

## ABSTRACT

Title of Dissertation: POWER AND STATUS IN JUDGING AND PUNISHING IMMORALITY

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This research offers a framework that explains how observers respond to moral violations when considering the amount of power and status held by violators. It follows the group processes literature on the characteristics of power and status. A proposed theory describes that prior to witnessing moral violations, observers develop moral expectations about potential violators on the basis of the levels of power and status attributed to the violators. When the moral violations occur, the moral expectations about the violators, as well as the resources available to the violators, in turn, affect the judgment and punishment decisions of the observers toward the violators. An online vignette study and a laboratory experiment test my predictions based on the proposed theory by varying the relative levels of perceived power and status between evaluation targets (i.e., violators) and evaluators (i.e., observers).

Vignettes used in Study 1 described that observers had lower, equal, or higher power/status compared to violators in hypothetical scenarios. In Study 2, observers

were assigned with either lower or higher power/status relative to violators in a group interaction setting in which the observers experienced differential risks of retaliation from the violators. Both studies assessed expectations of observers about the moral character of potential violators before exposing the observers to details of a moral violation committed by the designated violators. Punishment decisions of observers examined in Study 1 were attitudinal measures while those in Study 2 were based on behavioral reactions.

Results indicate that prior to the immoral incident, observers developed lower moral expectations about violators with greater power and higher moral expectations about violators holding greater status. However, these expectations did not always translate into moral judgment and punishment. While viewing the violation as immoral regardless of power/status held by the violators, depending on the context, observers might or might not penalize the violators differentially across the power/status spectra. Fears of retaliation from violators who utilized resources attached to varied power and status positions did not affect how observers punished the violators. Therefore, results of the studies suggest a resilient power and status hierarchy despite the disruption of moral norms.

POWER AND STATUS IN JUDGING AND PUNISHING IMMORALITY

by

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## Dedication

To all the beautiful and strong lives I've met and those I haven't.

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## Chapter 1: Introduction

People use moral values to govern behavior and construct an understanding of what is right and wrong in the social world. When witnessing an immoral incident, observers may experience negative emotions and feel motivated to take action to restore the moral balance. Importantly, the judgment and response of the observer to a particular moral violation can be greatly affected by the levels of power and status held by the violator. The Harvey Weinstein sexual abuse scandal is an instructive example. In the wake of the Hollywood producer's downfall, scores of sexual misconduct accusations emerged against prominent male figures in the entertainment, political, and corporate industries. Most of these alleged abusers wielded tremendous power and influence at the time the offenses were committed, enjoying a high social standing prior to the revelations. As the responses of observers can potentially make a gigantic difference in both addressing concerns of the victims and devising remedies for sexual exploitation, a critical question emerges: why had the individuals who had been made aware of the abuses not taken serious or any action at all? Those subject to the power and status of the violators might have chosen silence amid fears of retaliation. Others not directly connected to the violators could still have been influenced by the high social standing, and thus did not react critically enough to the incidents.

The observer's reaction to immorality is the focus of my dissertation. According to the example above, it is necessary to differentiate between the effects on observers who simply perceive and on those who personally experience the power and status of violators. While the study of perceived power and status is equivalently important in

this context (e.g., the public's reaction), my dissertation centers on the judgment process of observers who are situated in immediate power and status relations with violators. Such definite relations put the observers in a position to be affected by the violators or to be more likely to witness an immoral action.

The aims of my dissertation are three-fold. First, I ask do power and status affect observers of moral violations differently? Second, I explore how the relative power and status between observers and violators translate into responses to immorality. Third, I evaluate how and why observers would punish when they are subject to the power and status of violators.

I argue that the moral judgment process develops in multiple layers, a process in which moral expectations, as well as resources accessible to individuals at varied power and status positions, all play definitive roles. A wealth of investigation indicates that variable amounts of power and status are associated with different behavioral outcomes (Blader and Chen 2012; Blader, Shirako, and Chen 2016; Fast, Halevy, and Galinsky 2012), and that incongruities between expected and perceived behavior cause cognitive dissonance for the observers of such behavior (Festinger 1957). With respect to the previous example, before learning about the sexual abuse and assault allegations, did colleagues or employees expect those high-profile men to act morally in their day-to-day business? Did such expectations affect moral judgment and sanctioning preferences once the immoral activities were realized? Further, were the observers' choices of corrective action taken (or lack thereof) influenced by the resources available to the violators with high power or high status?

My dissertation offers a framework to describe the ways power and status affect moral judgment and punishment. I propose that people develop moral expectations about an observation target on the basis of the levels of power and status attributed to the target person. When the observation target commits a violation (i.e., becomes a violator), the moral expectations about the violator, as well as the resources attached to the power and status positions that the violator retains, in turn, affect the judgment and punishment decisions of the observer toward the violator. Importantly, understanding the moral implications of power and status can provide a comprehensive approach to addressing abusive behavior and safeguarding vulnerable individuals from future cruelty.

To aid in the achievement of these goals, my dissertation first seeks to investigate the association between power, status, and morality. Research has established a link between expectations of morality and status, demonstrating that people tend to expect high-status individuals to treat others fairly (Willer 2009). Conversely, although the act of using power is perceived as selfish and greedy (Willer, Troyer, and Lovaglia 2005; Willer et al. 2012), scholars have yet to probe the impressions and moral expectations about powerful individuals prior to observing power use. Additionally, the relationship between moral expectations and lack of power or status has received insufficient attention. When compared to a perceived medium level, it remains unclear whether, and to what extent, the perceived least amount of power and status affect an observer's moral expectations, or whether they have inverse effects to high power and high status respectively.

Answers to these questions become more important when it relates to comparing the effects of power and status on moral expectations. While the literature indicates a potential negative association of morality with higher power and a positive association with higher status, it is unclear how the two constructs effect changes when they are examined together. As power and status typically vary together yet appear to produce opposing moral expectations, the fundamental inter-relationship between power and status represents a significant topic of inquiry.

My dissertation explores the resilience of power and status hierarchies despite disruptions of moral codes. Although moral expectations are useful when helping to make sense of observed action and provoking sentiments (Haidt 2012), do judgment and emotions necessarily translate into observers' sanctioning behavior? The decision to punish violations is a function of social, psychological, and normative factors. With the incorporation of moral expectations, I further examine how power, influence, and other resources available to the violators affect the degree of punishment they may have imposed on them.

With an emphasis on moral expectations, I propose a theory that aims to explain the effects of power and status on moral judgment and punishment. To test my proposed theory, I conducted two independent studies. Study 1 adopted an online vignette design that developed associations of moral expectations with power and status, as well as serving as a basis for the effects on responses to moral violations. Study 2 experimentally manipulated power and status in a controlled, laboratory environment, rigorously investigating the sanctioning behavior of observers who witnessed moral violations and were exposed to differential risks of reprisal from violators. While Study



I explored two contexts where the observers were perceiving or experiencing the power and status of the violators, Study 2 probed into the latter form where the observers were directly subject to the power and status of the violators.

In general, my findings demonstrate that while higher-status individuals are expected to carry higher moral values than those with lower status, the association of moral expectations with power is weak. As a result, when considering both effects of power and status, a person's status more robustly predicts the moral expectations about this person. When witnessing moral violations, observers see the violations as unacceptable regardless of the levels of power and status held by the violators. Additionally, observers are likely to punish higher-power violators and lower-status violators more harshly than other types of violators. Furthermore, differential risks of retaliation from violators do not appear to affect how observers react to the violations.

The first chapter lays out the questions, motivation, and contributions underlying my dissertation research. Chapter 2 reviews research on power and status in groups, and their relationships with morality. In Chapter 3, I discuss the literature on moral judgment and punishment with the incorporation of moral expectations to describe power and status effects. Chapter 4 briefly summarizes the predictions and rationales developed in the previous two chapters. Chapter 5 describes the vignette design, results, and a discussion of Study 1. Chapter 6 outlines the laboratory experiment, results, and a discussion for Study 2. In the end, Chapter 7 provides a general discussion of my findings with implications and limitations as well as directions for future research.

## Chapter 2: Moral Expectation for Power and Status

People often organize and stratify in groups on the basis of power and status. Although these two constructs are correlated, the ways they shape behavior and perception fundamentally differ. Drawing from the group processes tradition, I will briefly review the concepts of power and status as well as the relationship between the two constructs. I will then discuss the associations of power and status with moral expectations.

### Section 1 Power

Consistent with the group processes research, I define power as the ability to achieve goals despite the wishes of others (Weber 1968). The use of power involves managing both tangible and intangible outcomes, with power deriving from the access to valued resources such as goods and information (Lovaglia 1999). An extreme example would be a monopoly having exclusive control over a type of commodity or service. This person possesses an immense advantage over everyone else in negotiating valuation and supply of that commodity or service because there are no substitutes or alternative trading partners. Therefore, the monopoly can ask for caches of jewelry, dinners with celebrities, or even a nuclear launch button in exchange for a piece of the valued supplies.

The capability to acquire these favorable ends often occurs at the expense of others, however. Power is based on modifying the conduct of others in a desirable manner instead of changing one's own conduct. Specifically, having power enables an

individual to overcome the resistance of others and be less dependent on outside cooperation (Emerson 1962). Following the example above, parties interested in obtaining a portion of the monopolized resources may go to their great lengths to lie or steal to satisfy the monopoly. On the other hand, the monopoly may not be concerned about potential opposition from the interested parties because s/he is able to resolve the conflict or simply find other parties who are willing to cooperate.

According to Emerson's (1962, 1972) understanding, to have power is to use power. Therefore, a person with power shall exercise it no matter how legitimately, infrequently, or discreetly. And yet, by exerting power, the person of power strengthens their dependence on the recipient and the power relation becomes contentious. Experimental evidence demonstrates that power differences in network exchanges induced negative emotions in low-power individuals (Lovaglia 1995; Willer, Lovaglia, and Markovsky 1997). Additionally, these low-power individuals assembled into a group, collaborating to reverse their power disadvantage when coalition opportunities arose (Simpson and Macy 2001). As a result, power relations can seem paradoxical for making individuals reliant on the power use while producing spirals of conflict between them.

Moreover, to effectively impose their will on others, a powerful person is able to apply sanctions or produce credible threats of exercising such sanctions. Power can be utilized to either reward or punish others, with both occurrences making the recipients more dependent on and further subject to the utilized power (Molm 1990). For instance, year-end bonuses may be viewed as favors offered to employees by employers. On the other hand, such bonuses could be withheld or cut by the employers

without consulting with the employees. In return, these employees are likely to become more motivated to maintain employment and accept harsher working conditions.

Although coercive measures such as penalties and threats are typically unfavorable, the power to punish may still be utilized as a last resort to incentivize compliance (Molm 1997). With respect to the previous example, the employers can criticize, demote, or ultimately dismiss the employees. Accordingly, both the employees who witness and experience the punishment are likely to follow through with the guidance and demand on the job. Nonetheless, depending on the administration of punishment, these punitive strategies can cause conflicts as well as detrimental psychological effects in those suffering from the power use. For instance, imposing punishment on exchange partners could provoke hostility and animosity (Lawler 1986; Molm 1991). However, a degree of consistency in administering the punishment may help alleviate some of the negative reactions (Molm 1994). In summary, without proper implementations, antagonistic behavior and negative emotions are likely to increase with the frequency and magnitude of punishment.

Power should be viewed as a relational concept, as people must be situated within social relationships to possess and demonstrate power. It is also relational in the sense that each individual has a certain amount of power compared to others. Therefore, power is not a personal disposition, but a construct attached to the structural position one holds in a social hierarchy (Cook and Emerson 1978; Skvoretz and Willer 1993). Its capacity hinges on the context and social locations and may not exert the same control outside of the relationship. For instance, a supervisor is granted power to

oversee a group of subordinates in the workplace, but with the same title, the supervisor cannot give orders to employees in different organizations.

Taken together, a power relationship can appear self-contradictory. It grants higher-power persons the ability to achieve what they desire. Those conform to power may have to alter their behavior though not genuinely or out of intrinsic motivations (Harsanyi 1962). Even if the relationship may seem beneficial at first, as both higher-power and lower-power parties grow more dependent on each other through power use, tensions are likely to escalate.

### Section 2 Status

Following the group processes tradition, I define status as respect, prestige, and honor regarded by others (Berger, Cohen, and Zelditch 1972; Thye 2000). Expectation states theory describes a process of status formation in groups with collective goals or tasks. When certain group members are expected to offer valuable contributions, they will be encouraged to participate more often and their performances will be evaluated more favorably than those of others (Berger et al. 1977; Correll and Ridgeway 2003). In a sense, people confer status on the basis of perceived competence: they confer respect to valued group members whose opinions and actions then have influence over the rest of the group.

As a theoretical extension, status characteristics theory explains the ways expectations come to be organized around individual attributes (Correll and Ridgeway 2003). Specific status characteristics refer to skills or expertise tied to achieving a goal, such as speed in a relay race. Diffuse status characteristics describe general attributes,

such as gender and race, that are in fact remotely associated with ability yet are considered by group members to be highly associated with those abilities. In recent years, research applying the program of expectation states theory has broadened the scope of conditions beyond task-oriented and group-based settings. For instance, Correll and colleagues (2007) identified motherhood as a disadvantaged status characteristic at job recruitment. Specifically, when evaluating a pool of candidates for the same position, participants in the study perceived mothers as less competent and recommended mothers less often for hire than other types of job applicants.

The status order in groups is difficult to challenge for multiple reasons. First, because status formation often takes place unconsciously, people may see both of their attitudinal and behavioral changes as genuine. In other words, those occupying a lower status rank are less resistant to the influence of higher-status persons relative to their peers. Second, compared to the lenient judgment that higher-status individuals receive, those with lower status tend to face double standards which demand superior performances in order to be evaluated as equally competent (Foschi 2000). Therefore, moving upward in a status hierarchy seems harder for those starting out at a lower standing. Additionally, their questioning about individuals at higher-status positions may not be taken seriously. Third, legitimacy works as a self-fulfilling prophecy that prompts people to believe that the characteristics they draw upon appropriately assign others and themselves into different positions (Ridgeway and Berger 1986; Ridgeway, Johnson, and Diekema 1994). As a result, the status formation process in groups is constantly reinforced by members of the group.

While the theoretical program largely assumes a competence-based status attainment process, increasing evidence indicates that perceived dominance and prosociality also affect how people accord status. Indeed, individuals adopting a proactive and assertive behavioral style are found to wield considerable influence in group interactions (Cheng et al. 2013; Kilduff and Galinsky 2013). Previous investigations demonstrated that people award status to those who cooperate with others and make altruistic sacrifices for groups; in turn, higher-status members feel further encouraged to reciprocate (Hardy and Van Vugt 2006; Willer 2009). Status differences also facilitate collective action. Specifically, compared to low-status individuals, high-status individuals are more likely to make initial and costly contributions to groups as well as influence others into following their lead (Eckel, Fatas, and Wilson 2010; Sell 1997; Simpson, Willer, and Ridgeway 2012). In short, people attain status through a multitude of diverse routes.

In general, relative to the unequal distribution of power, the status hierarchy is rather stable and tenacious. Higher-status members tend to perform frequently and receive positive feedback. Lower-status individuals may genuinely believe in the perceived competence and thus follow the lead of those holding greater status. Furthermore, their resistance to the influence of a high status is likely to be unsuccessful.

### *Section 3 Relationship between Power and Status*

Power and status are inter-related in the sense that power can be utilized to attain status and vice versa. As evidenced by previous investigations, power may be translated into status by three routes. First, those with power are likely accorded high

status for proven competence in accumulating resources (Willer et al. 2012, 2005). The demonstrated control over valued supplies is considered to reflect one's skills in acquiring those resources. An example would be the greater respect conferred to executive officers compared to their assistants. Second, high-power individuals can use their accumulated resources to earn respect and status by making philanthropic gestures (Willer et al. 2012). The rationale is that an abundance of possessions at one's disposal simply affords one to obtain greater status. Third, utilizing power with constraint by relinquishing substantial profits may be seen as prosocial and acting in the interest of others (Willer et al. 2012). Logically, powerful persons can achieve what they desire without making concessions. Therefore, it appears to be a praiseworthy and respectful act to consider the wishes of others and let go of their own favorable ends. In summary, in this context, status is a reward to those who make good use of power.

Likewise, status is often utilized to obtain power. In a meritocratic system the predominant belief is that positions are assigned on the basis of competence. That is, people are installed with power given their proven abilities. Indeed, educational credentials typically serve as an evaluation instrument for selecting and appointing individuals a responsibility and authority. Moreover, the ties that people want to establish with those of high status can be treated as a type of valued resources. Studies show that associational preferences for high-status individuals would provide these individuals with power advantages in exchange tasks (Thye 2000; Thye, Willer, and Markovsky 2006). Additionally, by seeking access to high-status groups in various settings, low-status individuals became dependent on those who apparently were able



to offer more valuable connections (Sauder, Lynn, and Podolny 2012). As a result, people holding higher status are often accompanied by higher power.

While the levels of power and status typically align, there are instances where the two constructs are imbalanced. An example is the current labor market where the amounts of power and status vary depending on occupation. For instance, a musician is viewed as highly respected (i.e., high status) but powerless, whereas a prison guard is considered to be powerful but endowed with relatively low status (Fragale, Overbeck, and Neale 2011; Rogalin, Soboroff, and Lovaglia 2007). It is likely that a musician's chief talent does not involve managing resources and that a prison guard does not exert power for a purpose that the society regards as respectable.

Despite these few conceivable exceptions, power and status are highly correlated with each other. While basic questions persist in the differentiated mechanisms surrounding power and status, it is important to investigate both elements in one setting. By examining one construct while controlling for the other, our investigation will be able to limit the interaction while manipulating the levels of power and status ascribed to observation targets.

#### Section 4 Moral Expectation

Morality refers to a set of values governing individual behavior as well as a comprehension of what is right and wrong. Specifically, moral values offer guidance on decision-making processes at the individual level and a script for social interactions. Morality communicates the types of experience, intention, conduct, and relationship that are deemed acceptable by a community.

While the definition of morality varies by culture and context, being just and caring appears to be a common foundation of human interaction (Haidt 2012; Hauser 2006). The principle of care praises kindness and condemns harmful acts, and the principle of justice promotes cooperation, impartiality, and a creation of social consensus (Haidt 2012; Hegtvedt and Scheurman 2010). An example of the principle of care would be tending to the needs of rather than hurting children and the elderly. In addition, an example concerning the principle of justice is advocating for equal opportunities for humans to thrive.

When these moral values are exemplified as individual characteristics, a moral person is considered to be honest, helpful, generous, fair, compassionate, and selfless (Aquino and Reed 2002; Stets and Carter 2012). Others would also expect this person to demonstrate these moral traits in conduct. Therefore, individuals would develop higher levels of moral expectations about those whom they believe to think and act in a moral manner.

#### Moral Expectation for Power

Previous investigations have established a connection between morality and power with respect to primed psychological state and conduct. Specifically, research documents that a mindset of having power tends to make people act in a selfish and greedy manner, pay less attention on the concerns of others, and treat others as a means to an end of their own interests (Anderson and Berdahl 2002; Fiske 1993; Galinsky et al. 2006; Gruenfeld et al. 2008; Keltner, Gruenfeld, and Anderson 2003). In relation to moral action, an increased sense of power is found to be associated with deception,

cheating, stealing, and moral hypocrisy (Boles, Croson, and Murnighan 2000; Lammers and Stapel 2009; Lammers, Stapel, and Galinsky 2010; Yap et al. 2013). Accordingly, feeling powerful encourages behavior that is unlikely intended to promote social well-being.

Regarding the evaluation of power use, individuals subject to power may develop negative moral evaluations against those who wield power. Depending on the feature of exchange, people occupying lower-power positions in exchange networks are likely to perceive their more advantaged partners as unfair (Molm, Peterson, and Takahashi 2003). It is partly because certain contextual features highlight self-serving motives for exerting power, intensifying conflicts between parties at various positions of the network.

Furthermore, simply observing the utilization of power could lead to similar attributions. Willer et al. (2005) asked participants to observe and assess negotiations in different types of exchange activities. The authors found that high-power individuals were viewed as selfish and greedy when their structural advantages were more pronounced as well as when unnecessarily utilizing power to exclude others from the exchange. In a follow-up study where participants also observed negotiations, high-power individuals again were rated as more selfish and greedy as well as less cooperative and generous than their low-power counterparts (Willer et al. 2012). Moreover, the effect of power use on perceived selfishness was especially prominent when high-power individuals reaped maximal levels of profits during the exchange. This series of investigations offer two developing conclusions. First, observers may well be aware of the immense power advantage that one party can have over the other.

Further, they would consider it to be less moral to exploit such power for excessive gains at the expense of others.

Research has so far examined the moral evaluation of behavior in which participants inferred immorality after observing abuses of power. However, less is known regarding how observers expect powerful individuals to behave. That is, prior to viewing any action, do people expect those with greater power to act immorally? Furthermore, given the potential association between lower morality and higher power, it is still unclear whether persons who have the least amount of power are expected to act relatively morally. In other words, instead of simply being a target of comparison for higher power, whether or not owning a level of power lower than the medium level has an effect on moral expectations. Research indicates that feeling low power may be correlated with the capability to empathize with others who share similar experiences (van Kleef et al. 2008). As a result, compared to those with equal power to reference targets, low-power individuals could receive a boost with respect to moral expectations as they lack the ability to abuse power and tend to put themselves in the places of others.

If utilizing power produces negative moral perceptions, it is possible that, prior to interactions, observers develop low moral expectations about powerful individuals who are capable of exploiting power at the cost of others. Additionally, having the least amount of power may have a neutral or positive effect on moral expectations.

#### Moral Expectation for Status

Research has laid out much of the groundwork for linking morality to status. Theoretically, a moral component that concerns care and justice is rooted in the status

attainment process (Bai 2016). As discussed earlier, status reflects the perceived value of individual contributions to groups, which involves realizing beliefs of competence. By taking action to demonstrate one's competence, others would consider the action to be prosocial given that it advances the agenda of the group. Further, when high-status individuals do respond to expectations that they should contribute more, their actions would be viewed as much more beneficial to the collective goal. After all, highly competent persons without opportunities to take any action would not be able to exert influence in the first place.

A reinforced moral attribute surrounding the status order is also found in empirical studies. Specifically, demonstrating selflessness, generosity, commitment, or group-oriented motivations helps individuals gain status (Anderson and Kilduff 2009; Bai 2016; Ridgeway 1982); the status reward then encourages further contribution to advancing the well-being of others (Restivo and van de Rijt 2012; Simpson et al. 2012; Willer 2009). Moreover, real-life examples would be how the society awards status to individuals who display exemplary conduct. For instance, the purpose of bestowing service awards is to honor not so much the sheer quantity or quality of the services as the compassion and benevolent motives.

Regarding responses of those with a low status, negative evaluations and sentiments against high-status persons are likely to be reduced. Being voluntarily followed by others, high-status individuals rely on influence instead of reward or coercion to change both the attitude and behavior of others (Rashotte and Webster, Murray 2005). Therefore, people tend to believe that those of higher status are acting in the collective interests of groups. Even if they identify misbehavior of these high-

status individuals, depending on the severity of the incident, people may dismiss it without further consideration.

A series of studies in both the workplace and group exchange games found that individuals who consistently offered favors and accommodated the needs of others were both conferred high status as well as viewed as generous and helpful (Flynn 2003; Flynn et al. 2006). Results from additional laboratory experiments demonstrate that when group tasks allowed for the exploitation of partners, participants were more likely to cooperate with higher-status partners compared to lower-status partners, suggesting that higher-status persons are expected to act fairly (Willer 2009). In a sense, individuals tend to not only give status to those who act morally but also expect them to consistently behave in a moral manner.

Despite remarkable insight into the relationship between higher status and moral expectations, a comparable focus has not yet been placed on how individuals perceive persons with the least amount of status. Logically, having a lower status would lead to moral expectations lower than the expectations resulting from a higher status. However, it is unclear whether or not a lower than medium level of status affects moral expectations. Potentially, moral expectations may not differ between individuals with low status and those with equal status to reference targets. On the other hand, it is plausible that observers expect persons who have the lowest level of status to act immorally as it may be the primary reason leading to their low status attribution.

To conclude, both the program of expectation states theory and empirical evidence indicate a positive association between moral expectations and status. On the

other hand, it remains uncertain that having the least amount of status has a neutral or negative effect on moral expectations.

#### Comparing Effects of Power and Status on Moral Expectation

In summary, the literature indicates that potentially higher power is associated with lower levels of moral expectations and that higher status is associated with higher levels of moral expectations. However, less clear is how they interact to affect such expectations given that power and status are highly correlated with each other and appear to produce countering effects. In other words, when both effects are in place, which of these two constructs would affect moral expectations to a greater extent?

When various amounts of power and status are broken down by both high and low levels, it is plausible that observers expect individuals having high power with low status to be the least moral. While higher power is associated with lower morality, this negative effect would probably not be compensated by the addition of a low status. Additionally, those having high status with low power may be expected to act the most morally. Logically, while higher status often correlates with higher morality, this positive effect is not likely to be negated by adding a low power.

Following the argument above, an important question arises in terms of comparisons between high power with high status and low power with low status: is power or status more predictive of moral expectations. Studies on moral action suggest a stronger effect of power compared to status with respect to encouraging selfish, unfair, and demeaning behavior (Blader and Chen 2012; Dubois, Rucker, and Galinsky 2015; Fast et al. 2012). That is, even with high status, high-power individuals tend to behave

immorally.

