis was not supported when averaged across other experimental conditions.

However, my hypothesized model did not provide the best overall model fit for the data, suggesting that other models existed that could better account for the complex interrelationships among variables. I then followed the advice of a collaborator to test two three-way interactions involving  $LIE \times LMX \times LLX$  and  $LIE \times LMX \times MIS$ , which yielded a better model fit (see Model 3 in Table 2).

Follow-up tests and graphical interpretations of the  $LIE \times LMX \times LLX$  three-way interaction (see Figure 4) revealed that the two-way interaction between LIE and LMX depended on the level of the LLX condition. For the low LLX condition, there was not a significant two-way interaction but only a main effect of LIE. On the other hand, there was a significant two-way interaction at high LLX causing the positive relationship between LIE and UPB to become stronger at high LMX. This three-way interaction supports the theoretical rationale that individuals assess not only their personal relationships with their leaders (i.e., LMX) but also the upward exchange relationships involving their leaders' leaders when making performance decisions. It is plausible that interpersonal trust may delimit the extent to which participants comply with LIE to perform UPBs. Three characteristics determine an individual's trustworthiness: ability, benevolence, and integrity (Mayer, Davis, & Schoorman, 1995). Positive personal experiences with one's leader coupled with corroborating support from an upper-level manager may increase expectancies that the team leader will behave in a way that promotes the welfare of the participant. In this experiment, complying with LIE from a highly endorsed team leader could maximize one's own earning potential while further aiding in the team's objectives. Employees in the

workplace may similarly perform UPBs at high-status leaders' requests due to their leaders' relatively greater referent and reward power in various forms, such as project visibility, promotions, and pay raises (French & Raven, 1959). Alternatively, negative information from an upper-level manager may counteract a positive personal relationship with the team leader since participants may not fully trust that the leader has the competence, benevolence, or integrity to work in the participant's or team's best interests (Baumeister et al., 2001; Mayer et al., 1995).

Although previous research has primarily focused on the constructive organizational outcomes that derive from positive workplace relationships (e.g., increased job performance, organizational commitment, job satisfaction, and upward voice; Dulebohn et al., 2012; Liu et al., 2013), these results suggest a possible "dark side" to positive workplace relationships. Desirable organizational outcomes arising from positive workplace relationships may depend on the espoused unethicity of the leader. Thus, if the leaders who are liked by both subordinates and their superiors encourage unethicity on behalf of the organization, detrimental outcomes may occur, such as subordinates engaging in corrupt practices through a pro-organizational framework.

Nonetheless, it is not enough to consider only vertical influences on participants' UPBs; teammates also seem to play an essential role. When averaged across all other conditions, MIS had a negative main effect on UPBs (see Model 2 in Table 1), such that participants were less likely to cheat when working alongside prosocial teammates. However, the significant  $LIE \times LMX \times MIS$  three-way interaction suggested that the way in which MIS reduced UPBs depends on the levels of LIE and LMX. (see Figure 5). At high MIS, there was a significant two-way interaction between LIE and LMX, suggesting that the

relationship between LIE and UPBs was stronger at high LMX. Although this form of a three-way interaction was not hypothesized, the empirical results imply that teammates' MIS may not be strong enough to reduce the combinatory effects of high LIE and LMX. Positive relationships with participants' dishonest leaders may override any personal ethicality concerns, despite whether their teammates conveyed various prosocial hobbies and interests publicly. This finding may be due to the team leader having exclusive reward or coercive power over participants' potential financial compensation in this experiment. Likewise, in the workplace, team members may not have the full awareness of others' performance or opportunity to effect changes in others' career outcomes, so subordinates' behaviors may be more strongly influenced by closely affiliated leaders. However, participants' UPBs were reduced by their teammates' MIS if participants did not have amicable experiences with their dishonest team leaders. The perceived ethicality of teammates may act as a protectant effect to bring the morality of the situation to participants' awareness, which could help participants resist temptations by a disliked, unethical leader (Desai & Kouchaki, 2017).

The findings from this experiment do not suggest all positive relationships will necessarily lead to negative consequences, however. The LIE  $\times$  LMX  $\times$  MIS three-way interaction also illustrated that participants with positive relationships with their leaders and who worked with outwardly moralistic teammates were the least likely to engage in UPBs when their leaders only encouraged high performance without unethical inducements. Thus, participants in the low LIE, high LMX, and high MIS conditions were more likely to "play by the rules" by coming up with a greater number of creative brick uses or pass their turns whenever they were unable to do so. The results from these supplementary analyses



generally support the importance of LMX and MIS on LIE's effects on UPBs in similar field findings reported by Mesdaghinia and colleagues (2016).