Conversely, experiments on positive impressions indicate that, relative to power, status carries greater weight in shaping the moral expectations of others. Specifically, Fragale et al. (2011) found that, when asked to evaluate observation targets at varied power and status positions, participants viewed high-status individuals as cordial, cooperative, and agreeable, regardless of power level. In addition, when asked to imagine hypothetical interactions, participants expected partners with high power and high status to behave appropriately as well as to accommodate and prioritize the needs of others. Taken together, despite their ability to abuse power, persons with both high power and high status are potentially perceived as moral as those with low power and high status.

Indeed, high-power persons do not necessarily take corrupt action (DeCelles et al. 2012; Rus, van Knippenberg, and Wisse 2012). Power is attached to positions and serves as a means to ends, and therefore does not directly speak about one's moral character. Even with tremendous power, individuals can exercise power with reasonable and moral constraint. By contrast, status is implied as a robust reference to morality because status can derive from moral attributes (Bai 2016). Moreover, status is accorded to individuals who contribute to the well-being of others, as a display of care and justice. Therefore, more than power, status appears to be a stronger predictor of moral expectations.



## Chapter 3: Reactions to Moral Violations by Power and Status

Drawing from the literature reviewed in Chapter 2, I propose that moral expectations will be: (1) negatively associated with power, and (2) positively associated with status. These proposed associations will be used to develop my arguments and hypotheses regarding how observers judge and punish moral violations committed by individuals with variable amounts of power and status.

### Section 1 Witnessing Immorality

Witnessing moral violations triggers a broad range of responses from observers. They may experience moral rage (i.e., mixed feelings of anger and disgust) as well as the desire to compensate victims and punish violators (Kay, Jost, and Young 2005; Leliveld, Vandijk, and Vanbeest 2012; Skarlicki and Kulik 2004). By penalizing individuals who break moral codes, observers affirm both their moral identity and communal values, reduce disturbed feelings for the self, and prevent future violations (Fehr and Fischbacher 2004; Stets and Carter 2012). In a sense, these punitive actions are imperative for the restoration of a morally balanced social world.

With respect to witnessing and addressing immoral incidents, research finds a variety of factors in influencing an observer's emotional and behavioral reactions. First, having resources to guard against retaliation from violators or sharing a social identity with victims often motivates observers to intervene and redress suffering (Hegtvedt and Scheuerman 2010). The whistle-blower protection for reporting abuses is an example. In addition, the intensity of observers' reactions may increase with the extent of a

severe and repulsive nature<sup>1</sup> of violations (Cushman, Young, and Hauser 2006). Moreover, if observers attribute the immoral behavior to a deliberate intent, they are likely to experience outrage and favor severe sanctions for the violator (Darley and Pittman 2003). An example would be the public outcry over cases of data breaches by service-providers where they knowingly share confidential information with unauthorized or untrusted third parties. Conversely, a sense of affiliation with a violator reduces the likelihood of moral concerns (Tarrant et al. 2012). For instance, people tend to side with those they know or trust in moral disputes. As a result, in the investigation of judgment and sanctions made by observers, perceptions of and relationships with moral violators are critical in predicting the behavioral outcomes for observers.

Several studies have examined how a violator's power and status attributes may shape an observer's reaction to witnessed immoral behavior. However, when observing individuals at varied positions of power and status, the factors influencing the development of expectations and perceptions regarding moral behavior are less known. As a result of this knowledge gap, several important questions arise: (1) prior to violations, do observers expect violators with varied power and status levels to act differently in terms of moral manners? (2) To what extent do these expectations affect observers' attitude and behavior in response to the violations? In an attempt to address these questions, this dissertation examines the intersection of power, status, and moral expectations in shaping the moral judgment and punishment decisions of observers.

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<sup>1</sup> I expect that uncertainty and responsibility will affect moral judgment because while ambiguity leaves room for interpretation, an outright violation appears purposeful. However, because the scope of ambiguity effect is beyond the capacities of the present research, I will focus on the conspicuous nature of violations.

## Violators with Power

Consistent expectations and perceptions can reinforce biased assumptions. Individuals tend to adopt essentialist views when a bias is confirmed and otherwise attribute to contingent factors when the bias is disconfirmed (Allport 1979; Jackson, Sullivan, and Hodge 1993). Such causal attribution process is likely to result from part of the mental efforts to avert cognitive dissonance by managing congruent ideas and values (Festinger 1957). For instance, a comment of “running in the family” refers to an internal cause. On the other hand, people are likely to treat evidence contrary to a particular issue they support or oppose as “exception.” Therefore, with respect to explaining human behavior, individuals are inclined to seek and interpret information that upholds preexisting beliefs.

In the case of immoral behavior, observers are likely to conclude that the violator is prone to misdeeds as anticipated if they are already biased against the violator. On the other hand, observers would attribute to contextual factors if they do not expect such wrongdoings of the violator. Once observers ascribe the conduct to the violator’s moral character, they become less likely to perceive the behavior as accidental and more likely to enact punitive measures following the violation (Darley and Pittman 2003). For example, a habitual offender may face elevated legal charges relative to a first-time offender when the recidivism is seen as a predictor of future offenses.

The prediction of moral expectations for power developed in Chapter 2 states that observers will expect higher-power individuals to act less morally compared to lower-power individuals. Following the argument, when confronted with high-power

violators relative to low-power violators, observers are thus more likely to associate the wrongdoing with a propensity for immorality as a result of confirmed biases against those holding greater power. Observers would further conclude that the immoral conduct showcases the true character of high-power violators. Considering the violation to be intentional, observers may then prescribe harsher judgment and stronger punishment for these high-power violators compared to low-power violators.

As a result, I propose that with lower levels of moral expectations about higher-power individuals, observers will respond with both harsh judgment and punishment when these powerful individuals act immorally. Comparatively, observers will react leniently to the misconduct of lower-power individuals.

#### Violators with Status

As opposed to violators of power, responses of observers to violators who occupy different status positions are rather challenging to predict. Recall that in Chapter 2, I hypothesize that observers will expect higher-status persons relative to lower-status persons to behave in a moral manner. Accordingly, given the mechanism of psychological consistency, observers may seek contextual reasons to reconcile disconfirmed beliefs for high-status persons who commit moral violations. Additionally, the immoral conduct may not be perceived as inappropriate unless justifications for the behavior are clearly invalid (Massey, Freeman, and Zelditch 1997). On the other hand, such an inconsistency between expectations and perceptions can backfire.

Indeed, violators may be sanctioned for counter-normative behavior, and there is no exception for those with high status. In a theoretical discussion, Giordano (1983) argues that observers would punish high-status individuals for misconduct; the greater the extent to which these high-status individuals fail to fulfill expectations, the more likely they would be to receive punishment. A series of experiments demonstrated that observers placed differential judgment between high-status and low-status violators for deviating from their respective moral expectations depending on situational context (Niedermeier, Horowitz, and Kerr 2001). Specifically, the researchers found that high-status physicians were rated guiltier than their low-status counterparts when they expressed remorse after an ethical breach, whereas results were reversed when no remorse was shown. Logically, the remorseful act potentially undermines the expected capabilities of high status but is compatible with that of a low status ranking.

Additional studies revealed the importance of situations where the violation contradicts beliefs of competence in the violators held by observers (Shaw and Skolnick 1996; Skolnick and Shaw 1994). To be precise, when a violator is regarded as highly competent in a profession, professional misconduct may draw stronger criticisms and penalties for the violator compared to wrongdoings in a non-professional setting. It could be due to that observers consider the high-status violator to be exploiting conferred influence. For example, the use of drugs may seem less excusable for an athlete in competitive sports than in regular social gatherings. Furthermore, the doping scandal would appear unforgivable if an all-star athlete instead of a mediocre athlete is involved. Therefore, following the argument, if the immoral behavior does

not concern perceived competence, a high-status violator would potentially be punished less harshly relative to a low-status violator.

Regarding perceived immorality toward violations, observers are likely to see the misconduct of high-status individuals as a breach of trust, with the developed feelings of *betrayal* resulting in harsh judgment (Giordano 1983; Wahrman 1970). Compared to low-status violators, observers may find the conduct of high-status violators less acceptable because they conferred respect to those with high status but experienced greater discrepancies between perceptions and expectations. As a result, observers could experience conflicting emotions when deciding how to deal with high-status violators whose behavior runs counter to their expectations.

Researchers have argued that, however, due to the high social standing of high-status violators, as long as the moral violation does not appear hypocritical, poorly justified, or firmly tied to negative intentions, observers' sentiments may not successfully translate into severe penalties (Effron and Monin 2010; Giordano 1983; Massey et al. 1997). Observers could defend their moral expectations by disassociating the misconduct from the moral character of violators. Indeed, high-status individuals are able to retain influence if the deviation is viewed as an isolated incident (Wagner 1988). Given judgment about the wrongdoing, observers would not necessarily consider the act to be reflective of violators' nature. Therefore, sanctions to high-status violators may not be warranted. Altogether, I predict that observers will view the behavior of higher-status violators as more immoral but favor weaker punishment compared to lower-status violators.

## Section 2 Fears of Retaliation

The decision to sanction is a function of social, psychological, and normative factors. When the decision incurs a high risk for the self, observers tend to opt for a less costly approach and modify their sanctioning behavior. Even if observers are motivated to punish, they may not choose to accept the personal cost of prescribing said punishment. It is understandable when there is a lack of protective measures for potential negative consequences. For instance, some witnesses may decide not to inform authorities of criminal operations or testify in trials for fears of retaliation from perpetrators because simply coming forward means exposing themselves to the perpetrators.

The retaliatory practices by those who receive unwanted treatment in the first place are found to be effective in blocking further undesirable outcomes. In group exchange games, participants who employed defection and exclusion strategies to non-cooperative members saw an increase in subsequent reciprocation from these members (Feinberg, Willer, and Schultz 2014; Lomborg 1996). Such actions signal both a motivation and a capability for revenge to alter the behavior of others in a desirable manner.

Several studies examining mistreatment in the workplace offer significant insight into hierarchy and reprisal methods. Specifically, employees are likely to fall victim to retaliation when the violator has greater power over them, such as a senior employee or a supervisor (Aquino, Tripp, and Bies 2001; Cortina and Magley 2003). It is conceivable that higher-power violators relative to those holding lower power are equipped with more resources in both posing and realizing credible threats.

Undoubtedly, the decision of whether or not to report a violation is considerably impacted by career and personal risks (Peirce, Rosen, and Hiller 1997). For instance, employees could risk demotions or even dismissal from jobs for disclosing violations committed by supervisors. In summary, compared to their lower-ranking counterparts, individuals of higher standing have a greater access to imposing retributions and are more likely to be able to avoid punishments.

Conversely, with anonymity and other protections, observers of perceived injustice were prepared to sanction violators (Fehr and Fischbacher 2004). The protective measures helped observers of moral violations reduce negative consequences for exposing the violators. As described previously, higher-power and higher-status persons typically have greater retaliatory capabilities than those with lower standing. To avenge or deter further unfavorable outcomes, these high power/status violators may exercise power and influence to identify hostility and respond with threats and deterrents. Considering their relative levels of power and status to violators, observers would then have to weigh concerns of reprisal when making punishment decisions. Therefore, as opposed to the predictions stated earlier in this chapter, due to risks of retaliation from violators, observers may choose not to punish higher-power violators harshly compared to lower-power violators.

In short, in situations where violators can retaliate, it is plausible that observers of moral violations will favor weaker punishment for higher-power and higher-status violators relative to those holding lower power and lower status respectively. By contrast, when observers are protected from retributions, harsher punishment may be preferred for the high-ranking violators.



## Chapter 4: Predictions

Based on the theoretical and empirical discussions outlined in the preceding chapters, I present predictions below describing the proposed effects of power and status on moral expectations and reactions to moral violations.

Several positive traits including honesty, generosity, helpfulness, fairness, and selflessness are considered to be essential to a person's moral character (Aquino and Reed 2002; Stets and Carter 2012). Experimental studies demonstrate that observers tend to characterize the use of power to obtain substantial resources as selfish and greedy (Willer et al. 2012, 2005). I propose that these negative perceptions of power abuse will help generate lower moral expectations about powerful individuals. Although individuals of power may wield it with constraint, observers recognize that those in places of power are capable of achieving their desired goal, even if it goes against the interest of others. As a result, prior to viewing an action, observers would expect higher-power individuals to act less morally relative to lower-power individuals.

***Hypothesis 1:*** Observers will have lower levels of moral expectations about evaluation targets holding higher power compared to those holding lower power.

Conversely, a positive relationship is evident between morality and high status. Status can be conferred on the basis of perceived prosociality. Indeed, research has shown that high-status persons were viewed as generous and helpful, and were expected to act fairly compared to those with low status (Flynn 2003; Flynn et al. 2006; Willer 2009). Therefore, I predict that observers will anticipate higher-status individuals to display higher morality relative to lower-status individuals.

***Hypothesis 2:*** Observers will have higher levels of moral expectations about evaluation targets with higher status compared to those with lower status.

Multiple studies report that the power effect tends to overtake the status effect, with individuals at high levels of both power and status positions predicted to act selfishly, unfairly, and dishonorably (Blader and Chen 2012; Dubois et al. 2015; Fast et al. 2012). In other words, individuals with high power and high status are equally likely to exhibit corrupt behavior as compared with individuals with high power and low status. On the other hand, status appears to be a more pronounced factor in developing positive impressions about target persons, such as perceived agreeableness and tendency to prioritize the needs of others (Fragale et al. 2011). More specifically, an individual with high power and high status is likely to be viewed as moral as those with low power and high status.

I argue that a significant moral component more closely aligns with the status as opposed to the power attainment process. Power describes an ability derived from the control over resources which would not necessarily lead to corrupt behavior (DeCelles et al. 2012; Rus et al. 2012). By contrast, status is accorded to individuals who are perceived to have greatly contributed to the well-being of others. Therefore, I hypothesize that status will be a stronger predictor of moral expectations compared to power.

***Hypothesis 3:*** In the development of moral expectations about evaluation targets, observers will base their expectations more on the status than the power of the targets.

When observers attribute witnessed immoral behavior to a deliberate intention compared to an accident, they are more likely to experience outrage and favor severe sanctions (Darley and Pittman 2003). If Hypothesis 1 concerning the association of higher power with lower moral expectations were supported, one would anticipate that observers would conclude that moral violators holding high power are prone to misdeeds. Moreover, if these powerful individuals are perceived to have intentionally abused power and broken moral codes, the observers would then experience strong negative emotions and punish harshly (Folger and Skarlicki 2004). As a result, with the expectation of lower morality attributed to higher-power individuals, I predict that observers of moral violations will respond more harshly to higher-power violators than to lower-power violators.

***Hypothesis 4A:*** When witnessing moral violations committed by higher-power individuals, observers will view the violation as more immoral and favor stronger punishment compared to lower-power individuals.

Comparing violations committed by lower-status individuals, observers may view the immoral conduct of higher-status individuals as less acceptable because it displays a greater deviation from the expected moral behavior. As a result, feelings of *betrayal* could develop toward higher-status offenders, with observers considering the offense to be a violation of not only morality but trust (Giordano 1983; Wahrman 1970). However, severe sanctions may not be guaranteed for higher-status violators if the wrongdoing does not directly stand at odds with the perceived competence of societal worth of the violator. Additionally, higher-status violators are able to retain influence

if the deviant behavior is seen as separate from the moral qualities of the violators. Therefore, following the contending arguments, I predict that observers of moral violations will judge higher-status violators more strictly but punish them less severely relative to lower-status violators.

***Hypothesis 4B:*** When witnessing moral violations committed by higher-status individuals, observers will view the violation as *more* immoral but favor weaker punishment compared to lower-status individuals.

The decision to punish violations is a function of social, psychological, and normative factors. In costly situations, for example, observers tend to modify their sanctioning behavior. For instance, strong reactions from observers may be deterred if the violator retains the capacity to retaliate (Hegtvedt and Scheuerman 2010; Skarlicki and Kulik 2004). Furthermore, compared to their lower-ranking counterparts, higher-power and higher-status persons have an advantage in accessing both material and intangible resources in order to prevent and avoid unwanted treatment. For these violators, the resources at their disposal can be utilized to instill a tremendous fear of reprisal in a potential observer, leading to a reduction in punishment severity proposed by the observer. For observers, having greater power and influence relative to the violators may help mitigate potential fears and actualize deserved penalties.

Therefore, to add to and further clarify Hypothesis 4A, I predict that considering risks of retaliation, observers will be discouraged from harshly punishing higher-power violators compared to lower-power violators. However, as assumed by Hypothesis 4B,

such concerns would not affect higher-status violators much because they will have already been punished less severely than their lower-status counterparts.

***Hypothesis 5:*** Compared to lower-power violators, observers of moral violations will favor weaker punishment for higher-power violators who retaliate against them.

## Chapter 5: Study 1

I designed the study to test Hypotheses 1 - 4B, predicting the effects of power and status on both moral expectations and responses to observed moral violations. Participants were recruited from an online crowdsourcing platform that is increasingly used by social scientists known as Amazon Mechanical Turk (MTurk). MTurk has an estimated 500,000 registered users worldwide, with the United States accounting for 70 percent of user share (Ipeirotis 2010). While individual users may come and go, at any given time researchers have access to an average pool of 7,300 MTurk respondents (Stewart et al. 2015). Demographically, although MTurk users tend to be female and liberal, as well as younger and more educated than the general population of the U.S., they are fairly representative of the domestic online community (Berinsky, Huber, and Lenz 2012; Paolacci and Chandler 2014).

I conducted a pretest for Study 1 on MTurk, and the results suggested that both the power and status conditions be revised. These revisions were incorporated into the final protocol detailed below.

### Section 1 Methods

#### General Design and Conditions

I adopted a web-based vignette methodology where participants read descriptions of hypothetical situations, evaluated the situations as well as the parties involved, and then responded to a series of questions. In the first part of the hypothetical scenario, I introduced an evaluation target who had a certain amount of power and

status compared to peers or participants. Specifically, I utilized an organizational structure of a workplace in order to manipulate the relative levels of power and status. In the second part of the scenario, I provided details of a moral violation committed by the evaluation target where the target person hit a parked car and then left the scene.

This study design addresses two contexts concerning power and status relationships, with participants always assigned as evaluators. The first context accounts for relative levels of power and status between *the evaluation target and the evaluator* (referred to as “relative context”), where the respective positions and disparities between them are identified by the evaluator. An example of this would be a student (evaluator) contrasting their relative power level against that of a teacher (evaluation target) in the classroom setting. The second context excludes comparison between the evaluator and the target but instead focuses on the evaluator observing *the target’s position relative to peers* (referred to as “observed context”). An appropriate example is asking a student (evaluator) to compare the relative power levels between multiple teachers (evaluation targets).

Compared to the design described in the original proposal revision, I made the decision to distinguish these two contexts with respect to data collection for the following two reasons. First, in the relative context where participants contrast their positions with that of the targets, participants’ self-evaluation may confound studied effects. For instance, the initial assignment of low-status positions in experiments led to negative sentiments on the part of the participants (Lovaglia and Houser 1996). Moreover, preferences for similar others could lead participants to develop favorable attitudes toward evaluation targets holding equal amounts of power or status to the

participants. Second, findings from the pretest (results not shown) were consistent with the aforementioned concerns, suggesting confounding effects that varied by reference groups.

In addition to the two types of reference contexts, I adopted a three (higher, equal, and lower power) by three (higher, equal, and lower status<sup>2</sup>) design to manipulate different levels of power and status. Following the integration of these experimental modalities, I utilized between-subject comparisons of 18 separate conditions in the final study protocol.

#### Procedures

MTurk users who were 18 years of age or older and living in the U.S. at the time of recruitment were invited to participate in the study. After enrolling on the MTurk website, participants were guided to Qualtrics.com to complete the study survey. At the beginning of the study, participants were randomly assigned to receive one of the 18 vignettes. The vignettes detailed workplace scenarios that illustrated power and status differences either between the participant and a colleague (nine vignettes) or between a separate individual and his colleagues (nine vignettes). As discussed previously, the first type of scenario served to include a comparison *between the evaluation target and the evaluator*, with the second providing an observation of *the target's position relative to workplace peers* independent from the evaluator. These vignettes illustrated distinct levels of power witnessed in (1) organizational ranks, (2)

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<sup>2</sup> The three levels of power/status categories refer to the evaluation target having higher, equal, or lower power/status compared to participants and peers.



control over decisions, and (3) ability to overcome disagreement. Variable amounts of status differed in the portrayal of (1) conferred respect, (2) value of contributions, and (3) influence over others. Appendix A displays descriptions of the scenarios presented to participants.

After reading the workplace scenario, participants assessed moral expectations about the evaluation target. Participants then proceeded to read a passage describing that the target person hit a parked car while driving in a parking garage (see Appendix A). Specifically, the vignette illustrated that the incident caused some minor damage to the parked car without injury, and the target person left right away without checking. After learning about the incident, participants reported their emotional reactions and attitudes toward the behavior, the attribution process, and the preferred punishment for the target. Finally, participants answered questions regarding demographic information and manipulation checks that assessed the perceived levels of power and status toward the target. Upon completing the survey, participants were debriefed and paid \$1 as compensation for participation. Average study completion time was 10 minutes.

#### Dependent Measures

*Expectations of Morality.* I measured moral expectations using an index of 14 pairs of characteristics describing the evaluation target. In addition to items from Stets and Carter's (2012) moral identity measure, I included evaluations of both empathy and trustworthiness. Paired items were displayed in a randomized order. Participants responded to the assessment on an eight-point bipolar scale. Results were averaged and recoded so that higher index ratings consistently show higher levels of moral

expectations. Details of this question and index are located in Appendix A. The Cronbach's alpha coefficient of reliability for the moral expectation index is 0.97.

*Moral Judgment.* I measured moral judgment utilizing an index of three statements that assessed participants' view of the target's behavior. Participants responded to the statements, "Jerry's behavior was [problematic/excusable/moral] ..." on an eight-point scale with 1 representing strongly disagree and 8 indicating strongly agree. The statements were presented in a random order. Results were averaged and axes aligned so that a higher index rating reveals harsher judgment. The Cronbach's alpha coefficient of reliability for the moral judgment index is 0.65.

*Punishment.* I measured punishment utilizing an index of four questions that queried participants regarding sanctioning options. Participants indicated their support on an eight-point scale for each of the following randomly ordered choices: (1) "Jerry should pay for the car repairs."; (2) "Legal action should be taken against Jerry."; (3) "Jerry deserves to be fired from job."; and (4) "Jerry deserves to be socially excluded." Scores on the scale range from 1 (strongly disagree) to 8 (strongly agree), with results averaged for analysis. The Cronbach's alpha coefficient of reliability for the punishment index is 0.61.

In addition to the variables pertinent to hypothesis testing, I considered emotional and perceptual responses as supplementary to the moral decision-making process, and therefore included the following measures in the questionnaire. When witnessing moral violations, observers are likely to experience sentiments in accord with how they perceive the immoral conduct of violators. Furthermore, both perceptions of the violators' intent and hypocrisy could reflect how observers cope with

the confirmed and disconfirmed biases against violators' moral character. Regarding the tendency to report moral violations, it implies a potentially costlier action for observers to take compared to choosing the preferred punishment.

*Negative Emotion.* Negative emotion was measured by an index of eight paired characteristics. Participants were asked to report the intensity of their feelings upon learning about the immoral incident. On a 10-point bipolar scale, participants evaluated each of the following choices in a random order: Happy/Unhappy; Satisfied/Dissatisfied; Not angry/Angry; Fearful/Not fearful; Not anxious/Anxious; Guilty/Not guilty; Disappointed/Not disappointed; and Not frustrated/Frustrated (Haidt 2003; Lovaglia and Houser 1996; Turner and Stets 2006). I averaged and recoded results so that greater numbers on the index indicate stronger negative sentiments. The Cronbach's alpha coefficient of reliability for the negative emotion index is 0.78.

*Purposeful Intent.* The perceived intention of the target's behavior was measured with an evaluation statement: "Jerry did not do it on purpose." Participants expressed the extent of their agreement with the statement using an eight-point scale, ranging from 1 (strongly disagree) to 8 (strongly agree). I reversely coded results so that greater numbers on this measure indicate perceptions of a more deliberate intent.

*Perceived Hypocrisy.* Perception of the target as a hypocrite was measured with an evaluation statement: "I find Jerry to be a hypocrite." Participants expressed the extent of their agreement with the statement on an eight-point scale, ranging from 1 (strongly disagree) to 8 (strongly agree).

*Reporting Behavior.* I measured the tendency to report with a question that asked participants how likely they would be to disclose the incident to the victim.

Participants in the “relative power/status context” received the statement, “I will inform the owner of the damaged car by leaving an anonymous note.” Those in the “observed context” instead received the statement, “If I were there, I would inform the owner of the damaged car.” Participants expressed the extent of their agreement with the statement on an eight-point scale, with potential scores ranging from 1 (strongly disagree) to 8 (strongly agree).

#### Rationales behind The Experimental Approach

I adopted an experimental design in Study 1 to test my hypotheses for multiple reasons. First, the method allows me to apply precise and clear manipulations of power and status. Given the strong correlation between power and status, when investigating both constructs, it is imperative to be able to manage one construct and control for the other. Additionally, the experimental conditions for various levels of power and status can be tailored to the overall study design while maintaining the validity of indicators.

Second, experimental research helps create conditions not readily found in natural settings. Moral violations can be too broad to narrow down to specific behaviors, and witnessing particular misconduct may not be a common experience in real life. As a result, the context, behavior, and relationship peculiar to moral violations can be properly represented and examined in experiments.

Third, the controlled environment and random assignment are appropriate for causal analysis. Considering many factors that drive how observers of moral violations react, my proposed theory focuses on the amount of power and status held by the

violators. Therefore, it is necessary to control for confounding factors and separate the effects of power and status of violators on the responses of observers.

Finally, the characteristic that experiments are replicable facilitates further checks and verification of study results. With the aim of rigorous research, I attempted to replicate the results of Study 1 in Study 2.

## Section 2 Results

### Participants

A total of 553 participants completed the study. Of these, 100 participants did not pass manipulation check items (e.g., misidentifying power or status characteristic of the target person), and six participants did not answer correctly to the attention check question. I removed these cases rendering a rejection rate of 18.6%. Supplemental analyses which included rejected data (i.e., all enrolled participants) demonstrated results similar to those from the primary analysis population reported in the following section. In addition, I identified no systematic differences in the collected demographic information between participants included and excluded from analyses. After rejections, 450 participants were included in the primary analysis population, with 25 participants in each condition.

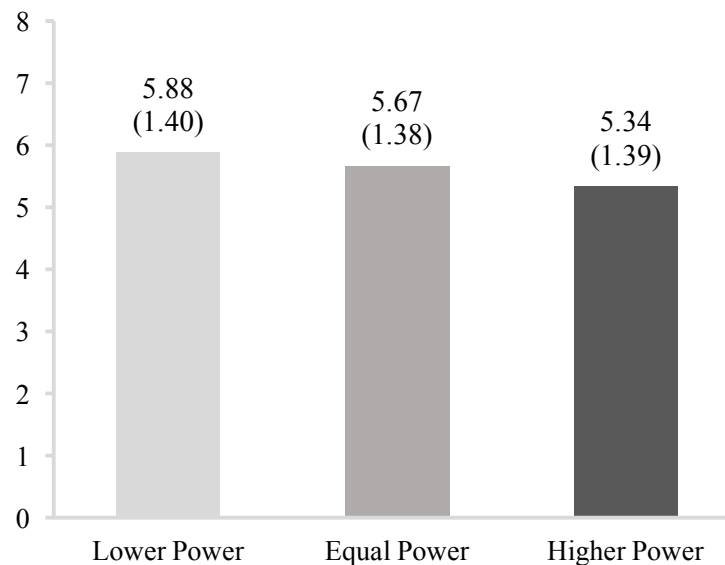
With respect to the primary analysis population, 56% of participants were male, and 44% were female, with a total mean age of 36 years. In terms of race and ethnicity, 78% of participants self-identified as non-Hispanic White, 7% reported non-Hispanic Black, 6% listed Asian, 7% self-identified as Hispanic, 1% reported Native American, and 1% listed other race and ethnicity. Regarding the level of education, responses were

the following: 1% of participants had not completed high school education; 15% of participants reported high schools to be their highest educational attainment; 38% listed some college; another 38% listed a bachelor's degree; and 9% held advanced or professional degrees. When asked to compare their socioeconomic standing with others in the U.S. (subjective SES) on a scale of one to ten, 13% of participants selected a number between one and four, while 37% responded with five or six and the remaining 50% choosing from seven to ten. All participants were U.S. residents.

## Hypothesis Tests

In this section, I present results pooled across both relative and observed contexts. Respective analyses on the two subsets of data each produced similar outcomes. Supplemental findings are reported in Appendix B.

I predict in Hypothesis 1 that observers will have lower moral expectations about evaluation targets holding higher power than those holding lower power. Figure 5-1 shows the average scores of moral expectations for three different power ranks. The three columns from left to right each represents an evaluation target described as having lower, equal, or higher power compared to participants or peers in the vignettes. From the results, a clear trend can be discerned, where evaluation targets with greater power were consistently rated as less moral than those with a lower degree of power.



**Figure 5-1** Moral Expectation Index by Violator's Power Level (Standard Deviations in Parentheses)

After controlling for demographics of participants, an ANOVA test displayed in Table 5-1 confirms significant variations in expectation scores between the three power conditions ( $F = 4.84$ ;  $p = .008$ ).

*Table 5-1 ANOVA Test for Moral Expectation Index between Power Conditions*

|                  | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|------------------|-----------|-----------|-----------|----------|----------------|
| Model            | 21        | 55.936    | 2.664     | 1.37     | .125           |
| Power Conditions | 2         | 18.766    | 9.383     | 4.84**   | .008           |
| Gender           | 1         | 7.312     | 7.312     | 3.77†    | .052           |
| Age              | 1         | 0.200     | 0.200     | 0.10     | .748           |
| Race             | 5         | 12.094    | 2.419     | 1.25     | .285           |
| Education        | 4         | 3.457     | 0.864     | 0.45     | .775           |
| Subjective SES   | 8         | 10.668    | 1.334     | 0.69     | .702           |
| Residual         | 428       | 829.696   | 1.939     |          |                |
| R-squared        |           |           | 0.0632    |          |                |
| N                |           |           | 450       |          |                |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$

Three levels of power: lower, equal, and higher power.

Table 5-2 further tests how and which levels of power differ from each other in expectation scores. It reveals that participants expected higher-power evaluation targets to be less moral than those with lower power ( $t = -3.09$ ; two-tailed  $p = .006$ ). Therefore, the results support my first hypothesis that observers' moral expectations about an evaluation target will decrease as the target holds a greater amount of power.



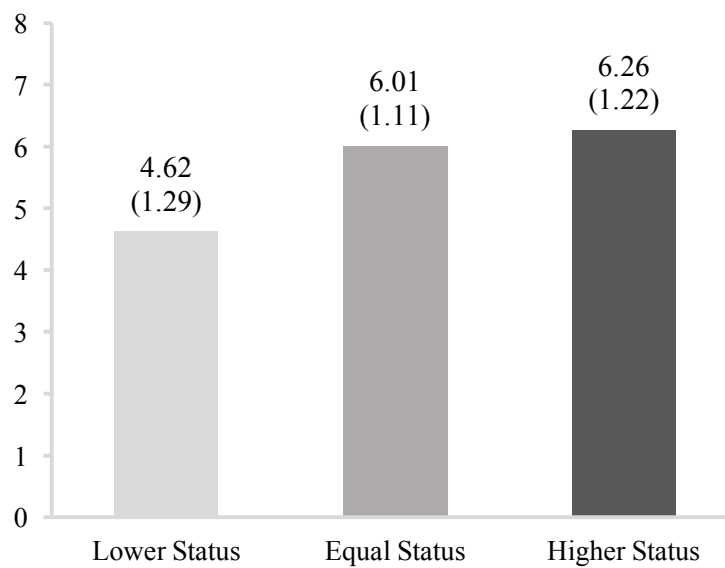
**Table 5-2 T-Tests for Moral Expectation Index between Power Conditions**

|                             | <i>Contrast</i>   | <i>Tukey</i> <sup>3</sup> |                | <i>N</i> |
|-----------------------------|-------------------|---------------------------|----------------|----------|
|                             |                   | <i>t</i>                  | <i>p-value</i> |          |
| Equal Power vs Lower Power  | -0.200<br>(0.164) | -1.22                     | .440           | 300      |
| Higher Power vs Lower Power | -0.512<br>(0.166) | -3.09**                   | .006           | 300      |
| Higher Power vs Equal Power | -0.312<br>(0.165) | -1.89                     | .143           | 300      |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$ ; Two-tailed tests  
Standard errors in parentheses.

<sup>3</sup> Tukey's range test is appropriate for conducting multiple pairwise comparisons. It is based on a studentized range distribution similar to the Student's t-distribution.

I predict in Hypothesis 2 that observers will have higher moral expectations about evaluation targets with higher status relative to those with lower status. Figure 5-2 reveals the average moral expectation scores for evaluation targets occupying lower, equal, and higher-status positions relative to participants and peers. As seen in the figure, targets with higher status were consistently expected to exhibit higher morality than those in lower ranks.



**Figure 5-2** Moral Expectation Index by Violator's Status Level (Standard Deviations in Parentheses)

Results from an ANOVA test in Table 5-3 indicate significant differences in moral expectations between the status conditions ( $F = 78.26$ ;  $p < .001$ ).

**Table 5-3** ANOVA Test for Moral Expectation Index between Status Conditions

|                   | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|-------------------|-----------|-----------|-----------|----------|----------------|
| Model             | 21        | 264.361   | 12.589    | 8.67     | .000           |
| Status Conditions | 2         | 227.192   | 113.596   | 78.26*** | .000           |
| Gender            | 1         | 7.194     | 7.194     | 4.96*    | .026           |
| Age               | 1         | 0.156     | 0.156     | 0.11     | .742           |
| Race              | 5         | 6.544     | 1.309     | 0.90     | .479           |
| Education         | 4         | 8.458     | 2.114     | 1.46     | .214           |
| Subjective SES    | 8         | 7.454     | 0.932     | 0.64     | .742           |
| Residual          | 428       | 621.260   | 1.452     |          |                |
| R-squared         |           |           | 0.2985    |          |                |
| N                 |           |           | 450       |          |                |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$

Three levels of status: lower, equal, and higher status.

Table 5-4 reports tests for differences in each pairwise comparison of the three conditions. The results show that, relative to lower-status targets, participants held greater moral expectations about both equal-status ( $t = 10.00$ ; two-tailed  $p < .001$ ) and higher-status ( $t = 11.55$ ; two-tailed  $p < .001$ ) evaluation targets. Taken together, the findings lend strong support to the second hypothesis that observers' moral expectations about an evaluation target will increase with the status rank of the target.

*Table 5-4 T-Tests for Moral Expectation Index between Status Conditions*

|                               | <i>Contrast</i>  | <i>t</i> | <i>Tukey</i><br><i>p-value</i> | <i>N</i> |
|-------------------------------|------------------|----------|--------------------------------|----------|
| Equal Status vs Lower Status  | 1.419<br>(0.142) | 10.00*** | .000                           | 300      |
| Higher Status vs Lower Status | 1.637<br>(0.142) | 11.55*** | .000                           | 300      |
| Higher Status vs Equal Status | 0.219<br>(0.141) | 1.55     | .268                           | 300      |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$ ; Two-tailed tests  
Standard errors in parentheses.

I predict in Hypothesis 3 that when developing moral expectations about evaluation targets, observers will base their expectations more on the status than the power of the targets. Consistent with this hypothesis, two important observations were noted. First, comparing both Figure 5-1 and Figure 5-2, relative to power conditions, considerable variations in the expectation scores across status conditions suggest that status is a more influential factor. Second, when broken down by different levels of power and status, evaluation targets with both higher power and higher status received greater expectation scores compared to those with lower power and lower status ( $t = 4.21$ ; two-tailed  $p < .001$ ). This observation suggests that the positive effects of higher status on moral expectations may act to offset any negative effects as a result of higher power. I conducted analyses to separately examine the statistical significance and strength of association for power and status effects.

Table 5-5 tests the effects in moral expectations when accounting for both power and status. Controlling for participants' demographic characteristics, expectation scores significantly varied by both power ( $F = 6.58$ ;  $p = .001$ ) and status levels ( $F = 80.24$ ;  $p < .001$ ). However, the p-value for the status effect is smaller than that for the power effect.

**Table 5-5 ANOVA Test for Moral Expectation Index across Power and Status Conditions**

|                   | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|-------------------|-----------|-----------|-----------|----------|----------------|
| Model             | 23        | 282.968   | 12.303    | 8.70     | .000           |
| Power Conditions  | 2         | 18.606    | 9.303     | 6.58**   | .001           |
| Status Conditions | 2         | 227.032   | 113.516   | 80.24*** | .000           |
| Gender            | 1         | 7.139     | 7.139     | 5.05*    | .025           |
| Age               | 1         | 0.009     | 0.009     | 0.01     | .935           |
| Race              | 5         | 6.379     | 1.276     | 0.90     | .479           |
| Education         | 4         | 7.960     | 1.990     | 1.41     | .230           |
| Subjective SES    | 8         | 5.674     | 0.709     | 0.50     | .855           |
| Residual          | 426       | 602.664   | 1.415     |          |                |
| R-squared         |           |           | 0.3195    |          |                |
| N                 |           |           | 450       |          |                |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$

Three levels of power/status: lower, equal, and higher power/status.

Table 5-6 further assesses the effect sizes of power and status levels. Results from the analysis indicate that the model accounts for approximately 28.3% of the variability in moral expectation index. While 0.02% of the explained variance was attributable to power conditions, the estimate reveals that status conditions accounted for 27% of the explained variation. In other words, more so than power, status strongly predicted differences in moral expectations.

*Table 5-6 Effect Sizes for Power and Status on Moral Expectation Index*

|                   | <i>df</i> | <i>Omega-Squared</i> <sup>4</sup> | <i>95% Confidence Interval</i> |
|-------------------|-----------|-----------------------------------|--------------------------------|
| Model             | 23        | .283                              | .171 to .315                   |
| Power Conditions  | 2         | .025                              | .000 to .061                   |
| Status Conditions | 2         | .270                              | .200 to .334                   |
| Gender            | 1         | .009                              | .000 to .038                   |
| Age               | 1         | .000                              | .000 to .002                   |
| Race              | 5         | .000                              | .000 to .013                   |
| Education         | 4         | .004                              | .000 to .024                   |
| Subjective SES    | 8         | .000                              | .000 to -.006                  |

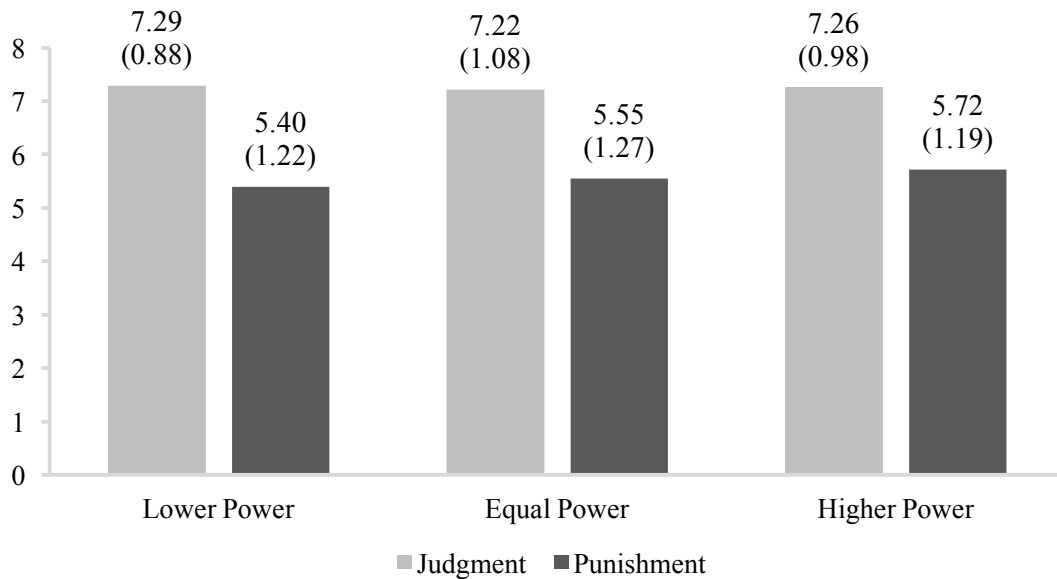
Omega-Squared values for individual factors are partial.

Therefore, the results support my third hypothesis that when developing moral expectations about an evaluation target, observers will rely more on the amount of status than the amount of power held by the target.

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<sup>4</sup> An important characteristic of Omega-squared estimates is that they are less biased by small sample sizes compared to other measures of effect size (Olejnik and Algina 2003).

I predict in Hypothesis 4A that, compared to lower-power violators, observers of moral violations committed by higher-power violators will view the violation as more immoral and favor stronger punishment. Figure 5-3 displays the average judgment and punishment scores given by participants who evaluated violators with varying levels of power. Bars in light gray represent judgment outcomes, where greater values indicate greater perceived immorality. Further, bars in dark gray represent sanctioning preferences, where greater values indicate stronger penalties administered to the violator.



**Figure 5-3** Moral Judgment Index and Punishment Index by Violator's Power Level  
(Standard Deviations in Parentheses)

The ANOVA test shown in Table 5-7 reveals that participants did not judge differently between violators with variable amounts of power ( $F = 0.21$ ;  $p = .810$ ). However, the test in Table 5-8 identifies significant variations in severity of punishment between the power conditions ( $F = 2.62$ ;  $p = .074$ ).



**Table 5-7 ANOVA Test for Moral Judgment Index between Power Conditions**

|                  | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|------------------|-----------|-----------|-----------|----------|----------------|
| Model            | 21        | 21.468    | 1.022     | 1.06     | .383           |
| Power Conditions | 2         | 0.403     | 0.202     | 0.21     | .810           |
| Gender           | 1         | 3.568     | 3.568     | 3.72†    | .054           |
| Age              | 1         | 0.067     | 0.067     | 0.07     | .792           |
| Race             | 5         | 6.857     | 1.371     | 1.43     | .212           |
| Education        | 4         | 1.933     | 0.483     | 0.50     | .733           |
| Subjective SES   | 8         | 8.238     | 1.030     | 1.07     | .381           |
| Residual         | 428       | 410.852   | 0.960     |          |                |
| R-squared        |           |           | 0.0497    |          |                |
| N                |           |           | 450       |          |                |

\*\*\* p<.001, \*\* p<.01, \* p<.05, † p<.1

**Table 5-8 ANOVA Test for Moral Punishment Index between Power Conditions**

|                  | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|------------------|-----------|-----------|-----------|----------|----------------|
| Model            | 21        | 59.596    | 2.838     | 1.96     | .007           |
| Power Conditions | 2         | 7.594     | 3.797     | 2.62†    | .074           |
| Gender           | 1         | 10.893    | 10.893    | 7.50**   | .006           |
| Age              | 1         | 0.511     | 0.511     | 0.35     | .553           |
| Race             | 5         | 11.151    | 2.230     | 1.54     | .177           |
| Education        | 4         | 26.372    | 6.593     | 4.54**   | .001           |
| Subjective SES   | 8         | 17.513    | 2.189     | 1.51     | .152           |
| Residual         | 428       | 621.284   | 1.452     |          |                |
| R-squared        |           |           | 0.0875    |          |                |
| N                |           |           | 450       |          |                |

\*\*\* p<.001, \*\* p<.01, \* p<.05, † p<.1

Accordingly, Table 5-9 examines whether differences in punishment scores were statistically significant between each pair of the power conditions. It reveals that participants proposed tougher sanctions for higher-power violators compared to lower power-violators ( $t = 2.28$ ; two-tailed  $p = .060$ ).

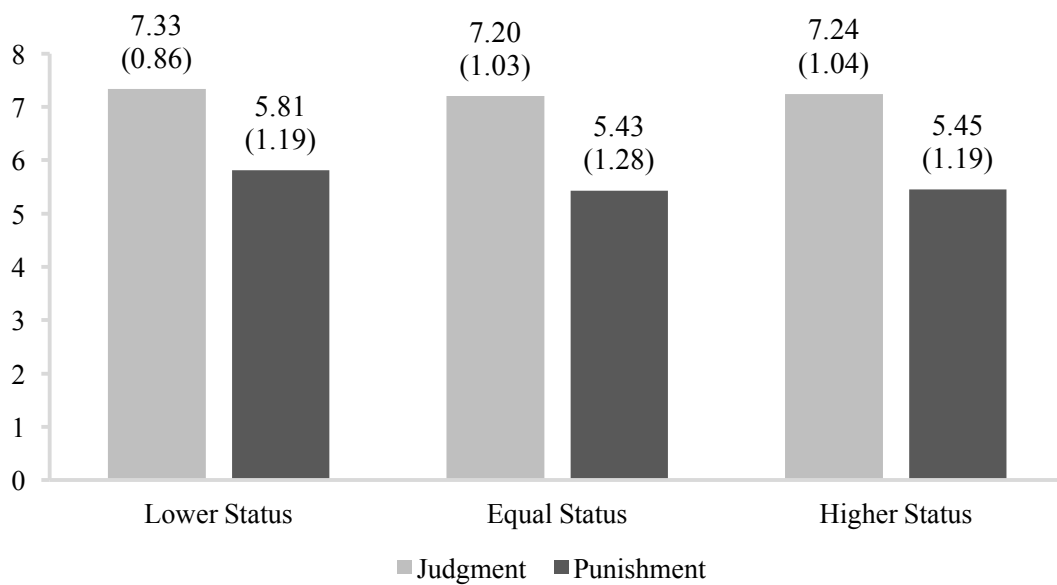
**Table 5-9** *T-Tests for Moral Punishment Index between Power Conditions*

|                             | <i>Contrast</i>  | <i>t</i> | <i>Tukey<br/>p-value</i> | <i>N</i> |
|-----------------------------|------------------|----------|--------------------------|----------|
| Equal Power vs Lower Power  | 0.181<br>(0.142) | 1.28     | .410                     | 300      |
| Higher Power vs Lower Power | 0.327<br>(0.143) | 2.28†    | .060                     | 300      |
| Higher Power vs Equal Power | 0.146<br>(0.143) | 1.03     | .561                     | 300      |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$ ; Two-tailed tests  
Standard errors in parentheses.

Therefore, in partial support of Hypothesis 4A, results show that observers of moral violations punished higher-power violators more harshly relative to lower-power violators; however, observers did not view the behavior of higher-power violators as more immoral than the behavior of those with lower power.

I predict in Hypothesis 4B that, relative to lower-status violators, observers of moral violations committed by higher-status violators will view the violation as *more immoral* but favor *weaker punishment*. Figure 5-4 illustrates the average judgment (light gray bars) and punishment (dark gray bars) scores for violators across the status ranks. For both judgment and punishment outcomes, greater values indicate more intense reactions.



**Figure 5-4** Moral Judgment Index and Punishment Index by Violator's Status Level (Standard Deviations in Parentheses)

ANOVA tests in Table 5-10 and Table 5-11 demonstrate that varied amounts of status did not affect moral judgment ( $F = 0.60$ ;  $p = .549$ ) but resulted in differential punishment preferences ( $F = 4.74$ ;  $p = .009$ ).

**Table 5-10** ANOVA Test for Moral Judgment Index between Status Conditions

|                   | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|-------------------|-----------|-----------|-----------|----------|----------------|
| Model             | 21        | 22.213    | 1.058     | 1.10     | .340           |
| Status Conditions | 2         | 1.148     | 0.574     | 0.60     | .549           |
| Gender            | 1         | 3.513     | 3.513     | 3.67†    | .056           |
| Age               | 1         | 0.090     | 0.090     | 0.09     | .759           |
| Race              | 5         | 6.514     | 1.303     | 1.36     | .238           |
| Education         | 4         | 1.802     | 0.451     | 0.47     | .757           |
| Subjective SES    | 8         | 8.516     | 1.065     | 1.11     | .354           |
| Residual          | 428       | 410.107   | 0.958     |          |                |
| R-squared         |           |           | 0.0514    |          |                |
| N                 |           |           | 450       |          |                |

\*\*\* p<.001, \*\* p<.01, \* p<.05, † p<.1

**Table 5-11** ANOVA Test for Moral Punishment Index between Status Conditions

|                   | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|-------------------|-----------|-----------|-----------|----------|----------------|
| Model             | 21        | 65.632    | 3.125     | 2.17     | .002           |
| Status Conditions | 2         | 13.630    | 6.815     | 4.74**   | .009           |
| Gender            | 1         | 10.768    | 10.768    | 7.49**   | .006           |
| Age               | 1         | 0.672     | 0.672     | 0.47     | .494           |
| Race              | 5         | 8.399     | 1.680     | 1.17     | .323           |
| Education         | 4         | 25.927    | 6.482     | 4.51**   | .001           |
| Subjective SES    | 8         | 17.062    | 2.133     | 1.48     | .160           |
| Residual          | 428       | 615.248   | 1.437     |          |                |
| R-squared         |           |           | 0.0964    |          |                |
| N                 |           |           | 450       |          |                |

\*\*\* p<.001, \*\* p<.01, \* p<.05, † p<.1

Table 5-12 reports tests for pairwise differences in punishment scores between the three status conditions. Results indicate that, compared to lower-status violators, participants preferred less severe punishment for both higher-status ( $t = -2.51$ ; two-tailed  $p = .033$ ) and equal-status ( $t = -2.81$ ; two-tailed  $p = .014$ ) violators.