### **Limitations and Future Directions**

There are several limitations associated with this study worth considering. First, the naiveté check question did not directly assess whether participants found anything suspicious about the study or manipulations, which may explain why few participants indicated knowing any of their teammates. However, the naiveté check question in this experiment also functioned to make the virtual team experience ostensibly more realistic by suggesting that it was possible participants might recognize their teammates. A suspicion check question may have altered the way participants responded to the following questionnaire items, so the limitation associated with its absence might be somewhat mitigated. Relatedly, the LIE manipulation check did not show differentiation between participants in the high LIE and low LIE conditions. This limitation also posed as an advantage because the differences between these conditions could not be associated with a difference between each of the leaders' "eagerness to win." High LIE and low LIE leaders both encouraged high performance, but the mechanisms for achieving that high performance are demonstrably distinct. In future research, it may be beneficial to inquire about participants' perceptions of their leaders' ethicality implicitly without revealing the study's true purpose.

Furthermore, the use of a college student sample in a laboratory experiment somewhat limits the generalizability of the results from this study. Laboratory representations of real-world situations, although contrived, provide excellent opportunities to study socially unapproved phenomena with overall low base rates and situations in which respondents may feel uncomfortable disclosing. Ethical and practical considerations prohibit the

implementation of a similar field experiment with employees from a single organization. In addition, the tradeoff of lower external validity provides greater internal validity and evidence of causality, given that participants were randomly assigned to conditions. Future research could replicate these findings through survey research or using a representative sample of employees from the general population working for a single organization outside of a college setting.

A final limitation is that this experiment does not explicitly demonstrate that each coded instance of cheating was a conscious unethical act for the good of the organization and team. It is possible that some individuals cheated purely for self-gain, although a complete disinterest in helping one's team or university seems unlikely. People are not always conscious or aware of their motivations for engaging in certain behaviors (Forgas, Williams, Laham, & Von Hippel, 2005), so both selfish and prosocial motives could underlie their behavior due to people's basic need to belong (Baumeister & Leary, 1995). Furthermore, others may have been unfairly penalized for a lack of creativity, but random assignment assured individual differences associated with creativity were distributed equally across conditions. This limitation signifies a conservative approach to analyzing UPBs, as participants in the low LIE conditions may have had inflated levels of UPBs relative to those in the high LIE conditions. Future research could attempt to isolate the cognitive mediating mechanisms underlying why individuals engage in UPBs and measure baseline creativity levels prior to experimental manipulations.

Future research may also consider various additional moderators that may alter the positive relationship between LIE and UPBs. For example, the current MIS manipulation ranged modestly from teammates' neutral hobbies and usernames in the low condition to

prosocial ones in the high condition. Although this operationalization maps onto the MIS construct well, this approach may have limited the strength of the morality manipulation effect. For example, teammates who spend their free time engaging in assorted vices (e.g., gambling) may have strengthened the manipulation's effect size compared to ethically neutral teammates who do "every day" activities, such as going to book club and biking. Other relevant morality variables include ethical climate (Martin & Cullen, 2006), moral potency (Hannah & Avolio, 2010), and group ethical voice (Huang & Paterson, 2017). Opportunities for participants or teammates to whistleblow may have interesting consequences on the strength of LIE, as well. For example, at the creativity task's conclusion, participants could be asked if they observed anything unusual about other teammates' or their leaders' behavior during the task. If participants believed there was a chance that other teammates may report their cheating behavior, they may play the creativity task as intended in order not to forfeit any potential rewards should the team win.

More research will also be necessary to determine the various antecedents of LIE. Dispositional variables such as the dark triad of personality (i.e., narcissism, psychopathy, and Machiavellianism; Paulhus & Williams, 2002), desires for greed, status, or power, or an overly competitive marketplace may motivate leaders to encourage subordinates to engage in UPBs.