*Table 5-12 T-Tests for Moral Punishment Index between Status Conditions*

|                               | <i>Contrast</i>   | <i>t</i> | <i>Tukey<br/>p-value</i> | <i>N</i> |
|-------------------------------|-------------------|----------|--------------------------|----------|
| Equal Status vs Lower Status  | -0.396<br>(0.141) | -2.81*   | .014                     | 300      |
| Higher Status vs Lower Status | -0.355<br>(0.141) | -2.51*   | .033                     | 300      |
| Higher Status vs Equal Status | 0.042<br>(0.140)  | 0.30     | .952                     | 300      |

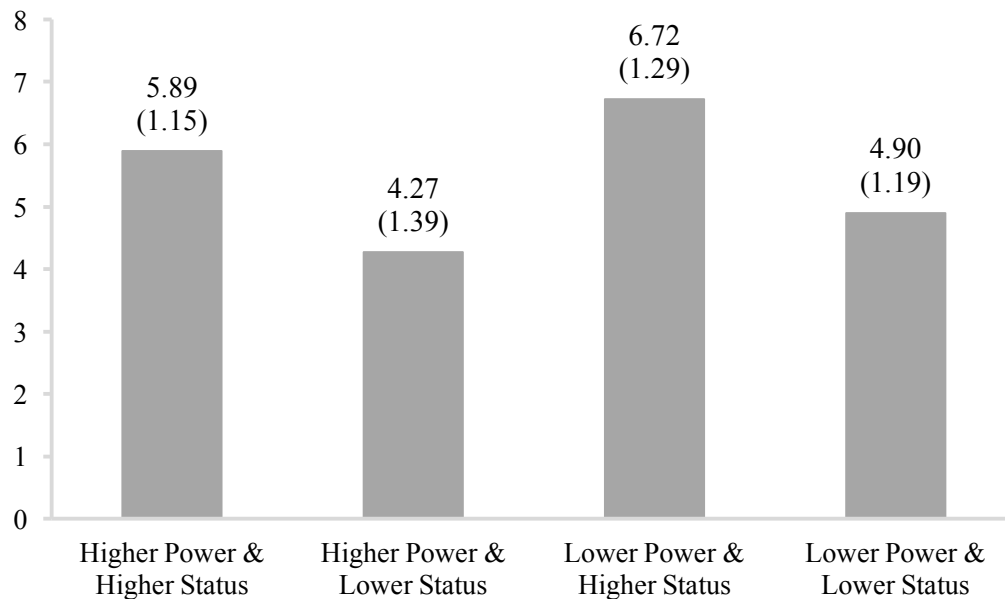
\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$ ; Two-tailed tests  
Standard errors in parentheses.

As a result, Hypothesis 4B receives only partial support: observers penalized higher-status violators less harshly relative to lower-status violators but did not view the behavior of higher-status violators as more immoral than the behavior of those with lower status.

### Additional Findings

Results presented in this section represent data categorized by power and status levels, pooled across relative/observed experimental contexts. Supplemental analyses for the two subsets of relative and observed data are reported in Appendix B.

Figure 5-5 highlights differences in moral expectation scores between four combinations of power and status levels out of nine possible combinations from the vignettes. A clear pattern shows that participants expected lower-power-and-higher-status evaluation targets to act most morally, whereas they gave targets who held higher power and lower status the lowest moral expectation scores.<sup>5</sup> Further ANOVA finds no interactions between power and status ( $F = 1.26$ ;  $p = .284$ ).

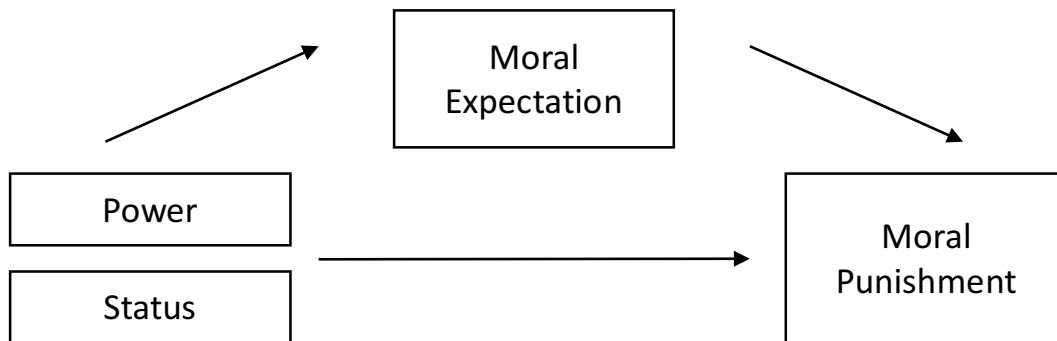


**Figure 5-5** Moral Expectation Index for the Intersections of Violator's Power and Status at Both High and Low Levels (Standard Deviations in Parentheses)

<sup>5</sup> These two power/status categories also respectively represent the two conditions where participants gave the highest and lowest moral expectation scores to evaluation targets among the nine power/status conditions.

Given the logic behind my proposed theory and the results that power and status held by the violators predicted both moral expectations and punishment for the violators,<sup>6</sup> I conducted mediation analysis to examine whether moral expectations mediate the effects of power and status on punishment (see Figure 5-6).

I adopted Preacher and Hayes' (2004) bootstrapping approach that accommodates small-sized and non-normal data. I applied 5,000 resamples with replacement from the data set and used a percentile estimate of the confidence interval ( $\alpha = .05$ ). Control variables in the analysis included judgment, negative emotion, purposeful intent, perceived hypocrisy, and participants' demographics.



**Figure 5-6** Mediation Model for Power, Status, Moral Expectation, and Moral Punishment

Table 5-13 reveals a statistically significant mediator of moral expectation scores between power of violators and punishment for violators. A significant and negative coefficient for the relationship between power and moral expectation is consistent with the above findings that having greater power led to observers' lower expectations. Additionally, the coefficient for the relationship between moral

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<sup>6</sup> I did not conduct mediation analysis on moral judgment since the effects of power and status on moral judgment were not statistically significant to begin with.

expectation and punishment is significant and negative, indicating that lower moral expectations caused more severe punishment for violators. Results show that participants previously expected higher-power violators to act less morally; these expectations, in turn, led participants to penalize higher-power violators more harshly relative to lower-power violators.

Overall, violators' power had a positive effect on the severity of the punishment imposed on them ( $\beta = 0.129$ ), and the proportion of effect mediated by moral expectation is 41%. Taken together, compared to those with lower power, observers would punish higher-power evaluation targets more harshly for committing violations out of expectations that higher-power targets have lower morality.

**Table 5-13** Mediation Analysis for the Effect of Power on Moral Punishment

|                              | Coefficient            | Significance |
|------------------------------|------------------------|--------------|
| Power-Moral Expectation      | -.234 (-.391 to -.077) | Yes          |
| Moral Expectation-Punishment | -.235 (-.320 to -.149) | Yes          |
| Mediated Effect              | .055 (.016 to .102)    | Yes          |
| Direct Effect                | .075 (-.042 to .191)   | No           |
| Total Effect                 | .129 (.008 to .244)    | Yes          |
| <br>                         |                        |              |
| % of Total Effect Mediated   | .41                    |              |

Number of observation is 450.

95% Confidence intervals in parentheses.

Table 5-14 reports a statistically significant effect of status on punishment mediated by moral expectations. The significant and positive coefficient for the relationship between status and moral expectation confirms my prediction that having a higher status would increase moral expectations developed by observers. Moreover, the relationship between moral expectation and punishment is significant and negative,



which identifies that higher moral expectations reduced the severity of proposed sanctions for violators. The mediation analysis reports that prior to violations, participants anticipated a higher moral character of higher-status evaluation targets relative to lower-status targets; these expectations later prompted participants to favor weaker punishment for those with greater status.

In short, violators' status had a negative effect on the severity of the punishment imposed on them ( $\beta = -0.222$ ), and the proportion of effect mediated by moral expectation is 84%. As a whole, observers of moral violations would punish higher-status violators less harshly compared to lower-status violators partly because they expected those of higher status to behave in a moral manner.

**Table 5-14** Mediation Analysis for the Effect of Status on Moral Punishment

|                              | Coefficient            | Significance |
|------------------------------|------------------------|--------------|
| Status-Moral Expectation     | .801 (.640 to .963)    | Yes          |
| Moral Expectation-Punishment | -.231 (-.331 to -.131) | Yes          |
| Mediated Effect              | -.185 (-.278 to -.099) | Yes          |
| Direct Effect                | -.037 (-.162 to .087)  | No           |
| Total Effect                 | -.222 (-.325 to -.120) | Yes          |
| <br>                         |                        |              |
| % of Total Effect Mediated   | .84                    |              |

Number of observation is 450.

95% Confidence intervals in parentheses.

In addition to moral expectations, judgment, and punishment, I performed supplemental analyses on emotional and perceptual responses collected as part of the moral decision-making process. Table 5-15 documents the average responses for participant reactions to moral violations, separated by experimental conditions.

*Table 5-15 Means of Emotional and Perceptual Measures by Violator's Power and Status Levels*

|               | Negative Emotion | Purposeful Intent | Perceived Hypocrisy | Reporting Behavior | N   |
|---------------|------------------|-------------------|---------------------|--------------------|-----|
| <b>Power</b>  |                  |                   |                     |                    |     |
| Higher Power  | 7.35 (1.33)      | 4.02 (2.27)       | 5.52 (1.77)         | 6.81 (1.89)        | 150 |
| Equal Power   | 7.44 (1.40)      | 3.88 (2.43)       | 5.41 (1.91)         | 6.74 (1.91)        | 150 |
| Lower Power   | 7.68 (1.38)      | 3.80 (2.27)       | 5.35 (1.84)         | 6.66 (1.79)        | 150 |
| <b>Status</b> |                  |                   |                     |                    |     |
| Higher Status | 7.58 (1.43)      | 3.76 (2.34)       | 5.71 (1.82)         | 6.73 (1.93)        | 150 |
| Equal Status  | 7.44 (1.28)      | 3.78 (2.19)       | 5.50 (1.89)         | 6.60 (1.92)        | 150 |
| Lower Status  | 7.45 (1.41)      | 4.16 (2.42)       | 5.07 (1.76)         | 6.89 (1.72)        | 150 |

Standard deviations in parentheses.

First, results from the negative emotion index indicate that the intensity of negative feelings reduces as the power level of the violator increases. However, subsequent ANOVA tests report no associations between negative sentiments and the amount of power held by violators ( $F = 1.65$ ;  $p = .193$ ).

Second, when asked to assess the intent behind the immoral behavior, participants appear to have concluded that violators with higher power and lower status committed the violation on purpose relative to those with lower power and higher status, respectively. However, ANOVA tests reveal that these observed differences in attribution outcomes were not statistically significant between varying levels of power ( $F = 0.21$ ;  $p = .807$ ) and status ( $F = 1.44$ ;  $p = .238$ ).

Third, with respect to perceived hypocrisy, results from Table 5-15 indicate that violators at the high end of the power/status spectra were consistently rated as acting more hypocritical. An ANOVA model confirms significant variations between status conditions ( $F = 4.20$ ;  $p = .015$ ). A post-hoc Tukey's t-test shows that participants regarded higher-status violators as more hypocritical than lower-status violators ( $t = 2.88$ ; two-tailed  $p = .012$ ). However, the observed differences between power conditions were not statistically significant ( $F = 0.24$ ;  $p = .789$ ).

Finally, regarding the tendency to expose the immoral incident, results reveal that, relative to lower-power violators, participants were more likely to report the incident when confronted with higher-power violators. However, ANOVA tests demonstrate no significant differences between the experimental conditions ( $F = 0.23$ ;  $p = .796$ ).

### Section 3 Discussion

Results from Study 1 confirm most of my predictions. Specifically, in support of Hypothesis 1, when controlling for status level, participants expected higher-power evaluation targets to be less moral than lower-power targets. Furthermore, I found evidence supporting Hypothesis 2 that participants held higher moral expectations about targets with higher status relative to lower status, regardless of power level.

Support was also identified for Hypothesis 3. Specifically, compared to power, status was found to have a greater effect on moral expectations when status and power were both in place. The analysis indicates that moral expectations varied by the amount of power and status; both of these findings were statistically significant. However, further tests confirm that status more robustly predicted moral expectations than power, with respect to both the strength of association and the magnitude of effect. Moreover, although consistent with the argument that individuals occupying lower-power-and-higher-status positions and those at higher-power-and-lower-status positions are expected to be the most and least moral respectively, results do not show an interaction between lower power and higher status.

I found evidence in partial support of Hypothesis 4A predicting that observers of moral violations will view the conduct of higher-power violators as more immoral and favor stronger punishment compared to lower-power violators. Indeed, participants proposed tougher sanctions for violators with higher power relative to lower power. However, in terms of perceived immorality, results showed no differences between the power conditions. Further mediation analysis reveals that participants punished higher-

power violators harshly potentially due to their expectations of lower morality about these violators.

Similarly, mixed support was identified for Hypothesis 4B predicting that observers will view the conduct of higher-status violators as more immoral but prefer weaker punishment compared to lower-status violators. Despite no significant differences in moral judgment, participants consistently chose to punish higher-status violators less severely relative to lower-status violators. Higher-status violators were perceived as more hypocritical than violators with lower status in part because participants expected them to exhibit higher morality. However, the appraisals did not affect how participants evaluated the immoral behavior, and they favored less harsh penalties for violators with higher status relative to lower status. Additionally, results from mediation analysis suggest participants' higher moral expectations partially explained their lenient treatments to higher-status violators.

Finally, participants in both relative and observed experimental contexts reacted similarly in terms of developing moral expectations and moral judgment. They anticipated lower morality in higher-power evaluation targets and higher morality in higher-status targets compared to those with lower standing. In addition, participants disapproved of the immoral conduct of all types of violators, and yet they intended to punish lower-power violators and higher-status violators less harshly compared to their respective counterparts. However, an alternative explanation could be a methodological limitation of the vignette design in this study. I elaborated on potential concerns in the following section.

## Limitations

There are several limitations of Study 1. First, the overall rejection rate of this study is nearly 19%, which is a bit high for experimental research. Although I ran additional analyses in which I included rejected data and found results similar to those reported in the results section, participants' attention remained a potential concern throughout the data collection process in an online setting. Furthermore, it was not possible to connect to participants who withdrew and account for their decisions if they opted out of the study without first having registered for the study on MTurk or completed the survey portion on Qualtrics. In other words, I was not able to identify potential systematic differences in demographic characteristics and moral attitudes between participants who completed and those who withdrew from the study. Therefore, caution is needed when interpreting the results given that the collected survey responses might have been skewed by participants who demonstrated an interest in completing the study.

Second, the vignette design was limited in terms of having participants experience differential levels of power and status as well as signifiers of a moral violation. After all, hypothetical situations have no bearing on real-life consequences. Specifically, the non-differential outcomes between relative and observed contexts might have in part resulted from that participants were distantly subjected to the amounts of power and status held by the evaluation targets. Non-significant results of the perceptual and emotional responses also suggested a reduced impact of witnessing an immoral incident through vignettes. Moreover, both the preferences for punishment and the indicated reporting behavior involved no realization cost for participants. It is

thus likely that participants became less personally invested in the judging and punishing process, as though they were making decisions that would not bring significance to the hypothetical scenario and their roles in it.

I attempted to address these concerns in Study 2 where I conducted a laboratory experiment to rigorously examine my hypotheses in a more controlled environment. The experimental design focused on the relative context where participants interacted with evaluation targets who had variable amounts of power and status compared to the participants. Additionally, participants could react to violations with substantive and costly punishments. This allowed me to create a space in which participants were more extensively exposed to the effects of power and status, as well as moral violations.

## Chapter 6: Study 2

In this study, I tested Hypothesis 5 and more rigorously examined Hypotheses 1 - 4B in a controlled environment. I predict in Hypotheses 1 - 4B the effects of power and status on moral expectations as well as judgment and punishment for moral violators. In Hypothesis 5, I predict the effect of retaliation risks on the punishing behavior of individuals who witness moral violations. Compared to Study 1, I removed emotion assessments but incorporated behavioral measures for the responses to moral violations in the present design. Participants were students enrolled at the University of Maryland at the time of recruitment and registered for the study on the Sona Systems website. Sona Systems is a commercial software for online participant management that offers a range of services including setting up studies, managing session schedules, and prescreening participants. During the recruitment, I gave potential participants instructions on how to access and sign up for my study on the Sona Systems website.<sup>7</sup> Recruitment materials and images for the online registration process are shown in Appendix C.

I conducted experimental sessions at the computer labs administered by the Office of Academic Computing Services (OACS) at the University of Maryland. In each session, participants were evenly distributed and scattered across two computer rooms to avoid potential interference.

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<sup>7</sup> My study was listed on both websites for the Group Processes Lab of the sociology department and the paid research participation opportunities with the psychology department.



## Section 1 Methods

### General Design and Conditions

I conducted a laboratory experiment where participants made moral judgment and punishment decisions on violations committed by an evaluation target in a group game. Specifically, as a fictitious game partner, the evaluation target was installed with varying levels of power and status compared to the participants. I manipulated the relative levels of power and status utilizing conventional methods in social psychological experiments. Regarding moral violations, I devised multiple occasions where participants witnessed deceptive behavior of the target person in the game. To create fears of retaliation in participants, I implemented different rules of the game that would or would not expose punishment decisions of the participants. Moral expectations, as well as views and actions taken by participants in response to observed violations, were surveyed throughout the game.

I adapted the experimental design from van de Ven and Villeval's (2015) two-person deception game. In their original design, participants were paired into groups of two, with each taking the role of a sender or a receiver. The purpose of the game was for the sender who had full information about payoff outcomes to communicate with the receiver who had no information but had absolute decision-making power about the payoff outcomes. The sender was able to send deceptive messages to prompt the receiver to choose an option that would benefit the sender but hurt earnings of the receiver. However, the receiver might or might not follow messages from the sender.

For this study, I kept a similar format to the group game setting but made the following changes. First, an additional role of an observer was incorporated into the

game. Second, participants were always assigned to the observer role, while the sender and the receiver roles were filled by partners of the participants that were, in fact, computer simulations. Third, in addition to sending either a truthful or a deceptive message to the receiver, the sender had a third option to not send a message. Fourth, and most importantly, the observer (i.e., participants) had complete knowledge regarding both payoff outcomes and messages selected by the sender. In other words, the observer was able to identify whether or not the sender told a lie. As programmed by the computer, the observer would witness multiple episodes of deception where the sender communicated false information to the receiver. Furthermore, every time when a deception occurred, the observer could punish the sender by taking away potential earnings of the sender.

Table 6-1 displays four experimental conditions of power and status: violators (i.e., the sender, Partner A) had higher power with higher status; lower power with higher status; higher power with lower status; or lower power with lower status than both victims (i.e., the receiver, Partner B) and observers (i.e., participants). As illustrated, the power and status differences between victims and observers were controlled and minimized. To make it clearer, fake partners A and B were referred to as game partners of participants in the study. During the game, Partner A acted as the sender, Partner B played the receiver role, and participants were assigned to be the observer. When Partner A sent a deceptive message as programmed by the computer, it became the violator while Partner B turned into the victim. In short, Partner A who ultimately became the violator was always the evaluation target in the study.

**Table 6-1** Power and Status Conditions in Study 2

|             | Violator/Sender<br>(Partner A)  | Victim/Receiver<br>(Partner B)  | Observer<br>(Participant)       |
|-------------|---------------------------------|---------------------------------|---------------------------------|
| Condition 1 | Higher Power &<br>Higher Status | Lower Power &<br>Lower Status   | Lower Power &<br>Lower Status   |
| Condition 2 | Lower Power &<br>Higher Status  | Higher Power &<br>Lower Status  | Higher Power &<br>Lower Status  |
| Condition 3 | Higher Power &<br>Lower Status  | Lower Power &<br>Higher Status  | Lower Power &<br>Higher Status  |
| Condition 4 | Lower Power &<br>Lower Status   | Higher Power &<br>Higher Status | Higher Power &<br>Higher Status |

I manipulated status differences using contrast sensitivity test scores and demographic information. The contrast sensitivity test is commonly used by experimental research in social psychology to create conferred respect on the basis of perceived competence with the test. The test is made up and has no indications of a fake contrast sensitivity ability. For the purpose of manipulation, I told participants that higher test scores were associated with better performances in the group game.

To create a perceived status of the observer lower than that of the violator in Condition 1 and 2, I provided participants with the following information about their partners in the study. Partner A was a 24-year-old male graduate student with a college GPA of 3.9, and Partner B was a 19-year-old female undergraduate student with a current college GPA of 2.1. Additionally, Partner A did better than both Partner B and participants on the contrast sensitivity test.

As for participants assigned to Condition 3 and 4 where the observer had a status higher than that of the violator, I presented the opposite information. Specifically, Partner A was the female undergraduate student with a relatively low GPA and Partner

B, the male graduate student with a relatively high GPA. I also highlighted that Partner A performed worse on the test than both Partner B and participants.

In terms of power manipulation, I employed differential access to material resources. To be precise, certain group members were given the ability to distribute bonus rewards at the end of the study. I explained to participants that partner A was assigned the control over group rewards in Condition 1 and 3 where the observer had lower power than the violator. Conversely, I announced in Condition 2 and 4 where the observer had higher power than the violator that both Partner B and participants were chosen to distribute rewards.

I adopted a within-subject design in which all participants underwent two conditions of retaliation risk for punishing violators. To facilitate an environment where the violator could retaliate, I created two different rules of the game that specified whether or not punishment decisions of the observer would be made public during the game. Logically, by exposing the identity of the observer, the violator would be able to target their revengeful acts. Therefore, participants would be facing a higher risk of retaliation when sanctioning violators in a context where the decisions were exposed compared to where they were kept unknown. Additionally, the retaliatory capacity of the violator was designed to be tied to the power manipulation method. That is, violators could retaliate by utilizing their control over bonus rewards.

Each participant had a unique identification number consisting of the condition, location, and order of participation in the study. I randomly assigned participants to one of the four experimental conditions using an online dice-roll simulator. The two conditions of retaliation risk were presented to participants in random order.

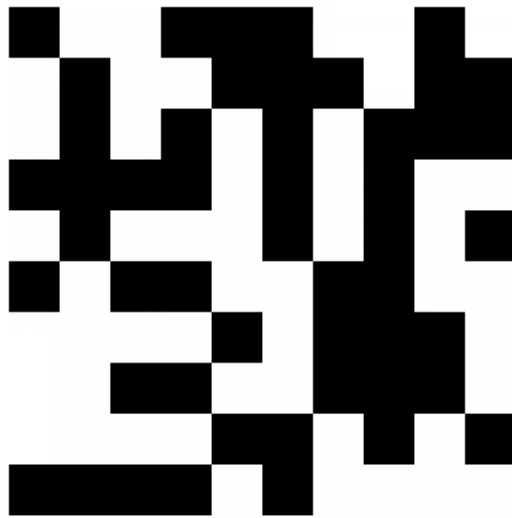
## Procedures

I scheduled between one and 12 participants for each study session. In order to maintain an appearance of a group study and lead participants to believe they were interacting with real partners, one experimenter would act as a confederate in the study when only one participant showed up for a session. When more than six participants signed up for a session, they would be split into two rooms each led by an experimenter. The objective was to have participants witness that at least one individual other than themselves was participating in the study.

When participants arrived at the OACS computer labs, they were greeted and directed to seats. After participants gave consent to participation in the study, experimenters provided a brief introduction and an overview of the tasks involved in the study. Experimenters announced that participants would complete an individual test, a group game, and several surveys on computers. Participants learned that for the game they would be paired with two partners who were seated in different rooms. Although they would not be able to interact face-to-face, participants would receive information about their partners prior to the game. Experimenters also explained that the amount of cash compensation for the study would be determined by both outcomes of the group game and bonus rewards distributed after the game. Task instructions were always displayed on computer monitors and elaborated by experimenters when needed.

Participants began the study by completing a series of demographic questions. They then proceeded to the contrast sensitivity test which involved comparing the composition of black and white squares in images displayed on the monitor (see an example in Figure 6-1). The instruction emphasized that test results served as an

indicator of how well individuals usually perform in the following group game. After the test, experimenters handed out sheets of information about participants' fake partners. The profile sheets listed demographic and academic information, along with contrast sensitivity test scores and which group member had control over bonus rewards.



*Figure 6-1 A Screen Shot Example for Contrast Sensitivity Test Image*

As illustrated in both Table 6-1 and the text above, participants received information about Partner A and Partner B according to the experimental condition they were assigned. For example, participants who were assigned to have higher power with lower status compared to the violator in Condition 2 received the following partner profile. The profile sheet described Partner A as a 24-year-old male graduate student with a college GPA of 3.9 and Partner B as a 19-year-old female undergraduate student with a current college GPA of 2.1. Additionally, the sheet reported a contrast sensitivity test score from Partner A higher than those from both Partner B and participants.

Moreover, the sheet marked that Partner B and participants shared control over bonus rewards. Details of the profile sheets are presented in Appendix D.

After taking some time to read through the profile sheets, participants responded to an evaluation survey on moral expectations about their partners. When participants were finished, experimenters left the room, pretending to check the progress of the study session in the other room. Upon returning, experimenters guided participants to proceed to the group game.

Instructions explained that the game involved a sender, a receiver, and an observer. At the beginning of any given round, two payoff options would be presented to the sender and the observer. A table would show the number of points the sender and the receiver could earn with each option. The sender would then choose to take one of the three following action: send a truthful message, a false message, or no message to the receiver about the payoff options (see an example in Figure 6-2). After getting a message from the sender, the receiver would choose an option.

The payoff table for this round:

|                 | <b>Sender</b> | <b>Receiver</b> |
|-----------------|---------------|-----------------|
| <b>Option X</b> | 12            | 5               |
| <b>Option Y</b> | 5             | 12              |

The SENDER will select an action from below.