### **Practical Implications**

The findings from this experiment have several practical implications. First, subordinates are more likely to engaged in UPBs when leaders explicitly or implicitly encourage this type of unethical behaviors. Subordinates, particularly newly hired workers, may comply with UPB requests out of ignorance and an over-reliance on leaders' expert

power (French & Raven, 1959). In other words, if subordinates do not know how tasks *should* be performed, they may engage in UPBs if their leaders are providing the primary source of on-the-job training. Organizations could thus ensure that both supervisors and subordinates receive proper training in order to facilitate the development of appropriate task mental models. Organizations may wish to lead training efforts for employees in order to sensitize them to the nature of LIE and UPBs. UPBs may work through a cognitive dissonance mediating mechanism (Umphress & Bingham, 2011), so awareness that these sorts of behaviors are indeed unethical and ultimately harm the organization in the long run may help employees avoid attempts to rationalize them as acceptable. Employee training could also assist employees in recognizing and subsequently resisting if and when their leaders ask them to do something unethical on the organization's behalf.

However, task training may not be enough. A positive relationship with a well-respected leader (i.e., high LMX and LLX) may present a toxic combination that increases the odds of a subordinate engaging in UPBs upon his or her leader's request, which could undermine any training efforts. It would not be a viable solution to terminate these working relationships, given the numerous positive benefits that come from a strong LMX and LLX, such as better job performance, reduced turnover intentions, increased organizational commitment (Dulebohn et al., 2012) and team empowerment (Zhou et al., 2012). Other steps could be taken to mitigate risks of UPBs under these circumstances. For example, an internal reporting system for whistleblowing could be implemented that allowed employees to report ethical misconduct anonymously without fear of retaliation. The extent to which this system is successful would depend on subordinates using it, though, and it does not seem likely

employees would want to potentially endanger their positive relationships with their supervisors.

Organizations should instead focus their efforts on the prevention of UPBs rather than the reporting of UPBs once they have already occurred. This could entail having a neutral third-party present during any high-cost or high-risk projects or increase auditing of bottom-line results, especially if the dyadic employees have a closely tight-knit relationship. Likewise, organizations could encourage more collaboration on team-based work and hold the team and supervisor accountable if individual members violate ethical standards. If a subordinate's work is available for others' scrutiny beyond the immediate supervisor, the subordinate may be less likely to fulfill UPB requests from his or her leader out of fear of becoming exposed. It could also benefit organizations to instill an ethical climate where ethical rules and regulations are highly endorsed by upper management, and employees are expected to be transparent, open, and honest with one another. In a highly ethical climate, employees and supervisors could be penalized for unethical behaviors if they go unreported. This may be particularly effective since teammates' MIS reduced the odds of engaging in UPBs even after controlling for the other factors in this study (see Model 2 in Table 1). Thus, "it takes a village" to report unethical wrongdoing (Mayer et al., 2013).

### **Conclusion**

In conclusion, findings from this laboratory experiment suggest that individuals may engage in unethical behaviors for the good of their organization or its members when encouraged by their leaders, and this appears to be a powerful causal antecedent of UPBs. Furthermore, interpersonal factors may play influential roles in whether an individual decides to comply with his or her leader's unethical requests. If leaders are well-liked by subordinates

and upper management, subordinates may feel particularly compelled to abide by their leaders' desires and subsequently engage in greater amounts of UPBs. This demonstrates the toxic nature of having a strong LMX relationship with a prominent leader who encourages UPBs. Teammates' outward displays of morality may help individuals oppose unethical inducements from leaders with whom they do not have particularly strong relationships, though. However, not all positive work relationships will necessarily lead to greater odds of UPBs. High-LMX leaders who only encourage high performance goals without unethical implications can lead to fewer subordinate UPBs when subordinates work alongside outwardly moralistic teammates. This study yields theoretically and practically meaningful strategies for investigating and further preventing UPBs in organizations.

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## Tables

Table 1

*Identifying Hypothesized Influences of UPBs During the Final 10 Trials Using Hierarchical Logistic Regression*

<b>Predictor</b>	<b>Model 1</b>			<b>Model 2</b>		
	<i>B</i>	<i>SE</i>	<b>Exp(<i>B</i>)</b>	<i>B</i>	<i>SE</i>	<b>Exp(<i>B</i>)</b>
Intercept	-.91***	.06	.40	-.65***	.11	.52
LIE	1.10***	.08	3.00	.77***	.15	2.15
LMX				-.16	.11	.86
LLX				.00	.11	1.00
MIS				-.38**	.11	.69
LIE × LMX				.44**	.15	1.55
LIE × LLX				.21	.15	1.23
LIE × MIS				.04	.15	1.04
$\chi^2$	85.83***			52.39***		
<i>df</i>	14			8		
-2 Log Likelihood	1840.17			1805.31		
% Correct Classifications	63%			66%		

*Note.* *B* = log odds; Exp(*B*) = odds ratio. *N* = 304; *n* = 19. UPB = Unethical Pro-Organizational Behavior; LIE = Leaders' Immorality-Encouragement; LMX = Leader-Member Exchange; LLX = Leader-Leader Exchange; MIS = Teammates' Moral Identity Symbolization.