- ▶ Send Message A to RECEIVER: "Option X will earn you more points than option Y."
- ▶ Send Message B to RECEIVER: "Option Y will earn you more points than option X."
- ▶ Do not send a message to RECEIVER.

*Figure 6-2 A Screen Shot Example for Payoff Table and Messages*

The observer would be given 10 points at the beginning of each round. Whenever the sender selected a false message, the observer would be able to punish the sender by spending their own points deducting the points of the sender. The amount could not be rolled over but would be accumulated and eventually converted into cash payment for the observer. The punishment functioned in a way that the number of points removed from the sender's earning would be three times as large as the amount the observer allocated. The observer could not punish the sender for delivering truthful or no messages (see an example in Figure 6-3). The receiver would be blind to both payoff and punishment information before selecting a final option.

The SENDER lied to the RECEIVER. How much would you like to invest your 10 points in punishing the SENDER? The amount removed from the SENDER's earning will be tripled to what you invest.

Type in a number from 0 to 10 in the box.

*Figure 6-3 A Screen Shot Example for Making Punishment Decisions*

After participants finished reading the instructions, they had to pass a short quiz in order to proceed to the game. The questions were designed to ensure that participants fully and correctly understood the procedure and rules of the game. After they passed the quiz, participants learned that they were assigned as the observer while Partner A and B were assigned the sender and the receiver respectively (Table 6-1). Participants then went through a practice round before formally starting the game. In total, participants completed six rounds of the game. The payoff structure differed in each round and was presented in a randomized order. The violator (i.e., the sender) was



programmed to send a deceptive message in four out of six rounds, send a truthful message in one round, and send no messages in one round. In other words, as the observer, participants were offered four opportunities to punish the violator.

As noted earlier, due to a within-subject design, participants completed conditions of both high and low retaliation risks where the violator would or would not be aware of punishment decisions. Half of the participants learned that their punishment decisions would be made public in the first three rounds but be kept anonymous in the remaining three rounds. The other half of participants, by contrast, had their punishment decisions first undisclosed and later revealed to the group. To summarize, concerning the number of punishment decisions participants had to make, two of them would be disclosed to the group in the high-risk condition and the other two would stay anonymous in the low-risk condition.

After participants completed the group game, they answered questions regarding their views on the behavior of both partners during the game as well as associational preferences for the partners. Participants later responded to a final survey that checked suspicion about fictitious partners, power and status manipulations, and purpose of the study. In the end, experimenters debriefed, thanked, and paid each participant \$15.<sup>8</sup> The entire study session lasted about 45 minutes.

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<sup>8</sup> Prior to implementing a protocol change in compensation options, I paid the first quarter of participants in the study each \$12. Subsequent to the change, a portion of participants chose a combination of course credit and \$5. These different incentives for participation in the study were controlled in analysis.

## Dependent Measures

*Expectations of Morality.* As in Study 1, I measured moral expectations utilizing an index of 14 pairs of characteristics adapted from Stets and Carter's (2012). Participants assessed each pair of the characteristics describing the evaluation target in a randomized order on an eight-point bipolar scale. Results were averaged and recoded so that a higher index rating indicates higher moral expectations. Details of both the question and index are shown in Appendix D. The Cronbach's alpha coefficient of reliability for the moral expectation index is 0.86.

*Moral Judgment.* Judgment on the behavior of the target was measured with four evaluation statements: (1) "Partner A valued cooperation over competition."; (2) "Partner A's behavior was problematic."; (3) "Partner A acted fairly to others."; and (4) "Partner A's behavior was moral."<sup>9</sup> Participants indicated the extent of their agreement with each statement on an eight-point scale, ranging from 1 (strongly disagree) to 8 (strongly agree). Results were averaged and recoded so that higher index ratings represent harsher views of the behavior. The Cronbach's alpha coefficient of reliability for the moral judgment index is 0.79.

*Punishment.* Punishment decisions were assessed by the number of points participants spent on taking away the potential earnings from the violator. Participants were installed with 10 points at the beginning of each round. Participants could choose to allocate all available points; however, as the way payoff options and rules were structured, in practice participants could only use up to five points to deduct earnings

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<sup>9</sup> There was a fifth statement in this series of questions: "Partner A's behavior was excusable." It was not included in the index because results from both Cronbach's reliability test and exploratory factor analysis suggested low correlations with other statements.

of the violator at each punishing decision. Two scales were thus created on the basis of simply the responses inserted by participants (0 to 10 points) and the portion that effectively demonstrated a punishing purpose (0 to 5 points). Results of four punishing decisions were aggregated so that higher amounts indicate more severe penalties. Analyses on both amounts of punishment allotment before and after adjustment are presented in the results section.

In addition to the above variables used in hypothesis testing, I included two measures in the study design to engage participants more in the group game and for an exploratory purpose:

*Expected Moral Behavior.* I constructed a scale to assess behavioral expectations about the target in the game. At the beginning of each round, participants were asked which message they would send if they were the sender: truthful, deceptive, or no messages. Results were averaged and recoded into a binary measure where 1 indicates always sending truthful or no messages and 0 indicates always choosing deceptive messages. In short, the closer a scale value approaches 1, the more frequently the participants expected the target to behave morally throughout the game.

*Associational Preferences.* I measured the associational preferences of participants for the evaluation target using an index of two statements. Participants responded to the statements, “I would like Partner A as a [friend/classmate to work on a course project with] ...” on an eight-point scale with 1 representing strongly disagree and 8 indicating strongly agree. Results were averaged and axes aligned so that a higher index rating shows greater preferences. The Cronbach’s alpha coefficient of reliability for the associational preferences index is 0.61.

## Section 2 Results

### Participants

A total of 238 participants gave consent to participate in the study. However, a session filled with 10 participants was canceled due to an emergency incident that occurred at the beginning of the study.<sup>10</sup> Additionally, following the objective to maintain an appearance of group interaction, two participants who registered for two separate study sessions were sent away before the study started because there were no confederates available or other participants in presence to act as “partners.”

Eventually, I collected data from a total of 226 participants. Of these, three participants showed a lack of reasonable compliance and attention required during the study. Another four participants reported during the debriefing that their suspicion about fictitious partners had altered behavior in the study to an extent where their responses might have been no longer valid for analysis. In terms of manipulation check items, 53 participants did not correctly identify the levels of power and status held by the evaluation target. The removal of these cases rendered a rejection rate of 26.5%. Supplemental analyses that included all 226 cases of data revealed findings similar to those from the primary analysis population. Additionally, except for the high numbers of failed manipulation checks in both Condition 2 and 3, I found no systematic differences between participants included and excluded from analyses.<sup>11</sup> After

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<sup>10</sup> A problem report was submitted and acknowledged by the Institutional Review Board (IRB) after the incident.

<sup>11</sup> Compared to Condition 1 and 4, the evaluation targets had imbalanced levels of power and status in Condition 2 and 3. I suspect that participants conflated power and status, and therefore had difficulty affirming observations where power and status did not vary together. These concerns were identified half way through the data collection. In response, I included additional manipulation check questions and over-assigned participants into Condition 2 and 3.

rejections, 166 participants were included in the primary analysis population, with 41 participants in Condition 1, 43 participants in Condition 2, 43 participants in Condition 3, and 39 participants in Condition 4.<sup>12</sup>

With respect to the primary analysis population, 33% of participants were male, and 67% were female. 8% of the sample were graduate students, and the mean age was 20. Regarding race and ethnicity, 40% of participants self-identified as non-Hispanic White, 17% listed non-Hispanic Black, 32% reported Asian, 7% were Hispanic, and 4% belonged to other racial and ethnic groups. In terms of subjective socioeconomic status compared to others in the U.S., participants responded on a scale, ranging from 1 (having the least money, the least education, and the least respected jobs or no jobs) to 10 (having the most money, the most education, and the most respected jobs). 51% of participants selected a number from one to four, 38% responded with five or six, and 11% chose between seven and ten.

#### Hypothesis Tests

I predict in Hypothesis 1 that observers will have lower levels of moral expectations about evaluation targets holding higher power relative to those holding lower power. Table 6-2 reports moral expectation scores between evaluation targets who had higher power and who had lower power than participants. Clearly, the differences were minimal.

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<sup>12</sup> I ran additional analyses on a subset of 127 cases after excluding participants who showed any indication of suspicion about fictitious partners. Results were similar to those reported in the sections of hypothesis tests and additional findings.

**Table 6-2** Moral Expectation Index between Power Conditions

|              | Moral Expectations | N  |
|--------------|--------------------|----|
| Higher Power | 5.07 (0.86)        | 84 |
| Lower Power  | 5.03 (0.78)        | 82 |

Standard deviations in parentheses.

An ANOVA test revealed in Table 6-3 confirms that controlling for participants' demographics, differences in expectations scores between the two power conditions were not statistically significant ( $F = 0.27$ ;  $p = .601$ ). Therefore, results do not support the first hypothesis that observers will develop lower moral expectations about evaluation targets with higher power compared to those with lower power.

**Table 6-3** ANOVA Test for Moral Expectation Index between Power Conditions

|                             | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|-----------------------------|-----------|-----------|-----------|----------|----------------|
| Model                       | 14        | 5.181     | 0.370     | 0.53     | .913           |
| Higher Power vs Lower Power | 1         | 0.192     | 0.192     | 0.27     | .601           |
| Gender                      | 1         | 0.524     | 0.524     | 0.75     | .388           |
| Age                         | 1         | 0.027     | 0.027     | 0.04     | .845           |
| Race                        | 4         | 0.580     | 0.145     | 0.21     | .934           |
| Subjective SES              | 6         | 2.729     | 0.455     | 0.65     | .690           |
| Game Points Earned          | 1         | 1.277     | 1.277     | 1.82     | .179           |
| Residual                    | 151       | 105.816   | 0.701     |          |                |
| R-squared                   |           |           | 0.0467    |          |                |
| N                           |           |           | 166       |          |                |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$

I predict in Hypothesis 2 that observers will have higher levels of moral expectations about evaluation targets with higher status relative to those with lower status. Table 6-4 shows the average scores of moral expectations for evaluation targets with a status higher or lower than participants.

**Table 6-4** *Moral Expectation Index between Status Conditions*

|               | Moral Expectations | N  |
|---------------|--------------------|----|
| Higher Status | 5.31 (0.73)        | 84 |
| Lower Status  | 4.78 (0.82)        | 82 |

Standard deviations in parentheses.

Results from an ANOVA test in Table 6-5 indicate that the documented differences in expectation scores between the two status conditions were statistically significant ( $F = 18.61$ ;  $p < .001$ ). Post-hoc analysis reports that participants expected higher-status evaluation targets to display higher morality than lower-status targets ( $t = 4.31$ ; two-tailed  $p < .001$ ). As a result, the findings confirm the second hypothesis that observers will develop higher moral expectations about evaluation targets who hold higher status compared to those who hold lower status.

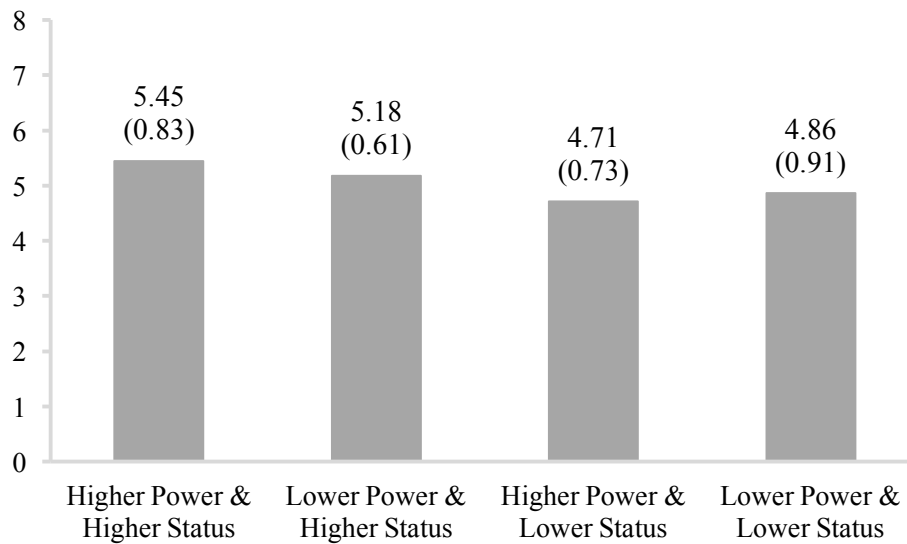
**Table 6-5** ANOVA Test for Moral Expectation Index between Status Conditions

|                               | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|-------------------------------|-----------|-----------|-----------|----------|----------------|
| Model                         | 14        | 16.623    | 1.187     | 1.90     | .030           |
| Higher Status vs Lower Status | 1         | 11.634    | 11.634    | 18.61*** | .000           |
| Gender                        | 1         | 0.027     | 0.027     | 0.04     | .836           |
| Age                           | 1         | 0.776     | 0.776     | 1.24     | .267           |
| Race                          | 4         | 0.905     | 0.226     | 0.36     | .835           |
| Subjective SES                | 6         | 2.312     | 0.385     | 0.62     | .716           |
| Game Points Earned            | 1         | 0.895     | 0.895     | 1.43     | .233           |
| Residual                      | 151       | 94.374    | 0.625     |          |                |
| R-squared                     |           |           | 0.1498    |          |                |
| N                             |           |           | 166       |          |                |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$



I predict in Hypothesis 3 that when observers develop moral expectations about evaluation targets, they will base moral expectations more on the amount of status than the amount of power held by the targets. One observation consistent with this hypothesis was worth noting. As seen in Figure 6-4, when comparing across the experimental conditions, participants expected evaluation targets with both higher power and higher status to exhibit higher morality than those with lower power and lower status ( $t = 3.04$ ; two-tailed  $p = .003$ ). The evidence suggests that a positive effect of having higher status on moral expectations might have outweighed a potentially negative effect resulting from occupying a higher-power position.



**Figure 6-4** Moral Expectation Index by Violator's Power and Status Levels (Standard Deviations in Parentheses)

Table 6-6 examines the differences in moral expectation scores between power and status conditions. When both demographics and potential earnings of participants are accounted for, the ANOVA model reveals that varying amounts of status affect

expectation scores for evaluation targets ( $F = 18.33$ ;  $p < .001$ ), while levels of power held by the targets indicate no effects ( $F = 0.13$ ;  $p = .721$ ).

**Table 6-6** ANOVA Test for Moral Expectation Index across Power and Status Conditions

|                               | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|-------------------------------|-----------|-----------|-----------|----------|----------------|
| Model                         | 15        | 16.703    | 1.114     | 1.77     | .043           |
| Higher Power vs Lower Power   | 1         | 0.080     | 0.080     | 0.13     | .721           |
| Higher Status vs Lower Status | 1         | 11.522    | 11.522    | 18.33*** | .000           |
| Gender                        | 1         | 0.037     | 0.037     | 0.06     | .809           |
| Age                           | 1         | 0.708     | 0.708     | 1.13     | .290           |
| Race                          | 4         | 0.919     | 0.230     | 0.37     | .832           |
| Subjective SES                | 6         | 2.249     | 0.375     | 0.60     | .732           |
| Game Points Earned            | 1         | 0.899     | 0.899     | 1.43     | .233           |
| Residual                      | 150       | 94.294    | 0.629     |          |                |
| R-squared                     |           |           | 0.1505    |          |                |
| N                             |           |           | 166       |          |                |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$

Consistent with the significance test, results from Table 6-7 indicate a stronger association between moral expectations and status relative to power. Specifically, nearly zero percent of variations in expectation scores explained by the model was attributed to power conditions. Conversely, status accounted for 10.3% of the variance component.

*Table 6-7 Effect Sizes for Power and Status on Moral Expectation Index*

|                    | <i>df</i> | <i>Omega-Squared</i> | <i>95% Confidence Interval</i> |
|--------------------|-----------|----------------------|--------------------------------|
| Model              | 15        | .066                 | .000 to .093                   |
| Power Conditions   | 1         | .000                 | .000 to .026                   |
| Status Conditions  | 1         | .103                 | .026 to .201                   |
| Gender             | 1         | .000                 | .000 to .020                   |
| Age                | 1         | .001                 | .000 to .050                   |
| Race               | 4         | .000                 | .000 to .005                   |
| Subjective SES     | 6         | .000                 | .000 to .007                   |
| Game Points Earned | 1         | .003                 | .000 to .055                   |

Omega-Squared values for individual factors are partial.

Taken together, not only status was the single factor in the model that was statistically significant, it also caused more substantial differences to moral expectation scores than power. Therefore, the findings confirm my third hypothesis that in the development of moral expectations about evaluation targets, observers will depend more on the status than the power of the targets.

I predict in Hypothesis 4A that observers of moral violations will hold harsher views and propose more severe penalties for higher-power violators relative to lower-power violators. Table 6-8 displays the moral judgment index and the total amount of punishment from participants who evaluated targets with different levels of power.

**Table 6-8** *Moral Judgment Index and Sum of Punishments between Power Conditions*

|              | Moral Judgment | Unadjusted Punishment | Adjusted Punishment | N  |
|--------------|----------------|-----------------------|---------------------|----|
| Higher Power | 5.55 (1.02)    | 16.21 (9.14)          | 12.56 (4.47)        | 84 |
| Lower Power  | 5.64 (1.23)    | 16.65 (9.59)          | 13.05 (5.09)        | 82 |

Standard deviations in parentheses.

The unadjusted punishment amount ranges from 0 to 40, and the adjusted punishment amount ranges from 0 to 20.

When asked about how they viewed the act of the evaluation target during the game, participants appeared to judge lower-power violators more harshly relative to those with higher power (Table 6-8; left column). However, the ANOVA test in Table 6-9 demonstrates that the observed differences in average ratings of moral judgment index between the two power conditions were not statistically significant ( $F = 0.08$ ;  $p = .776$ ), after controlling for participants' demographics and potential earnings.

**Table 6-9 ANOVA Test for Moral Judgment Index between Power Conditions**

|                             | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|-----------------------------|-----------|-----------|-----------|----------|----------------|
| Model                       | 14        | 27.002    | 1.929     | 1.59     | .087           |
| Higher Power vs Lower Power | 1         | 0.098     | 0.098     | 0.08     | .776           |
| Gender                      | 1         | 0.456     | 0.456     | 0.38     | .540           |
| Age                         | 1         | 1.756     | 1.756     | 1.45     | .230           |
| Race                        | 4         | 14.410    | 3.602     | 2.97*    | .021           |
| Subjective SES              | 6         | 12.292    | 2.049     | 1.69     | .127           |
| Game Points Earned          | 1         | 0.080     | 0.080     | 0.07     | .798           |
| Residual                    | 151       | 183.035   | 1.212     |          |                |
| R-squared                   |           |           | 0.1286    |          |                |
| N                           |           |           | 166       |          |                |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$

The central and right columns in Table 6-8 respectively report the number of points spent by participants on punishment before and after adjusted to a capped amount. Results from both scales indicate that participants were more likely to give up potential earnings in order to penalize lower-power violators compared to higher-power violators. However, when accounting for retaliation risks, ANOVA tests in Table 6-10 and 6-11 show that the adjusted ( $F = 0.43$ ;  $p = .511$ ) and unadjusted punishment decisions ( $F = 0.09$ ;  $p = .766$ ) did not vary by the level of power held by the violators.

**Table 6-10** Repeated-Measures ANOVA for Sum of Adjusted Punishments between Power Conditions (Controlling for Retaliation Risks)

|                             | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|-----------------------------|-----------|-----------|-----------|----------|----------------|
| Model                       | 166       | 1887.910  | 11.373    | 2.22     | .000           |
| Higher Power vs Lower Power | 1         | 4.966     | 4.966     | 0.43     | .511           |
| Between-Subjects Error Term | 164       | 1879.254  | 11.459    |          |                |
| Retaliation Risk Conditions | 1         | 3.690     | 3.690     | 0.72     | .397           |
| Residual                    | 165       | 845.810   | 5.126     |          |                |
| R-squared                   |           |           | 0.6906    |          |                |
| N                           |           |           | 332       |          |                |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$   
 Retaliation risk is a within-subject factor.

**Table 6-11** Repeated-Measures ANOVA for Sum of Unadjusted Punishments between Power Conditions (Controlling for Retaliation Risks)

|                             | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|-----------------------------|-----------|-----------|-----------|----------|----------------|
| Model                       | 166       | 7236.102  | 43.591    | 3.31     | .000           |
| Higher Power vs Lower Power | 1         | 3.873     | 3.873     | 0.09     | .766           |
| Between-Subjects Error Term | 164       | 7196.443  | 43.881    |          |                |
| Retaliation Risk Conditions | 1         | 35.786    | 35.786    | 2.72     | .100           |
| Residual                    | 165       | 2169.714  | 13.150    |          |                |
| R-squared                   |           |           | 0.7693    |          |                |
| N                           |           |           | 332       |          |                |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$   
 Retaliation risk is a within-subject factor.

As a result, Hypothesis 4A is not supported: relative to lower-power violators, observers of moral violations did not view the behavior of higher-power violators as more immoral or prefer stronger punishment for them.

I predict in Hypothesis 4B that, compared to lower-status violators, observers of moral violations will view the conduct of higher-status violators as *more immoral* but favor *weaker sanctions*. Table 6-12 reveals moral judgment and punishment decisions of participants when they evaluated targets occupying varied status positions.

**Table 6-12** *Moral Judgment Index and Sum of Punishments between Status Conditions*

|               | Moral Judgment | Unadjusted Punishment | Adjusted Punishment | N  |
|---------------|----------------|-----------------------|---------------------|----|
| Higher Status | 5.57 (1.16)    | 16.95 (10.11)         | 12.74 (4.81)        | 84 |
| Lower Status  | 5.61 (1.10)    | 15.89 (8.50)          | 12.87 (4.77)        | 82 |

Standard deviations in parentheses.

The unadjusted punishment amount ranges from 0 to 40, and the adjusted punishment amount ranges from 0 to 20.

Results from the left column in Table 6-12 indicate that participants might have perceived the deceptive behavior of lower-status violators as more immoral than that of higher-status violators. However, an ANOVA test in Table 6-13 demonstrates no significant differences between the experimental conditions ( $F = 1.04$ ;  $p = .309$ ).

**Table 6-13 ANOVA Test for Moral Judgment Index between Status Conditions**

|                               | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|-------------------------------|-----------|-----------|-----------|----------|----------------|
| Model                         | 14        | 28.154    | 2.011     | 1.67     | .067           |
| Higher Status vs Lower Status | 1         | 1.251     | 1.251     | 1.04     | .309           |
| Gender                        | 1         | 0.222     | 0.222     | 0.18     | .668           |
| Age                           | 1         | 2.438     | 2.438     | 2.02     | .156           |
| Race                          | 4         | 15.007    | 3.752     | 3.11*    | .017           |
| Subjective SES                | 6         | 13.475    | 2.246     | 1.86†    | .090           |
| Game Points Earned            | 1         | 0.117     | 0.117     | 0.10     | .755           |
| Residual                      | 151       | 181.882   | 1.205     |          |                |
| R-squared                     |           |           | 0.1340    |          |                |
| N                             |           |           | 166       |          |                |

\*\*\* p<.001, \*\* p<.01, \* p<.05, † p<.1

With respect to penalizing the evaluation targets for sending false messages in the game, a mixed trend of outcomes was identified contingent on the adjustment of punishment allotments. As seen in the central column in Table 6-12, when the number of points spent on punishment was not adjusted, participants were more likely to penalize violators with higher status. Conversely, results from the right column in the table show that after the allotments were adjusted, participants seemed to propose tougher sanctions for lower-status violators relative to higher-status violators. However, these differences in both adjusted ( $F = 0.03$ ;  $p = .863$ ) and unadjusted outcomes ( $F = 0.53$ ;  $p = .465$ ) between the status conditions were not statistically significant as revealed in Table 6-14 and 6-15.



**Table 6-14** Repeated-Measures ANOVA for Sum of Adjusted Punishments between Status Conditions (Controlling for Retaliation Risks)

|                               | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|-------------------------------|-----------|-----------|-----------|----------|----------------|
| Model                         | 166       | 1887.910  | 11.373    | 2.22     | .000           |
| Higher Status vs Lower Status | 1         | 0.339     | 0.339     | 0.03     | .863           |
| Between-Subjects Error Term   | 164       | 1883.881  | 11.487    |          |                |
| Retaliation Risk Conditions   | 1         | 3.690     | 3.690     | 0.72     | .397           |
| Residual                      | 165       | 845.810   | 5.126     |          |                |
| R-squared                     |           |           | 0.6906    |          |                |
| N                             |           |           | 332       |          |                |

\*\*\* p<.001, \*\* p<.01, \* p<.05, † p<.1  
Retaliation risk is a within-subject factor.

**Table 6-15** Repeated-Measures ANOVA for Sum of Unadjusted Punishments between Status Conditions (Controlling for Retaliation Risks)

|                               | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|-------------------------------|-----------|-----------|-----------|----------|----------------|
| Model                         | 166       | 7236.102  | 43.591    | 3.31     | .000           |
| Higher Status vs Lower Status | 1         | 23.405    | 23.405    | 0.53     | .465           |
| Between-Subjects Error Term   | 164       | 7176.911  | 43.762    |          |                |
| Retaliation Risk Conditions   | 1         | 35.786    | 35.786    | 2.72     | .100           |
| Residual                      | 165       | 2169.714  | 13.150    |          |                |
| R-squared                     |           |           | 0.7693    |          |                |
| N                             |           |           | 332       |          |                |

\*\*\* p<.001, \*\* p<.01, \* p<.05, † p<.1  
Retaliation risk is a within-subject factor.