\**p* < .05.      \*\**p* < .01.      \*\*\**p* < .001.

Table 2

*Identifying Supplementary Influences of UPBs During the Final 10 Trials Using Hierarchical**Logistic Regression*

Predictor	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE</i>	Exp( <i>B</i> )	<i>B</i>	<i>SE</i>	Exp( <i>B</i> )	<i>B</i>	<i>SE</i>	Exp( <i>B</i> )
Intercept	-.91***	.06	.40	-.65***	.11	.52	-.91***	.14	.40
LIE	1.10***	.08	3.00	.77***	.15	2.15	1.37***	.19	3.92
LMX				-.16	.11	.86	.35	.19	1.42
LLX				.00	.11	1.00	.00	.16	1.00
MIS				-.38**	.11	.69	.15	.16	1.16
LIE × LMX				.44**	.15	1.55	-.75**	.26	.47
LIE × LLX				.21	.15	1.23	-.12	.22	.89
LIE × MIS				.04	.15	1.04	-.84***	.22	.43
LMX × LLX							.00	.23	1.00
LMX × MIS							-1.11***	.23	.33
LIE × LMX × LLX							.66*	.31	1.94
LIE × LMX × MIS							1.83***	.31	6.21
$\chi^2$	85.83***			52.39***			7.92		
<i>df</i>	14			8			4		
-2 Log Likelihood	1840.17			1805.31			1760.22		
% Correct Classifications	63%			66%			68%		

*Note.* *B* = log odds; Exp(*B*) = odds ratio. *N* = 304; *n* = 19. UPB = Unethical Pro-

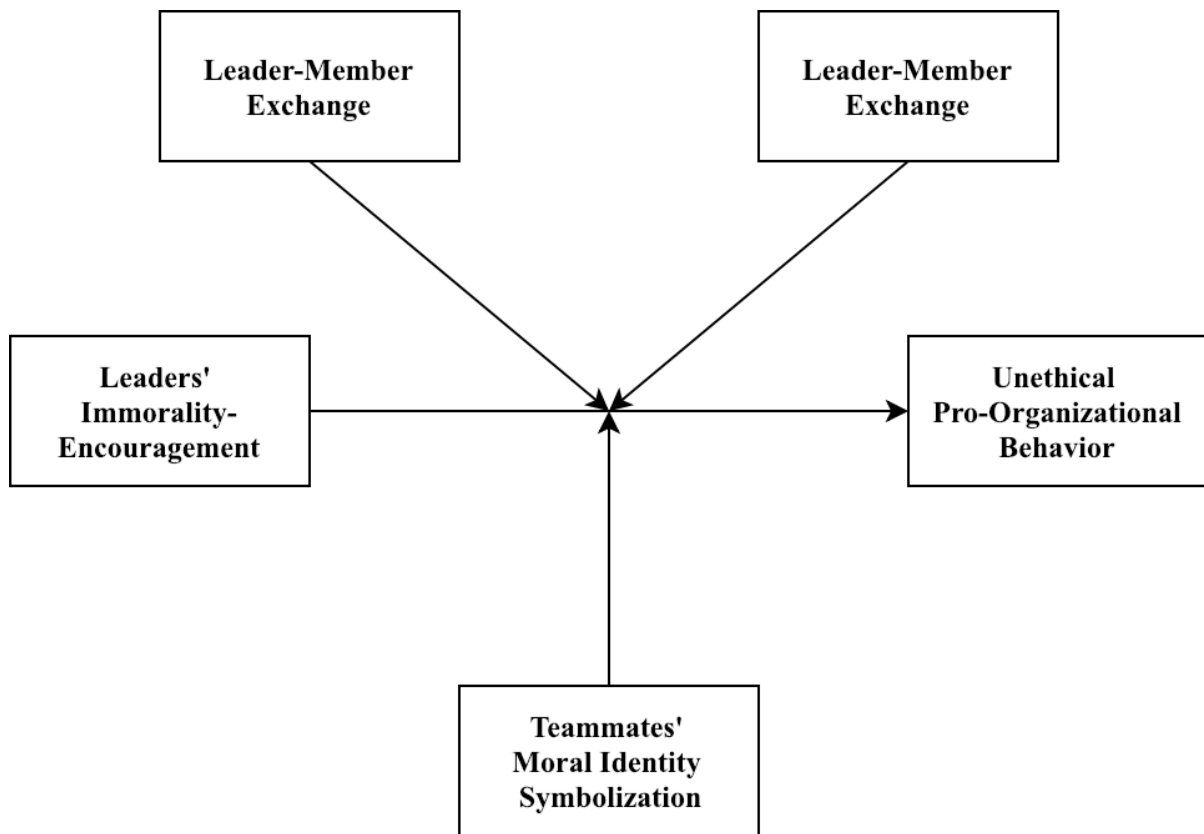
Organizational Behavior; LIE = Leaders' Immorality-Encouragement; LMX = Leader-