Therefore, results do not support Hypothesis 4B by showing that, compared to violators of lower status, observers did not judge more harshly or propose weaker sanctions for higher-status violators.

I predict in Hypothesis 5 that when violators can retaliate, observers of moral violations will favor weaker punishment for higher-power violators compared to lower-power violators. As mentioned previously, this study adopts a within-subject design where half of the participants' punishment decisions were known to partners while the other half were anonymous. The public setting allowed violators to retaliate by exposing both the identity and decisions of the participants, whereas violators received no information in the anonymous setting. Table 6-16 presents the amount of punishment imposed by participants when they faced differential risks of retaliation from violators who had higher or lower power relative to participants.

**Table 6-16** *Sum of Punishments by Violator's Power Level and Risk of Retaliation*

|              | Unadjusted Punishment   |                       | Adjusted Punishment     |                       |
|--------------|-------------------------|-----------------------|-------------------------|-----------------------|
|              | Low Risk<br>(Anonymous) | High Risk<br>(Public) | Low Risk<br>(Anonymous) | High Risk<br>(Public) |
| Higher Power | 8.60 (5.82)             | 7.62 (4.72)           | 6.44 (2.84)             | 6.12 (2.83)           |
| Lower Power  | 8.49 (5.62)             | 8.16 (5.13)           | 6.57 (2.93)             | 6.48 (2.94)           |

Standard deviations in parentheses.

The unadjusted punishment amount ranges between 0 to 20, and the adjusted punishment amount ranges between 0 and 10.

The grouped columns on the left side of Table 6-16 display the number of points participants allocated before being adjusted. Results show that, compared to lower-power violators, participants were more likely to penalize higher-power violators when the punishment decisions were kept anonymous. Conversely, participants appeared to punish those with greater power less harshly when the decisions were made public to partners. However, the ANOVA coefficient for the interaction between power and retaliation risk in Table 6-17 reveals that participants did not sanction different types of violators on the basis of the risk they were facing ( $F = 0.66$ ;  $p = .418$ ). In fact, their punishment decisions did not even differ between a low-risk and a high-risk condition ( $F = 2.68$ ;  $p = .103$ ). In other words, participants did not penalize violators differentially depending on the relative power held by the violators as well as the risk of retribution from the violators.

**Table 6-17** Repeated-Measures ANOVA for Sum of Unadjusted Punishments across Power and Retaliation Risk Conditions

|   | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|---|-----------|-----------|-----------|----------|----------------|
| Model   | 167       | 7244.785  | 43.382    | 3.29     | .000           |
| Higher Power vs Lower Power                               | 1         | 3.873     | 3.873     | 0.09     | .766           |
| Between-Subjects Error Term                               | 164       | 7196.443  | 43.881    |          |                |
| Higher vs Lower Retaliation Risk                          | 1         | 35.357    | 35.357    | 2.68     | .103           |
| Interaction between Power and Retaliation Risk Conditions | 1         | 8.683     | 8.683     | 0.66     | .418           |
| Residual  | 164       | 2161.031  | 13.177    |          |                |
| R-squared   |           |           | 0.7702    |          |                |
| N   |           |           | 332       |          |                |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$   
Retaliation risk is a within-subject factor.

The grouped columns on the right side of Table 6-16 refer to the penalties proposed by participants after adjustment. As seen in the table, relative to lower-power violators, participants consistently favored weaker sanctions for those with greater power in both public and anonymous settings. However, subsequent tests in Table 6-18 demonstrate that differences in punishment for higher-power and lower-power violators did not vary by retaliation risks ( $F = 0.20$ ;  $p = .653$ ). In addition, participants did not respond differently to the two conditions of retaliation risk ( $F = 0.71$ ;  $p = .401$ ). All in all, Hypothesis 5 is not supported: relative to lower-power violators, observers of moral violations did not penalize higher-power violators less severely who could retaliate against them.<sup>13</sup>

**Table 6-18** *Repeated-Measures ANOVA for Sum of Adjusted Punishments across Power and Retaliation Risk Conditions*

|   | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|---|-----------|-----------|-----------|----------|----------------|
| Model   | 167       | 1888.949  | 11.311    | 2.20     | .000           |
| Higher Power vs Lower Power                               | 1         | 4.966     | 4.966     | 0.43     | .511           |
| Between-Subjects Error Term                               | 164       | 1879.254  | 11.459    |          |                |
| Higher vs Lower Retaliation Risk                          | 1         | 3.642     | 3.642     | 0.71     | .401           |
| Interaction between Power and Retaliation Risk Conditions | 1         | 1.040     | 1.040     | 0.20     | .653           |
| Residual  | 164       | 844.770   | 5.151     |          |                |
| R-squared   |           |           | 0.6910    |          |                |
| N   |           |           | 332       |          |                |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$

<sup>13</sup> Additional analyses on the amount of punishment broken down by status level and risk of retaliation demonstrate no significant associations.

### Additional Findings

I conducted additional analyses utilizing the same data collected from the primary analysis population. I presented findings regarding the interaction of power and status, behavioral expectations for morality, and associational preferences.

Moral expectations about evaluation targets vary by the relative levels of power and status between the targets and the participants, as illustrated in Figure 6-4. Indeed, an ANOVA test confirms significant variations in moral expectation index between the four experimental conditions ( $F = 7.32$ ;  $p < .001$ ). Interestingly, evaluation targets who had both higher power and higher status than participants seemed to receive higher expectation scores compared to those with lower power and higher status. Although a post-hoc Tukey's t-test indicates no significant differences in expectation scores between these two conditions ( $t = -1.50$ ; two-tailed  $p = .443$ ), another aspect to consider is the interaction between power and status. Controlling for characteristics of the participants, Table 6-19 examines the effects of power and status on moral expectations when taking into account the interaction between power and status.

**Table 6-19** ANOVA Test for Moral Expectation Index for the Effects of Power, Status, and their Interaction

|                               | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>p-value</i> |
|-------------------------------|-----------|-----------|-----------|----------|----------------|
| Model                         | 16        | 18.608    | 1.163     | 1.88     | .026           |
| Higher Power vs Lower Power   | 1         | 0.089     | 0.089     | 0.14     | .705           |
| Higher Status vs Lower Status | 1         | 11.161    | 11.161    | 18.00*** | .000           |
| Higher Power x Higher Status  | 1         | 1.905     | 1.905     | 3.07†    | .081           |
| Gender                        | 1         | 0.069     | 0.069     | 0.11     | .738           |
| Age                           | 1         | 0.575     | 0.575     | 0.93     | .337           |
| Race                          | 4         | 0.800     | 0.200     | 0.32     | .862           |
| Subjective SES                | 6         | 2.379     | 0.396     | 0.64     | .698           |
| Game Points Earned            | 1         | 1.120     | 1.120     | 1.81     | .180           |
| Residual                      | 149       | 92.388    | 0.620     |          |                |
| R-squared                     |           |           | 0.1676    |          |                |
| N                             |           |           | 166       |          |                |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ , †  $p < .1$

Results from the ANOVA model show that while power indicates no effect ( $F = 0.14$ ;  $p = .705$ ), status robustly predicts moral expectation scores ( $F = 18.00$ ;  $p < .001$ ). Additionally, an interaction between the two constructs is statistically significant ( $F = 3.07$ ;  $p = .081$ ). A subsequent Tukey's t-test confirms higher expectation scores for evaluation targets holding both higher power and higher status than those with lower power and lower status ( $t = 1.75$ ; two-tailed  $p = .082$ ). The analysis reveals that when developing moral expectations about evaluation targets, observers would base their expectations more on the status than on the power of the targets. More importantly,

observers might expect particularly high moral character of targets who have both higher power and higher status.

In comparison with the expected moral qualities of evaluation targets surveyed prior to the group game, behavioral expectations recorded during the game serve as a supplementary measure. A pattern for expected behavior shows that participants frequently anticipated the evaluation targets to send truthful messages or no messages to the other partner. Table 6-20 reports the likelihood of participants expecting moral conduct from evaluation targets with variable amounts of power and status.

**Table 6-20** *Proportion of Expected Moral Behavior across Power and Status Conditions*

|               | Sending Truthful or<br>No Messages | N  |
|---------------|------------------------------------|----|
| Higher Power  | 0.81 (0.24)                        | 84 |
| Lower Power   | 0.82 (0.24)                        | 82 |
| Higher Status | 0.78 (0.26)                        | 84 |
| Lower Status  | 0.85 (0.22)                        | 82 |

Standard deviations in parentheses.

Throughout six rounds of the game, participants did not assume that higher-power and lower-power evaluation targets would take different actions when communicating with the other partner ( $z = -0.33$ ; two-tailed  $p = .744$ ). To be precise, participants expected both types of evaluation targets to send a truthful message or choose not to send a message in roughly five out of six rounds. On the other hand, Table 6-20 displays lower expectation of honest action for higher-status targets than that for lower-status targets. In other words, as opposed to lower-status evaluation

targets, participants seemed to anticipate those with higher status to act less morally. However, such gap was not statistically significant ( $z = -1.06$ ; two-tailed  $p = .289$ ).

Furthermore, I utilized these data to investigate associations between the anticipated action from evaluation targets and severity of the proposed punishment for the targets. Specifically, the analyses reveal how participants responded with punishment when they expected (or did not expect) deceptive behavior of the evaluation targets. In general, Pearson's correlation tests demonstrate that expected moral behavior was negatively associated with stronger punishment both before ( $r = -0.175$ ; two-tailed  $p = .024$ ) and after the punishment allotments were adjusted ( $r = -0.129$ ; two-tailed  $p = .097$ ). That is, participants were less likely to penalize target persons for sending false messages if they first assumed that the targets were honest. Conversely, participants tended to apply harsher punishment to targets from whom they predicted deception. Further analysis reveals that these associations were statistically significant only when the targets had lower power (before adjustment:  $r = -0.225$ ; two-tailed  $p = .041$ , after adjustment:  $r = -0.221$ ; two-tailed  $p = .046$ ) or higher status than participants (before adjustment:  $r = -0.236$ ; two-tailed  $p = .030$ , after adjustment:  $r = -0.235$ ; two-tailed  $p = .031$ ).<sup>14</sup>

Finally, participants reflected on experiences with the evaluation targets during the game and described their interests in having the targets as a classmate or friend. Table 6-21 displays the associational preferences index for target persons occupying various positions of power and status.

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<sup>14</sup> Additional analyses report no associations between moral expectation index and punishment decisions.



**Table 6-21** *Associational Preference Index across Power and Status Conditions*

|               | Associational Preferences | N  |
|---------------|---------------------------|----|
| Higher Power  | 3.31 (1.34)               | 84 |
| Lower Power   | 3.23 (1.30)               | 82 |
| Higher Status | 3.37 (1.35)               | 84 |
| Lower Status  | 3.16 (1.28)               | 82 |

Standard deviations in parentheses.

Results from Table 6-21 indicate that compared to lower-power evaluation targets, participants more strongly desired social ties to higher-power targets even after observing their deceptive behavior. However, an ANOVA test reveals no significant differences between the power conditions ( $F = 0.01$ ;  $p = .941$ ). Likewise, although participants appeared to favor those with higher status, differences in the associational preference rating were not statistically significant between higher-status and lower-status targets ( $F = 2.34$ ;  $p = .128$ ).

### Section 3 Discussion

Evidence from Study 2 does not support most of my predictions. Results did not confirm Hypothesis 1 that observers will produce lower moral expectations about evaluation targets with higher power compared to those with lower power. Specifically, participants did not develop different levels of moral expectations about the two types of evaluation targets. However, the study confirmed Hypothesis 2 that participants expected those with higher status relative to lower status to hold higher morality.

In support of Hypothesis 3, participants did rely more on the amount of status than the amount of power held by evaluation targets when producing moral expectations about the targets. Results from ANOVA models indicate that moral expectations about the target persons varied by status of the targets. Conversely, such expectations did not differ between the level of power held by the targets. Post-hoc analyses also reveal a greater proportion of variance explained by status, an indication of stronger association. Moreover, as results of the interaction between power and status suggest, occupying both higher power and higher status positions received a boost in moral expectations.

I found no evidence supporting Hypothesis 4A stating that observers of moral violations will view the conduct of higher-power violators as more immoral and punish them more harshly compared to lower-power violators. Specifically, participants did not judge or penalize the two types of violators differently. In other words, those with greater power relative to lower power did not draw harsher treatment for committing moral violations. However, for lower-power violators, participants tended to punish

less severely if they had not anticipated the observed deception but would punish harder if they had expected the immoral behavior of the violators.

Similarly, no support was identified for Hypothesis 4B stating that observers of moral violations will perceive the behavior of higher-status violators as more immoral but punish them less harshly compared to lower-status violators. Results show that participants did not differentially criticize or penalize violators of various status. That is, relative to lower-status violators, those with higher status were not treated leniently for breaking moral codes. However, participants would favor weaker punishment if they had believed in the honesty of higher-status violators. Conversely, participants were likely to propose tougher sanctions if they had expected these higher-status violators to act immorally.

Results did not confirm Hypothesis 5 predicting that compared to those with lower power, observers of moral violations will impose weaker punishment on higher-power violators who retaliate against them. Specifically, participants did not propose disparate amounts of punishment for the two types of violators when they could retaliate. In other words, violators with higher power relative to lower power did not receive weaker penalties when they were capable of more damaging retaliatory tactics. The findings were not surprising because participants did not sanction both types of violators differently between low-risk and high-risk retaliation conditions. It is possible that fears of retaliation from violators did not pose an impact on participants or these fears were not successfully engendered by the research design in the first place.

## Limitations

There are several limitations of this study concerning the implementation of manipulations and the overall experimental design. First, the manipulation of different levels of power was not sufficiently rigorous as numerous participants did not correctly identify the amount of power held by evaluation targets. I followed the definition of power as the ability to achieve goals despite the wishes of others and operationalized higher power as having the control over extra earnings in the study. However, I did not provide participants with details about how points earned during the study would be transferred into cash payments. Additionally, a narrow gap between the maximum and minimum cash payments advertised to participants might not have been effective. Therefore, participants were unlikely to recognize ample differences in the ability to affect material gains. Furthermore, since lower-power evaluation targets did not have access to distributing extra earnings in the study, they lacked the capability to retaliate against observers who punished them. In comparison with higher-power targets, denying lower-power targets this capability removed any chance for retaliation.

Second, the approach to manipulating status was slightly excessive and complex. Plenty of participants reported low believability in the contrast sensitivity test, which undoubtedly impacted their experiences with fictitious partners. Additionally, the crafted test performances, as well as demographic and academic information utilized to differentiate higher and lower status, were perceived as somewhat bogus. Several participants noted that profiles of the partners aligned perfectly with two extreme stereotypes of people. Moreover, without crossing the demographic and academic characteristics of partners, this information could have ended up as potential

confounding factors. Taken together, a simplified method for status manipulation is possible.

Third, although power and status are conceptually and empirically distinct, participants clearly conflated the two constructs in the study. Rejection rates were particularly high in two experimental conditions where the evaluation targets had lower power with higher status or higher power with lower status relative to participants. Study instructions indicated that status was tied to performance of the game where players worked together to earn tokens. That is, perceived competence was somehow associated with the ability to obtain resources. As a result, it is very likely that participants considered higher-status targets to be powerful and those with lower status to be less powerful in the success of obtaining tokens. Even when additional questions were included to more explicitly assess perceived levels of power, responses from participants still identified a translation of status to the control over material outcomes.

Fourth, the nature of the moral violation employed in the study was not adequately strong. Survey responses show that across experimental conditions participants found the conduct of the violators fairly excusable. Moreover, during the game, a third option which allowed the violators to play neutrally by not sending messages to partners did not render the violators' behavior of sending deceptive messages unacceptable to participants. Although it reflected a deliberate intent to serve one's own interests at the expense of others, participants did not appear to react accordingly to such indication. After all, sending false messages in a game setting to earn tokens could be justified as a competitive behavior. As a result, participants might

not have identified with a purpose to punish observed deception; not to mention they had to punish at the cost of their own potential earnings.

Finally, as much as the victim (i.e., the receiver, Partner B) was given both a limited role and equivalent amounts of power and status to participants, they might still have affected participants' moral decision-making process out of potential preferences for similar others. During the briefing, some participants reflected that they punished the violators in order to satisfy their high-status victim partners while others emphasized that they chose to punish more when their decisions were known to the victim partners compared to when decisions were kept anonymous.

## Chapter 7: Conclusion

In this chapter, I will first provide a discussion that integrates findings from both Study 1 and Study 2. Then an overall conclusion will connect implications of these studies to the broader literature on power, status, and morality. In the end, I will close with potential avenues for future research.

### Section 1 Discussion

My dissertation aimed to address how the levels of power and status of moral violators affect reactions from observers of the violations. I approached the question by first assuming that previous moral expectations developed by the observer about the violator play a role. Additionally, I considered the relative resources accessible to the violator to be an important factor. Taken together, I proposed that, prior to the violation, the observer would form moral expectations about the violator on the basis of the amount of power and status held by the violator. Later when witnessing immorality committed by the violator, the observer would judge and punish, taking into account moral expectations about the violator as well as the resources attached to the power and status positions occupied by the violator. Following my proposed theory, I made and tested multiple predictions regarding outcomes of the two studies.

First, I predicted that observers would develop lower moral expectations about higher-power relative to lower-power evaluation targets. Results from Study 1 supported this hypothesis, but no supporting evidence was found in Study 2. Specifically, in Study 1, participants expected the evaluation target who remotely or

hypothetically had power over them to be less moral. However, in a context like Study 2, where participants were subject to the power of the target person they interacted with, they anticipated similar levels of morality from targets with either higher or lower power. It is plausible that the power manipulations employed in Study 2 did not successfully deliver differential levels of perceived power. Alternatively, participants associated higher status with higher power, which is not uncommon in social psychological experiments. In other words, the positive effect of higher status on moral expectations might have overshadowed the negative effect of higher power, leading to non-significant findings.

In terms of status, I predicted that observers would develop higher moral expectations about higher-status compared to lower-status evaluation targets. Both Study 1 and Study 2 lent strong support to this hypothesis. Indeed, regardless of context, evaluation targets who were conferred greater respect from participants received expectations of a higher moral standing.

Given the assumption of a moral component to the status attainment process in the literature, I hypothesized that observers would build moral expectations about evaluation targets more on the level of status than on the level of power held by the targets. Findings from both studies supported the prediction. When power and status were examined simultaneously, relative to power, the amount of status not only more significantly predicted moral expectations but also contributed to a greater magnitude of the effect. However, results might have reflected an order effect in Study 1 where participants always responded to questions about moral expectations right after being introduced the status manipulation. Also, in Study 2 there were multiple status cues,



including contrast sensitivity test and demographics, compared with only one method of power manipulation. In addition, although analyses from Study 1 revealed no interaction between power and status, tests conducted in Study 2 suggested a positive interactive effect of higher status with higher power on moral expectations.

Furthermore, I predicted that observers of moral violations would judge and punish higher-power violators more harshly compared to lower-power violators. Results only partially supported this hypothesis. Across two studies, participants perceived the conduct of violators as immoral regardless of the amount of power held by the violators. Regarding punishment, participants proposed tougher sanctions for higher-power relative to lower-power violators in Study 1 but did not punish them differently in Study 2. Several explanations are possible for the non-significant findings from the second study. Moral expectations did not vary by level of power, and therefore did not translate into differential punishment decisions of participants. Moreover, to impose a penalty was materially costlier for participants when they personally experienced instead of simply perceiving the power of violators. Alternatively, the conflation of perceived power and status by participants might have affected their decisions to punish.

To examine similar outcomes with respect to status order, I predicted that observers of moral violations would judge the act of higher-status violators more strictly but punish them less severely compared to lower-status violators. Supporting evidence for this hypothesis was limited. Results from the two studies indicated harsh views on the conduct of violators across the status spectrum. As to punishment, compared to those with lower status, higher-status violators received weaker sanctions

in Study 1 but were not penalized differently in Study 2. It is likely that participants in the second study perceived those with greater status as powerful in determining the earnings of others, and therefore would like to punish higher-status violators. Alternatively, participants might have simply felt frustrated about the deceptive behavior of higher-status violators.

Finally, concerning the differential risks of retribution, I predicted that observers of moral violations would punish higher-power violators less severely compared to lower-power violators when these violators could retaliate. However, I found no support for this hypothesis in Study 2. Considering the constraint that lower-power violators were not really capable of retribution, participants should have been more sensitive to the ability of higher-power violators to make reprisals. Instead, participants allocated similar amounts of punishment for both types of violators when facing either a low risk or a high risk of retaliation. Therefore, as opposed to my prediction, results indicated that fear of retaliation did not affect the punishing behavior of participants. Alternative explanations include unsuccessful implementations of risky scenarios and power manipulation.

#### Limitations

With respect to explanations about my predictions that failed to be supported by data, two main possibilities exist. To begin, my proposed theory could have incorrectly assumed how individuals respond to moral violations and mistakenly did not identify what types of moral violations were to be measured. As revealed in my findings, participants did not judge or punish differently on the basis of the power and

status held by the violators. However, I argue that it is not because the power and status characteristics of violators do not affect the reactions of observers, but because I failed to connect those characteristics to the violators' behavior. Logically, controlling for all other factors, including power and status, observers should apply relevant moral norms to a specific type of violation, thus rendering similar responses. If these norms have nothing to do with the attainment or exertion of power and influence, observers are not likely to react differentially to violators holding varied levels of power and status. In other words, when the immoral conduct does not concern whether or not the violators manage the amount of power and status they have in a morally acceptable manner, the observers may overlook the power and status characteristics of the violators. They may apply moral norms associated with that specific type of conduct, which would lead to no differences in the reactions to various types of violators. As a result, it is important to appropriately define moral violations, allowing the effects of power and status to come into play.

Moreover, methodological limitations could have led to the non-significant findings of my studies. Although the laboratory environment in Study 2 more sophisticatedly created an experience for participants to witness and react to moral violations compared to Study 1, the research design did not appropriately control for the correlation between power and status. As discussed in Chapter 6, the manipulation of status as a perceived competence associated with an ability to accumulate material resources might have facilitated the conflation of perceived power and status by participants. Therefore, the predicted opposing effects of violators' power and status on observers' punishment decisions could have negated each other. Additionally,

deceptive actions aligning with the purpose of the games were likely justified and even seen as a competent behavior for higher-status violators. Furthermore, given no details about the retaliatory capacity of violators with respect to material loss, participants did not appear to identify differential risks of retaliation for punishing the violators. Instead, some participants treated the high-risk condition as an opportunity to publicly communicate their dissatisfaction. In the next section, I addressed possible improvements for my studies if I were to conduct the research again in the future.

There are other limitations of the studies worth mentioning. First, results from the laboratory experiments were not able to replicate what I found in the online vignette study. When similar measures from Study 1 were investigated further in a more controlled environment of Study 2, several hypotheses ended up not being supported. The association between higher power and lower moral expectations had weakened in the second study partially because of unsuccessful power manipulations. Moreover, participants punished differently on the basis of violators' power and status in Study 1 but invariably penalized violators in Study 2. Such changes in sanctioning behavior could result from the experimental setting of the second study where participants were directly subject to the power and status of interacting partners rather than in hypothetical scenarios. Alternatively, it could be due to substantial costs entailed. All in all, caution is needed when interpreting and drawing conclusions from the inconsistent results.

Second, examples of moral violations utilized in my research included only deception and reckless damage to property. A deceptive action can be justified in a game setting, whereas hypothetically damaging a parked car without injury may seem

even less harmful. While the immoral behaviors were depicted as unambiguous and obtrusive, the research settings diminished their potentially negative consequences. It is likely that as the violations become more serious, observers would alter punishing behavior. Conceivably, what it means to be in violation of moral principles varies by person and context.

Third, I did not include emotion assessments in Study 2, out of concerns for potential spillover effects resulting from the initial assignments of participants to power and status positions, as research has indicated (Lovaglia and Houser 1996). I introduced a negative emotion index in Study 1 for preliminary analysis. Although results were not significant, they captured some aspects of the sentiments at play. Further research is required to isolate and fully examine the emotional factors involved in judging and punishing immoral conduct.

Finally, the artificial and highly controlled experimental settings in both studies could not represent individual experiences in the real world. The controlled environments allowed for testing hypotheses and causation with more precision and certainty. However, because they did not create realistic situations, the responses of participants documented in the research might not have reflected the true indicators of these complex behavior in real-life situations.

### Section 2 Overall Conclusion

This research describes a series of structural and psychological factors contributing to the responses of individuals who witness moral violations. In particular, the research centers on the contributing roles of prior moral expectations about

violators as well as the resources available to violators. Much of the research evidence reveals an association of moral expectations with the levels of power and status held by the violators. However, these expectations developed by observers, along with the retaliation risks they face for punishing the violators, do not necessarily lead observers to make differential judgment and punishment decisions. Overall, the results speak to the resilience of power and status order where, relative to their lower-standing counterparts, higher-power violators are likely not to be punished as harshly and higher-status violators are likely to be punished more leniently for breaking moral codes.