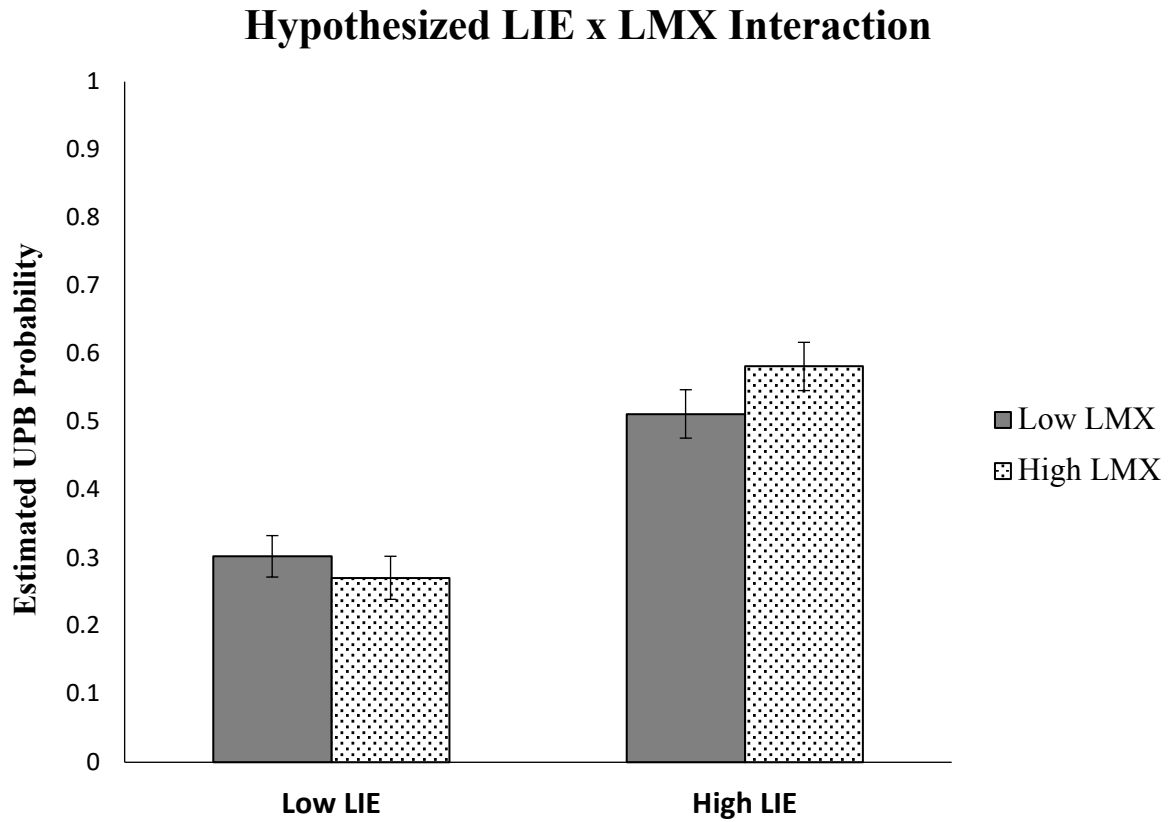
Member Exchange; LLX = Leader-Leader Exchange; MIS = Teammates' Moral Identity

Symbolization.

\**p* < .05.      \*\**p* < .01.      \*\*\**p* < .001.

Figures

*Figure 1.* Hypothesized model diagram.



*Figure 2.* The two-way interaction between LIE and LMX with error bars representing 95% confidence intervals. The x-axis displays the low and high LIE conditions, and the y-axis displays the estimated probability of UPBs from trials 11-20. UPB = Unethical Pro-Organizational Behavior; LIE = Leaders' Immorality-Encouragement; LMX = Leader-Member Exchange.

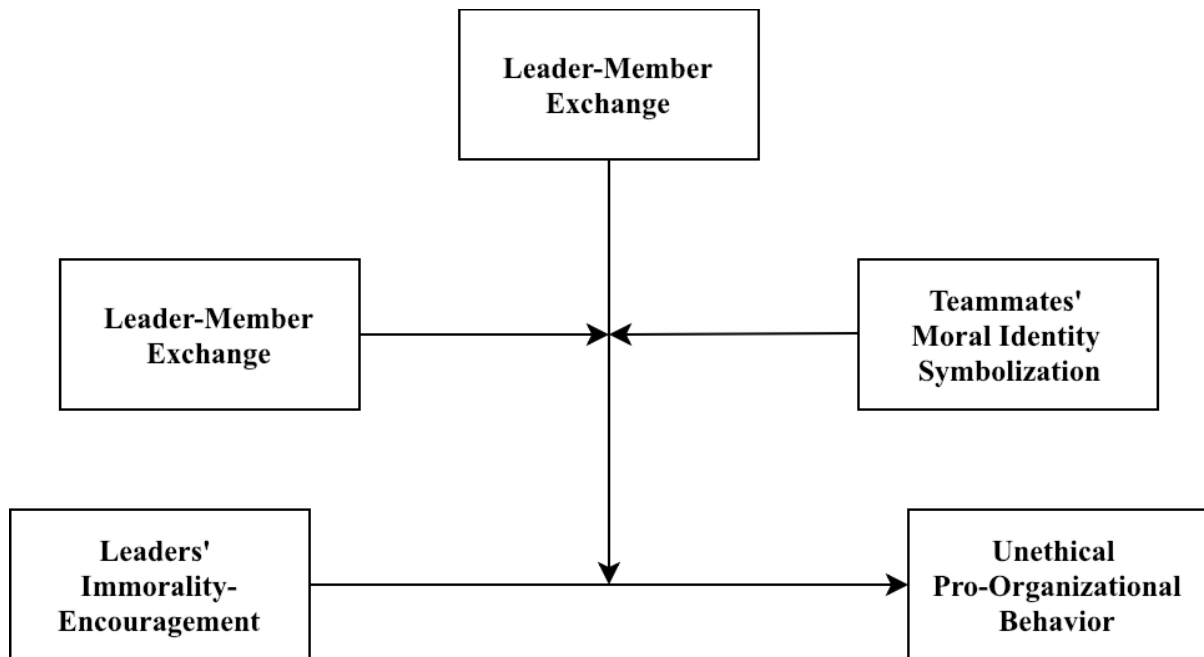
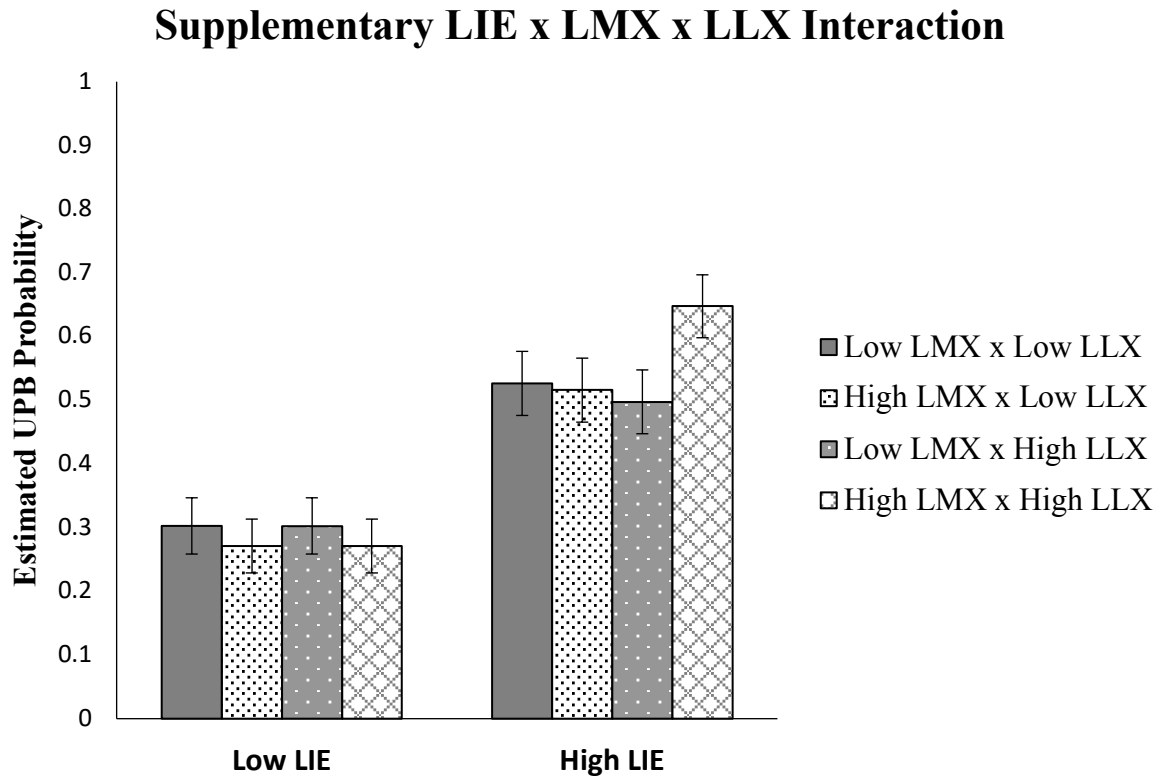