My work extends research in the group processes tradition by exploring a moral component in the development of power and status hierarchies. Previous investigations suggested a connection between morality and the characteristics of power and status. Specifically, the utilization of power for personal gains is seen as selfish (Willer et al. 2012, 2005), whereas having status makes individuals appear fair and helpful (Flynn 2003; Flynn et al. 2006). My research establishes a link between expectations of lower morality and higher power as well as between expectations of higher morality and higher status. The association between power and moral expectations is relatively weak because as an attachment to a structural position, power is affected by both the boundary of the structure and the way it is being exercised. As I argued, having the ability to abuse power does not necessarily mean one would wield that power in an abusive manner. Conversely, morality is perceived as an element of attaining status that is based on prosocial contributions to groups.

Conflating power and status in my experiment helps further the understanding of the ways the two constructs interact. Although power and status are theoretically distinct, due to their strong correlation, the differences sometimes appear to become lost in the minds of individuals. Compared to being remotely affected in Study 1, in a context like Study 2 where individuals were subject to the power and status of interacting partners, they more often regarded those with higher status as powerful and those with lower status as less powerful in effecting changes in material outcomes. Plausible reasons include that individuals were more likely to witness competent performances or experience the influence of those holding higher status. Therefore, they might have missed experimental cues about the incongruent amounts of power and status held by the partners. Alternatively, they might have had difficulty reconciling the inconsistency and decided to simply follow the cues about perceived status. Furthermore, such transference between power and status reflects the meritocratic beliefs that high-status persons should or would exhibit the ability to control resources. Altogether, power and status are highly correlated and often conflated in the eyes of the observers.

This research advances work on status processes by articulating how contextual beliefs of competence facilitate to maintain the influence of status. For instance, a well-respected person in the workplace might be punished less harshly for hitting a parked car because their perceived competence with respect to job performance is not impacted by their misconduct. Likewise, individuals who are believed to excel at a game may not be penalized severely for lying to partners when they are seen as playing strategically and showcasing their skills. Therefore, as long as the counter-normative

behavior does not contradict beliefs of competence, a high-status person is likely to retain influence over others.

In addition, the research helps shed light on both the effects of evaluation targets' low power and low status on the perceived morality developed by observers. Specifically, having the least amount of power did not seem to affect the judgment and punishment decisions of observers. On the other hand, having the least amount of status prompted observers to form lower moral expectations and apply tougher sanctions for wrongdoings. Similarly, observers were less likely to consider low-status evaluation targets to be hypocritical for immoral conduct compared to those with higher status. It is plausible that observers attribute the low status rank of the targets to prior misbehavior. Relative to those with high status, when the low-status evaluation targets commit moral violations, observers may find it less surprising and punish more severely for validating low moral qualities.

#### Future Directions

To start, I offer an overview of possible methods to improve my study design in the future provided that the predictions are true. I would still apply an experimental methodology as it is the most appropriate way to test the elements of my proposed theory. First, to better control for its correlation with power, the manipulation for status would not be associated with an ability to acquire material resources. Task performance and completion are equally useful in producing perceptions of competence for various levels of status. In addition, to limit potential confounding effects, I would focus on specific status characteristics rather than diffuse characteristics or more thoroughly



diversify and compare multiple attributes of the evaluation targets. Meanwhile, the amount of power could vary by the extent of behavioral change in those who are subject to the power. For instance, supervisors could exercise power by giving orders to subordinates. Second, the devised moral violations should not confuse the purposes of other tasks implemented in the experiment. Otherwise, participants may utilize standards in addition to morality in evaluating the violations. For example, verbal abuse and other types of bullying behavior during communication with interacting partners would not be expected or excusable. Other examples include incidents of bribery, embezzlement, and fraud. Third, to more successfully instill fear of retaliation, it would be beneficial to set precedents for revengeful acts, letting participants recognize the retaliatory capacity of violators. I predict that observers would respond differently when violators can retaliate against them. The reason behind different responses is not so much the means or setting as the potential damage that the violators could bring onto the observers. Therefore, it is important for observers to be fully aware that violators can and will retaliate when the violators see fit.

This research has broader implications for studies in sociological social psychology. Despite a resilient power and status order in groups after moral violations, responses may in fact be dynamic at the individual level. That is, individuals could be reacting to the change of power and status cues in a variety of aspects. For one, consistent perceptions of behavior with moral expectations may provoke negative sentiments toward powerful violators, whereas inconsistencies between perceived and expected behavior are likely to intensify frustration with high-status violators. Additionally, different types of immoral behavior could trigger distinctive emotional

responses in observers that affect approaches to addressing the immorality. For example, feeling distressed could help direct actions toward reducing the suffering of victims while anger likely motivates sanctions to violators. As discussed earlier, emotion is a crucial factor in defining the moral meanings of the situation and deciding how to respond accordingly, and therefore is worthy of greater scrutiny.

Other aspects to consider include trust and empathy. Moral expectations can illuminate discussions on trustworthiness and perceived empathy in that morality is a core element of trustworthy and empathic relationships between individuals (Hoffman 2001; Simpson, Harrell, and Willer 2013). Emerging questions for this line of research can be: do moral expectations affect trust in persons who have differential levels of power and status? Further, would individuals empathize with others more if they believed themselves to have a higher moral character? How would empathy affect the responses of observers to both victims and violators? Inquiries into group dynamics are equivalently meaningful. For example, when an immoral incident takes place in a group, how would the group cope with the violation and reestablish trust between members at various power and status positions? Answers to these questions are particularly imperative in the event of a moral violation.

The differential processes that observers attribute status to evaluation targets potentially affect the ways observers judge after the targets commit violations. I assumed a competence-based approach to attaining status in the studies; however, in reality, people confer status for varying conditions and reasons, and these contexts may add complexity in investigating observers' reactions. An example would be a potential moderation of social identity. Despite a widely-recognized high standing, an out-group

membership identified by observers could mean less affinity and thus stricter judgment for out-group higher-status violators relative to those who enjoy in-group favoritism. In addition, what constitutes the group boundaries have implications for the type of act that may or may not be defined as immoral. Furthermore, similar to the distinction between observed and relative contexts in my experiments, research shows that the status order formed in a person's immediate network compared with loose connections had a stronger effect on individual psychological well-being (Anderson et al. 2012). That is, the meanings and commitment that observers attach to the status relations could also affect responses to moral violations committed by individuals who are situated in these relations. Overall, the above discussions explore potential directions that this line of research can take.

Relative to persons of differential power, the retaliatory ability of those with status is less clear regarding the means and extent of making a reprisal. It is conceivable that powerful violators are capable of utilizing material resources to carry out a retaliation. In comparison, violators who have greater status than observers appear to have a diversity of methods to resort to. For example, they may wield influence to organize collective efforts against observers who punish them in the first place. Or, they could try overturning the punishment decisions of the observers. Furthermore, they are likely to seek positions of power and then use the resources accessible to the positions. Therefore, subsequent studies are needed to clarify the potential retaliatory behavior of high-status individuals.

This research offers a number of directions worthwhile to pursue regarding connections between the features of moral violations and the power and status

relationships between the parties involved. As the literature has shown, both negative intentions and contradictions to perceived competence are critical in judging high-status violators (Shaw and Skolnick 1996; Wahrman 1970). Further, as the severity of violations intensifies, lenient treatments toward high-status violators may become less likely. Another related aspect in responding to moral violations is ambiguity which can refer to the process of defining immorality or attributing accountability to violators. For instance, equivocally defined moral violations may result in permissive attitudes of observers toward violators at higher relative to lower standing. However, observers are likely to react strongly to high-power or high-status violators in particular when these violators are deemed undisputedly responsible for their behavior. The acknowledged liability could undermine the perceived legitimacy of high-ranking violators, deny their use of power and influence, and further contribute to their loss of power and status. Additionally, a lack of proper accountability arrangements could exacerbate condemnations on high-standing violators given their possibility of being able to escape without penalty.

Moreover, immoral conduct that concerns values other than care and justice deserves greater attention because the definition of morality varies by culture and context. According to Haidt (2012), moral principles involve other aspects such as loyalty to groups, legitimate authority, and a state of sanctity. For instance, observers may expect high-status members to display greater loyalty compared to low-status members by making sacrifices for groups. Additionally, as discussed above, higher-ranking violators of power and status are likely to be penalized severely for not acting in accord with the virtues of leadership. Conversely, those at lower standing could

receive tough sanctions for non-compliance. Another example would be a behavior that concerns the sanctity of life. To illustrate, consuming or making physical contact with specific contaminants could be a more offensive violation for higher-status relative to lower-status evaluation targets. Perhaps, to some religious traditions being pure and divine is the upmost trait of a high status. As a result, future research should be careful about generalizing beyond circumstances of a particular moral violation.

According to my proposed theory, cognitive and emotional responses to witnessed moral violations influence how individuals decide to take measures to restore the moral balance. It specifies that individuals would consider both developed expectations about and their relative positions to violators when making judgment and punishment decisions. This research fills in a piece of the human puzzle about maintaining the moral order when it clashes with elements of social stratification. Meanwhile, it calls for future endeavors to further develop a well-grounded understanding of the connection between power, status, and morality.

## Appendices

### Appendix A: Study 1 Study Materials

#### MTurk Recruitment Post Page

We are a team of researchers at the University of Maryland interested in attitudes toward people at various social standing. The study involves a survey which asks you to evaluate individuals and their behavior described in scenarios and a few questions about yourself. The entire study will take about 10 minutes to complete.

There are no known risks associated with participating in this study. There will be no direct benefits to you for participation, but it may help researchers. Your responses and opinions will remain anonymous. No information that we collect may personally identify you. Your participation is voluntary.

You will be rewarded \$1 for completing the survey with satisfactory quality. That is, we will consider answers to questions designed to determine whether you are paying attention. If we suspect that you do not qualify for the study, or proper attention was not given to responses, we may reject your submission and not issue payment. **Please note that you may only participate in this study once.**

If you have any questions about the research, you can contact the Principal Investigator at [GroupsResearchUMD@gmail.com](mailto:GroupsResearchUMD@gmail.com) or the University of Maryland Institutional Review Board at [irb@umd.edu](mailto:irb@umd.edu), (301) 405-4212.

By clicking “Accept” below, you are indicating that you currently live in the U.S., you are at least 18 years old and fluent in English, you have read the consent information, your questions have been answered, and you voluntarily agree to participate in this study.

The survey is conducted through another website. When you are ready to begin, click the link below to open the survey in a ***NEW*** browser tab or window. ***Make sure to leave this window open at all times.*** When you are finished, you will return to this page to paste the code into the box.

## Qualtrics Survey Instruction Screens – Relative Context

In this study, you will be presented with workplace scenarios and you will be asked to evaluate your perception and attitude toward individuals and events described in the scenarios.

On the next page, you will read paragraphs that talk about you in relation to your colleague, Jerry, in the workplace.

-----

### 1a. Higher Power

Imagine that you and Jerry both work for a company of 500 employees. Jerry directs the division you work in and has more power than you. Jerry has more control over decisions made in the division and is more likely to be able to overcome others' disagreement than you.

### 1b. Equal Power

Imagine that you and Jerry both work for a company of 500 employees. You both work in the same division and have equal amount of power. Jerry has the same level of control as you over decisions made in the division and is as likely as you are to be able to overcome others' disagreement.

### 1c. Lower Power

Imagine that you and Jerry both work for a company of 500 employees. You direct the division Jerry works in and have more power than Jerry. You have more control over decisions made in the division and are more likely to be able to overcome others' disagreement than Jerry.

### 2a. Higher Status

In terms of status, Jerry receives greater respect than you from colleagues. Jerry's contributions to the division are considered more valuable than yours. In addition, the colleagues more often turn to Jerry than you for opinion over work-related matters.

### 2b. Equal Status

In terms of status, Jerry receives equal respect as you do from colleagues. Jerry's contributions to the division are considered as valuable as yours. In addition, the colleagues equally turn to you and Jerry for opinion over work-related matters.

### 2c. Lower Status

In terms of status, Jerry receives less respect than you from colleagues. Jerry's contributions to the division are considered less valuable than yours. In addition, the colleagues more often turn to you than Jerry for opinion over work-related matters.

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Now please tell us how you would describe Jerry.

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Below is a list of characteristics. Please think about what type of person Jerry is regarding each pair of characteristic and place him on the scale with each end representing a different adjective.

|                 | 1                     | 2                     | 3                     | 4                     | 5                     | 6                     | 7                     | 8                     |              |
|-----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------|
| Not trustworthy | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Trustworthy  |
| Unfair          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Fair         |
| Honest          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Dishonest    |
| Not hardworking | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Hardworking  |
| Unkind          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Kind         |
| Helpful         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Not helpful  |
| Compassionate   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Hard-hearted |
| Untruthful      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Truthful     |
| Empathic        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Not empathic |
| Caring          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Uncaring     |
| Stingy          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Generous     |
| Friendly        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Unfriendly   |
| Principled      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Unprincipled |
| Selfish         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Selfless     |

-----

On the next page, you will learn about an incident that Jerry is involved.

-----

One day when you are leaving work, you see Jerry at the company garage. Jerry is driving toward the exit and does not see you. While making a turn, Jerry suddenly hits a parked car. The car's rear bumper then falls off. Jerry does not get out of the car and drives away.

-----

Now please think about the incident and indicate how you feel about Jerry's behavior on the following scales with each end representing a different adjective.

|                | 1                     | 2                     | 3                     | 4                     | 5                     | 6                     | 7                     | 8                     | 9                     | 10                    |                  |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|
| Not angry      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Angry            |
| Fearful        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Not fearful      |
| Guilty         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Not guilty       |
| Happy          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Unhappy          |
| Satisfied      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Dissatisfied     |
| Not frustrated | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Frustrated       |
| Not anxious    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Anxious          |
| Disappointed   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Not disappointed |

-----

Please read through the following statements concerning Jerry and Jerry's behavior in the incident and give your opinion. 1 represents strongly disagree and 8 represents strongly agree.

---

Jerry deserves to be fired from job.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

Jerry's behavior was moral.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

Jerry did not do it on purpose.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

This is an attention check. Please select three.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

I will inform the owner of the damaged car by leaving an anonymous note.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

I find Jerry to be a hypocrite.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

Jerry deserves to be socially excluded.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

Jerry should pay for the car repairs.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

Jerry's behavior was problematic.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

Jerry's behavior was excusable.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

Legal action should be taken against Jerry.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

## Power/Status Manipulation Checks

How powerful is Jerry compared to you?

|                                   |   |   |                          |   |   |                                   |
|-----------------------------------|---|---|--------------------------|---|---|-----------------------------------|
| Jerry has less power than me<br>1 | 2 | 3 | We have equal power<br>4 | 5 | 6 | Jerry has more power than me<br>7 |
|-----------------------------------|---|---|--------------------------|---|---|-----------------------------------|

---

How respected is Jerry compared to you?

|                                    |   |   |                           |   |   |                                    |
|------------------------------------|---|---|---------------------------|---|---|------------------------------------|
| Jerry has less status than me<br>1 | 2 | 3 | We have equal status<br>4 | 5 | 6 | Jerry has more status than me<br>7 |
|------------------------------------|---|---|---------------------------|---|---|------------------------------------|

## Qualtrics Survey Instruction Screens – Observed Context

In this study, you will be presented with workplace scenarios and you will be asked to evaluate your perception and attitude toward individuals and events described in the scenarios.

On the next page, you will read paragraphs that talk about Jerry in the workplace.

-----

### 1a. Higher Power

Jerry leads a large division in a company of 500 employees. Jerry has more power than most colleagues. Jerry has a great deal of control over decisions made in the division and is able to overcome others' disagreement most of the time.

### 1b. Equal Power

Jerry works in a large division in a company of 500 employees. Jerry has the same level of power as most colleagues. Jerry has average control over decisions made in the division and is sometimes able to overcome others' disagreement.

### 1c. Lower Power

Jerry works for a large division in a company of 500 employees. Jerry has less power than most colleagues. Jerry has little control over decisions made in the division and is barely able to overcome others' disagreement.

### 2a. Higher Status

In terms of status, Jerry receives more respect than most colleagues. Jerry's contributions are considered more valuable than others. In addition, the colleagues often turn to Jerry for opinion over work-related matters.

### 2b. Equal Status

In terms of status, Jerry receives an equal amount of respect as most colleagues. Jerry's contributions are considered just as valuable as others. In addition, the colleagues sometimes turn to Jerry for opinion over work-related matters.

### 2c. Lower Status

In terms of status, Jerry receives less respect than most colleagues. Jerry's contributions are considered less valuable than others. In addition, the colleagues rarely turn to Jerry for opinion over work-related matters.

-----

Now please tell us how you would describe Jerry.

---

Below is a list of characteristics. Please think about what type of person Jerry is regarding each pair of characteristic and place him on the scale with each end representing a different adjective.

|                 | 1                     | 2                     | 3                     | 4                     | 5                     | 6                     | 7                     | 8                     |              |
|-----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------|
| Not trustworthy | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Trustworthy  |
| Unfair          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Fair         |
| Honest          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Dishonest    |
| Not hardworking | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Hardworking  |
| Unkind          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Kind         |
| Helpful         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Not helpful  |
| Compassionate   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Hard-hearted |
| Untruthful      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Truthful     |
| Empathic        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Not empathic |
| Caring          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Uncaring     |
| Stingy          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Generous     |
| Friendly        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Unfriendly   |
| Principled      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Unprincipled |
| Selfish         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Selfless     |

-----



On the next page, you will learn about an incident that Jerry is involved.

-----

One day, Jerry is leaving work and heading the company garage. Jerry gets into a car and is driving toward the exit. While making a turn, Jerry suddenly hits a parked car. The car's rear bumper then falls off. Jerry does not get out of the car and drives away.

-----

Now please think about the incident and indicate how you feel about Jerry's behavior on the following scales with each end representing a different adjective.

|                | 1                     | 2                     | 3                     | 4                     | 5                     | 6                     | 7                     | 8                     | 9                     | 10                    |                  |
|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|
| Not angry      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Angry            |
| Fearful        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Not fearful      |
| Guilty         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Not guilty       |
| Happy          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Unhappy          |
| Satisfied      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Dissatisfied     |
| Not frustrated | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Frustrated       |
| Not anxious    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Anxious          |
| Disappointed   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Not disappointed |

-----

Please read through the following statements concerning Jerry and Jerry's behavior in the incident and give your opinion. 1 represents strongly disagree and 8 represents strongly agree.

---

Jerry deserves to be fired from job.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

Jerry's behavior was moral.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

Jerry did not do it on purpose.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

This is an attention check. Please select three.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

If I were there, I would inform the owner of the damaged car.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

I find Jerry to be a hypocrite.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

Jerry deserves to be socially excluded.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

Jerry should pay for the car repairs.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

Jerry's behavior was problematic.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

Jerry's behavior was excusable.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

---

Legal action should be taken against Jerry.

|                        |   |   |   |   |   |   |                     |
|------------------------|---|---|---|---|---|---|---------------------|
| Strongly disagree<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree<br>8 |
|------------------------|---|---|---|---|---|---|---------------------|

## Power/Status Manipulation Checks

How powerful is Jerry in the company?

|                          |   |   |                              |   |   |                           |
|--------------------------|---|---|------------------------------|---|---|---------------------------|
| Jerry has low power<br>1 | 2 | 3 | Jerry has average power<br>4 | 5 | 6 | Jerry has high power<br>7 |
|--------------------------|---|---|------------------------------|---|---|---------------------------|

How respected is Jerry in the company?

|                           |   |   |                               |   |   |                            |
|---------------------------|---|---|-------------------------------|---|---|----------------------------|
| Jerry has low status<br>1 | 2 | 3 | Jerry has average status<br>4 | 5 | 6 | Jerry has high status<br>7 |
|---------------------------|---|---|-------------------------------|---|---|----------------------------|

## Appendix B: Study 1 Supplemental Analysis

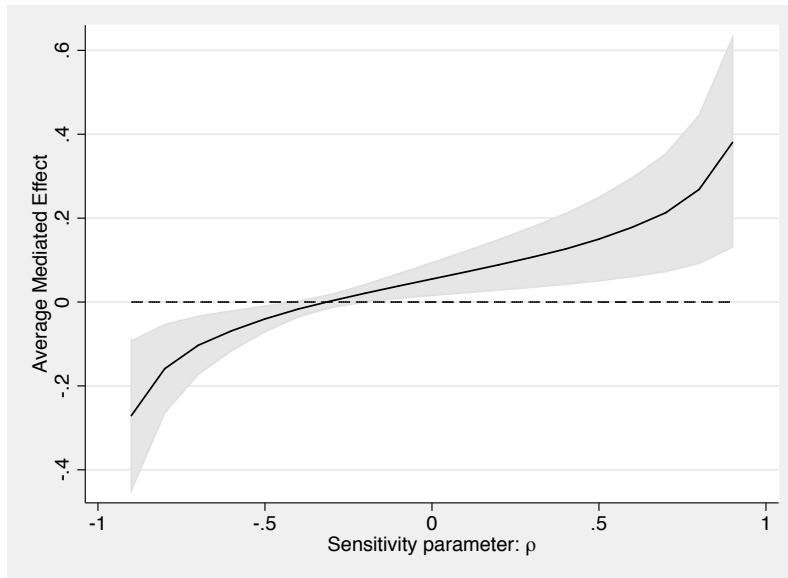
### Mediation Analysis Using Collapsed Data

The logic behind the results of Study 1 informed the exploratory causal analysis. Specifically, both power and status significantly affect moral expectations and punishment options. Therefore, I conducted mediation analysis to examine whether moral expectations mediate the effects of power and status on punishment for violators.

As reported in Chapter 5, moral expectations mediated the effect of power on moral punishment. I conducted an additional sensitivity analysis to assess the robustness of the result.<sup>15</sup> The analysis suggests that the mediated effect would become zero in the presence of unmeasured confounding variables that were moderately related ( $\rho = -0.313$ ) to the mediator and outcome even after conditioning on power level (see Figure B-1). In other words, the mediated relationship could turn out to be non-significant if the modestly correlated variables were included in the regression model.

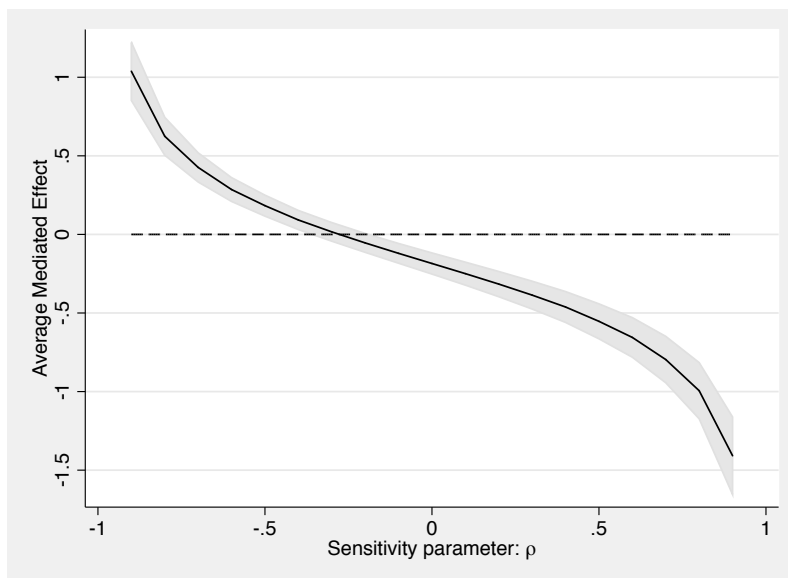
---

<sup>15</sup> Sensitivity analysis is designed to quantify how strong the confounder would have to be to change the conclusion being drawn about the direct and indirect effects (Hicks and Tingley 2011).



**Figure B-1** Sensitivity Analysis for the Effect of Power on Moral Punishment

In terms of status, results demonstrate a significant mediator of moral expectations between status and moral punishment. However, the sensitivity analysis shows that a moderate degree of unmeasured confounding ( $\rho = -0.276$ ) would render a mediated effect no longer significant (see Figure B-2).



**Figure B-2** Sensitivity Analysis for the Effect of Status on Moral Punishment

Results from Separate Data Collected in Relative and Observed Contexts

**Table B-1** Average Scores of Moral Expectations by Power and Status in Different Contexts

|              | Relative Context | Observed Context |
|--------------|------------------|------------------|
| Power        |                  |                  |
| High Power   | 5.28 (1.32)      | 5.40 (1.46)      |
| Equal Power  | 5.52 (1.50)      | 5.83 (1.24)      |
| Low Power    | 5.68 (1.48)      | 6.07 (1.30)      |
| Status       |                  |                  |
| High Status  | 6.02 (1.35)      | 6.49 (1.03)      |
| Equal Status | 5.96 (1.28)      | 6.06 (0.91)      |
| Low Status   | 4.50 (1.14)      | 4.74 (1.41)      |

Standard deviations in parentheses.