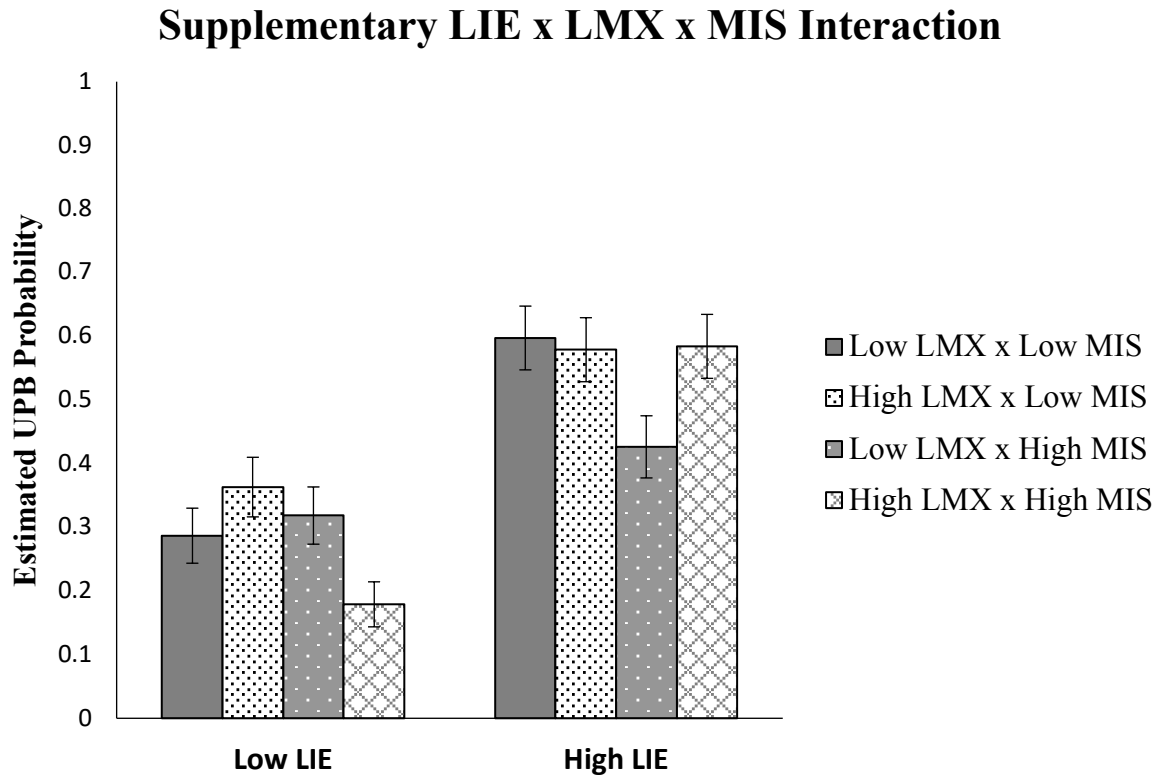


Figure 3. Supplementary model diagram.



*Figure 4.* The three-way interaction between LIE, LMX, and LLX with error bars representing 95% confidence intervals. The x-axis displays the low and high LIE conditions, and the y-axis displays the estimated probability of UPBs from trials 11-20. UPB = Unethical Pro-Organizational Behavior; LIE = Leaders' Immorality-Encouragement; LMX = Leader-Member Exchange; LLX = Leader-Leader Exchange.



*Figure 5.* The three-way interaction between LIE, LMX, and MIS with error bars representing 95% confidence intervals. The x-axis displays the low and high LIE conditions, and the y-axis displays the estimated probability of UPBs from trials 11-20. UPB = Unethical Pro-Organizational Behavior; LIE = Leaders' Immorality-Encouragement; LMX = Leader-Member Exchange; MIS = Teammates' Moral Identity Symbolization.



## Appendix A

## Survey Measures Used Throughout the Experiment

**Pre-Creativity Task Measures****1. Relationship Induction Task (4 items)**

1. What kind of music do you like?
  - i. Alternative
  - ii. Classical
  - iii. Country
  - iv. Electronic
  - v. Folk
  - vi. Jazz
  - vii. Latin
  - viii. Pop
  - ix. Rap
  - x. Rock
2. If you could visit any place in the world, where would you go?
  - i. Bangkok, Thailand
  - ii. Barcelona, Spain
  - iii. Cape Town, South Africa
  - iv. Dubai, United Arab Emirates
  - v. Istanbul, Turkey
  - vi. London, England
  - vii. Paris, France
  - viii. Rome, Italy
  - ix. Sydney, Australia
  - x. Tokyo, Japan
3. Which of the following dream jobs would you prefer?
  - i. Archaeologist
  - ii. Astronaut
  - iii. Detective
  - iv. Doctor
  - v. Lawyer
  - vi. Musician
  - vii. Pilot
  - viii. Scientist
  - ix. Teacher
  - x. Veterinarian
4. Briefly list what you like to do in your spare time, including any organizations you're a member of, if applicable.

**Post-Creativity Task Measures****2. Naiveté Check (2 items)**

1. Given our interest in studying how virtual teammates work together creatively in newly formed teams, we asked everyone to create fake usernames. However, it is possible that you may know the team leader or some of the teammates with whom you just worked. Do you think you know who was on your team?
  - i. Yes
  - ii. No
2. (If yes) Please tell us whom you think the other player(s) are in the box below.

To what extent was *your team's leader*...

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree

**3. Leader-Member Exchange (2 items + 1 filler item)**

1. ...friendly to all team members?
2. ...friendly to you (item 1)?
3. ...similar to you (item 2)?

**4. Leaders' Immorality-Encouragement (1 item)**

1. ...eager to win?

**5. Leader-Leader Exchange (1 item)**

1. ...in good standing with the lab manager, Dr. Fitzgerald?

To what extent do you believe *your teammates* were...

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree

**6. Teammates' Moral Identity Symbolization (1 item + 2 filler items)**

1. ...friendly people?
2. ...creative people?
3. ...caring and compassionate people (item 1)?

To what extent do you believe *you* were...

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree

**7. Filler Questions (2 items)**

1. ...creative?
2. ...a helpful team player?

Please indicate how much you agree or disagree with the following statements using the choices below.

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree

**8. Satisfaction with the Leader (2 items)**

1. Overall, I am satisfied with my team leader.
2. Overall, I am satisfied with the leadership method my team leader used to get our team's job done.

**9. Commitment to the Leader (2 items)**

1. If I do this team creativity task again, I would be happy to have the same team leader.
2. I would be happy to have this same team leader as my supervisor for another team creativity task.

**10. Satisfaction with Own Behavior (5 items)**

1. I am satisfied with the way I acted during this team creativity task.
2. I feel guilty about my performance during this team creativity task (reverse coded).
3. I feel great about my performance on this team creativity task.
4. I feel like I didn't contribute as many creative brick uses as I could have on this team creativity task (reverse coded).
5. I feel like I didn't contribute as much as my team leader hoped I would on this team creativity task (reverse coded).

**11. Miscellaneous Questions (6 items)**

1. Have you ever played a task similar to this for research credit before?
  - i. Yes
  - ii. No
2. How would you rate your ability to speak and understand English?
  - i. Not at all
  - ii. Poor
  - iii. Fair
  - iv. Good
  - v. Excellent
3. If your university and your team score in the top 25% of the team creativity task, and you wish to receive the compensation associated with this, enter your email address here (optional).
4. How old are you?
5. What is your gender?
  - i. Male
  - ii. Female
  - iii. Other
6. Which of the following best describes your ethnicity?
  - i. White
  - ii. Black or African American
  - iii. Hispanic or Latino
  - iv. Asian/Pacific Islander
  - v. Native American or American Indian
  - vi. Other