**Table B-2** T-Tests for Expectation Scores between Power Conditions by Context

|                  | t-value | N   |
|------------------|---------|-----|
| Relative Context |         |     |
| High to Equal    | -1.05   | 150 |
| Equal to Low     | -0.68   | 150 |
| High to Low      | -1.79   | 150 |
| Observed Context |         |     |
| High to Equal    | -1.96   | 150 |
| Equal to Low     | -1.15   | 150 |
| High to Low      | -2.97** | 150 |

\*\*\* p<.001, \*\* p<.01, \* p<.05; Two-tailed test

**Table B-3** *T-Tests for Expectation Scores between Status Conditions by Context*

|                  | t-value | N   |
|------------------|---------|-----|
| Relative Context |         |     |
| High to Equal    | 0.28    | 150 |
| Equal to Low     | 7.41*** | 150 |
| High to Low      | 7.49*** | 150 |
| Observed Context |         |     |
| High to Equal    | 2.73**  | 150 |
| Equal to Low     | 6.77*** | 150 |
| High to Low      | 8.65*** | 150 |

\*\*\* p<.001, \*\* p<.01, \* p<.05; Two-tailed test

**Table B-4** *Regression Analysis for Expectation Scores across Power and Status Conditions in Relative Context*

| Independent Variables | Unstandardized Coefficients | Standardized Coefficients |
|-----------------------|-----------------------------|---------------------------|
| Higher Power          | -0.182<br>(0.106)           | -0.104                    |
| Higher Status         | 0.763***<br>(0.106)         | 0.434                     |
| Female                | 0.377*<br>(0.179)           | 0.128                     |
| Age                   | 0.003<br>(0.009)            | 0.023                     |
| Race                  | 0.102<br>(0.075)            | 0.083                     |
| Education             | -0.074<br>(0.106)           | -0.043                    |
| Subjective SES        | -0.075<br>(0.059)           | -0.080                    |
| R-squared             | 0.2305                      |                           |
| N                     | 225                         |                           |

\*\*\* p<.001, \*\* p<.01, \* p<.05; Two-tailed test  
Standard errors in parentheses.



**Table B-5** Regression Analysis for Expectation Scores across Power and Status Conditions in Observed Context

| Independent Variables | Unstandardized Coefficients | Standardized Coefficients |
|-----------------------|-----------------------------|---------------------------|
| Higher Power          | -0.324**<br>(0.093)         | -0.195                    |
| Higher Status         | 0.879***<br>(0.093)         | 0.530                     |
| Female                | 0.069<br>(0.153)            | 0.025                     |
| Age                   | 0.002<br>(0.007)            | 0.016                     |
| Race                  | 0.004<br>(0.063)            | 0.003                     |
| Education             | -0.091<br>(0.092)           | -0.061                    |
| Subjective SES        | -0.001<br>(0.049)           | -0.001                    |
| R-squared             |                             | 0.3234                    |
| N                     |                             | 225                       |

\*\*\* p<.001, \*\* p<.01, \* p<.05; Two-tailed test  
Standard errors in parentheses.

**Table B-6** Average Scores of Moral Judgment and Punishment by Power in Different Contexts

|                  | Judgment    | Punishment  |
|------------------|-------------|-------------|
| Relative Context |             |             |
| High Power       | 7.23 (1.02) | 5.91 (1.24) |
| Equal Power      | 7.16 (1.09) | 5.67 (1.28) |
| Low Power        | 7.27 (0.83) | 5.33 (1.17) |
| Observed Context |             |             |
| High Power       | 7.30 (0.95) | 5.54 (1.11) |
| Equal Power      | 7.28 (1.08) | 5.43 (1.26) |
| Low Power        | 7.30 (0.93) | 5.48 (1.27) |

Standard deviations in parentheses.

**Table B-7** T-Tests for Judgment and Punishment Scores between Power Conditions by Context

|                  | Judgment | Punishment | N   |
|------------------|----------|------------|-----|
| Relative Context |          |            |     |
| High to Equal    | 0.36     | 1.14       | 150 |
| Equal to Low     | -0.68    | 1.72       | 150 |
| High to Low      | -0.29    | 2.93**     | 150 |
| Observed Context |          |            |     |
| High to Equal    | 0.13     | 0.55       | 150 |
| Equal to Low     | -0.14    | -0.21      | 150 |
| High to Low      | 0        | 0.32       | 150 |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ ; Two-tailed test

**Table B-8** Average Scores of Moral Judgment and Punishment by Status in Different Contexts

|                  | Judgment    | Punishment  |
|------------------|-------------|-------------|
| Relative Context |             |             |
| High Status      | 7.33 (0.85) | 5.65 (1.24) |
| Equal Status     | 7.08 (1.19) | 5.48 (1.36) |
| Low Status       | 7.24 (0.87) | 5.78 (1.14) |
| Observed Context |             |             |
| High Status      | 7.15 (1.21) | 5.24 (1.10) |
| Equal Status     | 7.32 (0.83) | 5.37 (1.21) |
| Low Status       | 7.42 (0.86) | 5.84 (1.26) |

Standard deviations in parentheses.

**Table B-9** T-Tests for Judgment and Punishment Scores between Status Conditions by Context

|                  | Judgment | Punishment | N   |
|------------------|----------|------------|-----|
| Relative Context |          |            |     |
| High to Equal    | 1.48     | 0.82       | 150 |
| Equal to Low     | -0.94    | -1.50      | 150 |
| High to Low      | 0.63     | -0.69      | 150 |
| Observed Context |          |            |     |
| High to Equal    | -0.97    | -0.71      | 150 |
| Equal to Low     | -0.74    | -2.30*     | 150 |
| High to Low      | -1.56    | -3.09**    | 150 |

\*\*\* p<.001, \*\* p<.01, \* p<.05; Two-tailed test

**Table B-10** Means of Emotional and Perceptual Measures by Power in Different Contexts

|                  | Negative Emotion | Purposeful Intent | Perceived Hypocrisy | Reporting Behavior |
|------------------|------------------|-------------------|---------------------|--------------------|
| Relative Context |                  |                   |                     |                    |
| High Power       | 7.23 (1.30)      | 4.67 (2.30)       | 5.71 (1.92)         | 6.19 (2.25)        |
| Equal Power      | 7.21 (1.32)      | 4.21 (2.34)       | 5.64 (1.74)         | 5.93 (2.23)        |
| Low Power        | 7.43 (1.37)      | 4.19 (2.13)       | 5.33 (1.79)         | 5.96 (2.03)        |
| Observed Context |                  |                   |                     |                    |
| High Power       | 7.47 (1.35)      | 3.73 (2.06)       | 5.33 (1.59)         | 7.44 (1.15)        |
| Equal Power      | 7.68 (1.44)      | 3.55 (2.49)       | 5.17 (2.05)         | 7.55 (1.00)        |
| Low Power        | 7.93 (1.36)      | 3.41 (2.35)       | 5.37 (1.91)         | 7.36 (1.16)        |

Standard deviations in parentheses.

**Table B-11** T-Tests for Emotional and Perceptual Measures between Power Conditions by Context

|                  | Negative Emotion | Purposeful Intent | Perceived Hypocrisy | Reporting Behavior | N   |
|------------------|------------------|-------------------|---------------------|--------------------|-----|
| Relative Context |                  |                   |                     |                    |     |
| High to Equal    | 0.13             | 1.19              | 0.22                | 0.69               | 150 |
| Equal to Low     | -1.04            | 0.07              | 1.06                | -0.08              | 150 |
| High to Low      | -0.92            | 1.33              | 1.23                | 0.65               | 150 |
| Observed Context |                  |                   |                     |                    |     |
| High to Equal    | -0.89            | -0.46             | 0.53                | -0.60              | 150 |
| Equal to Low     | -1.11            | 0.34              | -0.62               | 1.05               | 150 |
| High to Low      | -2.07*           | -0.11             | -0.14               | 0.42               | 150 |

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$ ; Two-tailed test

**Table B-12** Means of Emotional and Perceptual Measures by Status in Different Contexts

|                         | Negative Emotion | Purposeful Intent | Perceived Hypocrisy | Reporting Behavior |
|-------------------------|------------------|-------------------|---------------------|--------------------|
| <b>Relative Context</b> |                  |                   |                     |                    |
| High Status             | 7.34 (1.37)      | 4.19 (2.32)       | 5.75 (1.82)         | 6.09 (2.19)        |
| Equal Status            | 7.23 (1.29)      | 4.13 (2.11)       | 5.69 (1.92)         | 5.76 (2.29)        |
| Low Status              | 7.31 (1.35)      | 4.75 (2.33)       | 5.24 (1.70)         | 6.23 (2.01)        |
| <b>Observed Context</b> |                  |                   |                     |                    |
| High Status             | 7.83 (1.45)      | 3.33 (2.30)       | 5.67 (1.83)         | 7.36 (1.37)        |
| Equal Status            | 7.65 (1.24)      | 3.43 (2.22)       | 5.31 (1.85)         | 7.44 (0.89)        |
| Low Status              | 7.60 (1.47)      | 3.57 (2.39)       | 4.91 (1.82)         | 7.55 (1.00)        |

Standard deviations in parentheses.

**Table B-13** T-Tests for Emotional and Perceptual Measures between Status Conditions by Context

|                         | Negative Emotion | Purposeful Intent | Perceived Hypocrisy | Reporting Behavior | N   |
|-------------------------|------------------|-------------------|---------------------|--------------------|-----|
| <b>Relative Context</b> |                  |                   |                     |                    |     |
| High to Equal           | 0.49             | 0.15              | 0.17                | 0.91               | 150 |
| Equal to Low            | -0.37            | -1.69             | 1.53                | -1.33              | 150 |
| High to Low             | 0.12             | -1.48             | 1.76                | -0.39              | 150 |
| <b>Observed Context</b> |                  |                   |                     |                    |     |
| High to Equal           | 0.81             | -0.25             | 1.20                | -0.42              | 150 |
| Equal to Low            | 0.24             | -0.39             | 1.33                | -0.69              | 150 |
| High to Low             | 0.97             | -0.63             | 2.55*               | -0.95              | 150 |

\*\*\* p<.001, \*\* p<.01, \* p<.05; Two-tailed test

Flyer for Advertising the Study

# Participate in a lab study!



## **Group Coordination and Strategy Game**

In the study participants will be working with others via computers on a group game that involves individual strategy and collective effort. The entire study lasts about 45 minutes and pays between \$12 and \$15 based on performance in the game.



**Time: Varies by session**

**Location: Lefrak Hall (across from South Campus Dining Hall)**







**Sign up at [go.umd.edu/signmeup](http://go.umd.edu/signmeup)**

**Ask questions at [hos61635@umd.edu](mailto:hos61635@umd.edu)**

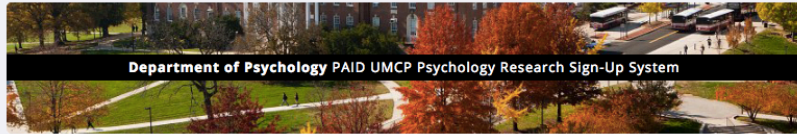
Registration Website Administered by the Group Processes Lab at the Sociology  
Department



**Study Information**

|                             |  |  |
|-----------------------------|--|--|
| <b>Study Name</b>           | Group Coordination and Strategy Game   |  |
| <b>Study Type</b>           |  <b>Standard (lab) study</b><br>This is a standard lab study. To participate, sign up, and go to the specified location at the chosen time.         |  |
| <b>Pay</b>                  | \$12-15 OR Extra Credit + \$2-5  |  |
| <b>Duration</b>             | 45 minutes   |  |
| <b>Sign-Up Restrictions</b> | You must NOT have signed up or completed ANY of these studies:<br><a href="#">Problem-Solving in Task Groups</a>   |  |
| <b>Abstract</b>             | Study individual strategy and collective effort in a group game  |  |
| <b>Description</b>          | This study is being conducted at the Office of Academic Computing Services (OACS) computer labs in Lefrak Hall at the University of Maryland. During the study, you will work with other participants in a group game via computers. |  |
| <b>Researchers</b>          | Kelly Beavan <br>☎ (443) 812-6912  |  |
|                             | Hsiang-Yuan Ho    |  |
|                             | Elena Lonskaya    |  |
|                             | Test Researcher   |  |
|                             | Gordon Rinderknecht   |  |
| <b>Deadlines</b>            | Sign-Up: 5:00 PM the day before the appointment<br>Cancellation: 24 hour(s) before the appointment   |  |

# Registration Website Administered by the Psychology Department



## Study Information

|                    |  |   |
|--------------------|--|---|
| <b>Study Name</b>  | Group Coordination and Strategy Game   |   |
| <b>Study Type</b>  |  <b>Standard (lab) study</b><br>This is a standard lab study. To participate, sign up, and go to the specified location at the chosen time.         |   |
| <b>Pay</b>         | 12-15 Dollars  |   |
| <b>Duration</b>    | 45 minutes   |   |
| <b>Abstract</b>    | Study individual strategy and collective effort in a group game  |   |
| <b>Description</b> | This study is being conducted at the Office of Academic Computing Services (OACS) computer labs in Lefrak Hall at the University of Maryland. During the study, you will work with other participants in a group game via computers. |   |
| <b>Researcher</b>  | Hsiang-Yuan Ho   |  |
| <b>Deadlines</b>   | Deadlines that occur on a Saturday or Sunday will be moved back to Friday<br>Sign-Up: 6 hour(s) before the appointment<br>Cancellation: 24 hour(s) before the appointment  |   |



Appendix D: Study 2 Study Materials

Partner Profile Sheet – Used in Condition 1 (Violators have higher power and higher status than observers.)

|                                 | Partner A        | Partner B             | You    |
|---------------------------------|------------------|-----------------------|--------|
| Gender                          | Male             | Female                |        |
| Age                             | 24               | 19                    |        |
| Level of Study                  | Graduate student | Undergraduate student |        |
| College GPA                     | 3.9              | 2.1                   |        |
| Contrast Sensitivity Test Score | 8 / 10           | 2 / 10                | 3 / 10 |
| Control over Bonus Rewards      | v                |                       |        |

Partner Profile Sheet – Used in Condition 2 (Violators have lower power and higher status than observers.)

|                                 | Partner A        | Partner B             | You    |
|---------------------------------|------------------|-----------------------|--------|
| Gender                          | Male             | Female                |        |
| Age                             | 24               | 19                    |        |
| Level of Study                  | Graduate student | Undergraduate student |        |
| College GPA                     | 3.9              | 2.1                   |        |
| Contrast Sensitivity Test Score | 8 / 10           | 2 / 10                | 3 / 10 |
| Control over Bonus Rewards      |                  | v                     | v      |

Partner Profile Sheet – Used in Condition 3 (Violators have higher power and lower status than observers.)

|                                 | Partner A             | Partner B        | You    |
|---------------------------------|-----------------------|------------------|--------|
| Gender                          | Female                | Male             |        |
| Age                             | 19                    | 24               |        |
| Level of Study                  | Undergraduate student | Graduate student |        |
| College GPA                     | 2.1                   | 3.9              |        |
| Contrast Sensitivity Test Score | 2 / 10                | 8 / 10           | 7 / 10 |
| Control over Bonus Rewards      | v                     |                  |        |

Partner Profile Sheet – Used in Condition 4 (Violators have lower power and lower status than observers.)

|                                 | Partner A             | Partner B        | You    |
|---------------------------------|-----------------------|------------------|--------|
| Gender                          | Female                | Male             |        |
| Age                             | 19                    | 24               |        |
| Level of Study                  | Undergraduate student | Graduate student |        |
| College GPA                     | 2.1                   | 3.9              |        |
| Contrast Sensitivity Test Score | 2 / 10                | 8 / 10           | 7 / 10 |
| Control over Bonus Rewards      |                       | v                | v      |

## Questions Regarding Moral Expectation Index and Power/Status Manipulation

### Checks Presented Before the Group Game

Below is a list of characteristics. Please think about what type of person **Partner A** would be regarding each pair of characteristic and select a number on the scale with each end representing a different adjective.

I expect **Partner A** to be a person who is...

|                 | 1                     | 2                     | 3                     | 4                     | 5                     | 6                     | 7                     | 8                     |              |
|-----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------|
| Unfair          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Fair         |
| Honest          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Dishonest    |
| Untruthful      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Truthful     |
| Selfish         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Selfless     |
| Principled      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Unprincipled |
| Stingy          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Generous     |
| Caring          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Uncaring     |
| Friendly        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Unfriendly   |
| Not trustworthy | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Trustworthy  |
| Unkind          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Kind         |
| Empathic        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Not empathic |
| Not hardworking | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Hardworking  |
| Compassionate   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Hard-hearted |
| Helpful         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Not helpful  |

How much do you agree or disagree with the following statements. *1 represents strongly disagree and 8 represents strongly agree.*

|  | 1                     | 2                     | 3                     | 4                     | 5                     | 6                     | 7                     | 8                     |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. <b>Partner A</b> is powerful in affecting others' final earnings. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. <b>Partner A</b> is respected in the group.                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. <b>Partner A</b> is a powerful member in the group.               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. <b>Partner A</b> is a valuable member to the group.               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

## Group Game Instruction Screens – Introduction

The main task we ask you to do today is to participate in a group game with your assigned partners. The game has been widely used by researchers to investigate group decision-making process. The game involves three roles: a SENDER, a RECEIVER, and an OBSERVER. You and your partners will be randomly assigned the roles.

The format of the game is that the OBSERVER will watch how the SENDER and the RECEIVER make decisions based off a payoff table and make interventions if necessary.

-----

In past research, the game was mostly played by two people, a SENDER and a RECEIVER. In our study today, a new role, OBSERVER, is integrated to examine the impact of a third party with monitoring responsibility.

In an original design where there are a SENDER and a RECEIVER, a payoff table is displayed to the SENDER at the beginning of any round. The table shows two options concerning both players' earnings. The SENDER has an opportunity to send a message that reveals payoff information to the RECEIVER. On the other hand, the RECEIVER gets to determine both players' earnings by choosing an option.

In today's game, an OBSERVER is added to watch the decision-making process. The OBSERVER is the only player who will be given full information in each round, including payoff tables, messages, and earning outcomes. The OBSERVER cannot affect others' decisions but earnings. The OBSERVER's task is important because they are given details to other players' action and are able to alter earning outcomes in each round.

-----

At the beginning of any given round, the SENDER and the OBSERVER will read a payoff matrix similar to the following table. However, the RECEIVER will be blind to the information.

|          | Sender | Receiver |
|----------|--------|----------|
| Option X | 10     | 20       |
| Option Y | 20     | 10       |

The SENDER will then select an action from below.

- ▶ Send Message A to RECEIVER: "Option X will earn you more points than option Y."
- ▶ Send Message B to RECEIVER: "Option Y will earn you more points than option X."
- ▶ Do not send a message to RECEIVER.

In this example, Message A tells the truth and Message B gives false information about the payoff options. Message A potentially helps the RECEIVER earn greater points, while Message B can give the SENDER an advantage. However, the SENDER is also offered a choice to not send messages at all.

If the SENDER chooses Message B, which is lying to the RECEIVER in this case, the OBSERVER will be able to punish by taking away the SENDER's earnings three times as much as the amount the OBSERVER invests (The OBSERVER will be given 10 points each round as a punishment fund).

If the SENDER chooses Message A or not to send a message, the OBSERVER cannot punish the SENDER.

In the end, the RECEIVER will have to decide to pick Option X or Option Y.

-----



In terms of earning outcomes, here are scenarios for this example.

|                 | <b>Sender</b> | <b>Receiver</b> |
|-----------------|---------------|-----------------|
| <b>Option X</b> | 10            | 20              |
| <b>Option Y</b> | 20            | 10              |

– If the SENDER chooses Message A (truth) or not to send a message –  
The OBSERVER will get to keep all 10 points.  
The SENDER and the RECEIVER will earn the specified number of points based on the option selected by the RECEIVER.

– if the SENDER chooses Message B (lie) –  
The OBSERVER will earn the remaining points not invested in punishment.  
The SENDER will earn an amount of points specified in the selected option and deducting punishment.  
The RECEIVER will earn points specified in the selected option.

\*In the case where the amount of punishment exceeds what the SENDER should earn according to the selected option, the SENDER will then earn 0 point. The extra punishment investment will be returned to the OBSERVER.

-----

Your group will complete 6 rounds of the game. Points earned in each round will be accumulated to the end of game. The three roles have different earning methods, so please read carefully.

#### SENDER & RECEIVER

Earnings will be determined by the payoff option selected by the RECEIVER in that given round.

If the amount of punishment is greater than what the SENDER is supposed to receive according to the payoff option, the SENDER will earn 0 point in that round. There will be no negative values in earnings in any given round.

#### OBSERVER

The OBSERVER will be given 10 points at the beginning of each round. The OBSERVER will keep the remaining points as earnings after deducting the punishment cost (i.e. 10 - amount invested in punishment). Points earned cannot be used for punishment in other rounds.

If the amount of punishment is greater than what the SENDER is supposed to receive according to the payoff option, the extra invested amount will be returned to the OBSERVER.

#### **\*\*Remember\*\***

The amount of your compensation today will be determined by 1) points earned from the group game and 2) bonus points distributed at end of the study.

-----

Before assigning roles to your group, we want to make sure you understand rules of the game. Please answer the following questions.

1. We explained that only two roles will read a payoff table at the beginning of each round. Who are they? (Select all that apply)

|              |
|--------------|
| The sender   |
| The receiver |
| The observer |
| No one       |

2. What role will receive messages from the SENDER and choose between payoff options?

|              |
|--------------|
| The sender   |
| The receiver |
| The observer |
| No one       |

3. Under what condition can the OBSERVER punish the SENDER?

|  |
|--|
| Anytime                                      |
| When the sender chooses a deceptive message  |
| When the sender does not send a message      |
| The observer cannot punish the sender at all |

-----

Here is your group's role assignment:

**You are the OBSERVER**

You are given the opportunity to oversee group decision-making and make necessary interventions by punishing the SENDER.

Only you will be given full information, including payoff tables and outcomes.

Partner A is the **SENDER**

Partner B is the **RECEIVER**

Click CONTINUE and run a practice round with your partners on the next page.

## Group Game Instruction Screens – Messages Used to Manipulate Retaliation Risk

### 1a. Low risk in the first half of the game and high risk in the second half

The group practice is now complete. The 6-round group game will begin on the next page and a new rule regarding the OBSERVER's punishment has been implemented.

**In the first three rounds of the game, the OBSERVER's punishment decisions will be anonymous.** In addition, both the SENDER and the RECEIVER will not receive earnings information affected by punishment on the report page at the end of each round.

-----

Your group has now completed 3 rounds of the game. A different rule regarding the OBSERVER's punishment has been implemented.

**In the next three rounds, the OBSERVER's punishment decisions will be made public at the end of each round.** Information about punishment will be revealed to group on the earnings report page after the RECEIVER chooses a payoff option.

### 1b. High risk in the first half of the game and low risk in the second half

The group practice is now complete. The 6-round group game will begin on the next page and a new rule regarding the OBSERVER's punishment has been implemented.

**In the first three rounds of the game, the OBSERVER's punishment decisions will be made public at the end of each round.** Information about punishment will be revealed to group on the earnings report page after the RECEIVER chooses a payoff option.

-----

Your group has now completed 3 rounds of the game. A different rule regarding the OBSERVER's punishment has been implemented.

**In the next three rounds, the OBSERVER's punishment decisions will become anonymous.** In addition, both the SENDER and the RECEIVER will not receive earnings information affected by punishment on the report page at the end of each round.

Group Game Instruction Screens – Example of One Round Where the Violator Was Programmed to Send a Truthful Message

**Round**

The payoff table for this round:

|                 | <b>Sender</b> | <b>Receiver</b> |
|-----------------|---------------|-----------------|
| <b>Option X</b> | 12            | 5               |
| <b>Option Y</b> | 5             | 12              |

The SENDER will select an action from below.

- ▶ Send Message A to RECEIVER: "Option X will earn you more points than option Y."
- ▶ Send Message B to RECEIVER: "Option Y will earn you more points than option X."
- ▶ Do not send a message to RECEIVER.

What would you do if you were the SENDER?

Send Message A

Send Message B

Do not send a message

-----

**Round**

The payoff table for this round:

|          | Sender | Receiver |
|----------|--------|----------|
| Option X | 12     | 5        |
| Option Y | 5      | 12       |

The SENDER chose the action below.

- ▶ Send Message B to RECEIVER: "Option Y will earn you more points than option X."

⇒ **The SENDER chose the truthful message. You cannot punish the SENDER.**

-----

**Round**

The payoff table for this round:

|          | Sender | Receiver |
|----------|--------|----------|
| Option X | 12     | 5        |
| Option Y | 5      | 12       |

⇒ **The RECEIVER did not follow the SENDER's truthful message and chose Option X instead.**

The following earnings report is shown to the OBSERVER only.

=====

The SENDER (Partner A) earns: 12 points this round, with points in total  
The RECEIVER (Partner B) earns: 5 points this round, with points in total  
**The OBSERVER (You) earns: 10 points this round, with points in total**

=====

Group Game Instruction Screens – Example of One Round Where the Violator Was Programmed to Send a Deceptive Message

**Round**

The payoff table for this round:

|                 | <b>Sender</b> | <b>Receiver</b> |
|-----------------|---------------|-----------------|
| <b>Option X</b> | 15            | 8               |
| <b>Option Y</b> | 8             | 15              |

The SENDER will select an action from below.

- ▶ Send Message A to RECEIVER: "Option X will earn you more points than option Y."
- ▶ Send Message B to RECEIVER: "Option Y will earn you more points than option X."
- ▶ Do not send a message to RECEIVER.

What would you do if you were the SENDER?

Send Message A

Send Message B

Do not send a message

-----



## Round

The payoff table for this round:

|          | Sender | Receiver |
|----------|--------|----------|
| Option X | 15     | 8        |
| Option Y | 8      | 15       |

The SENDER chose the action below.

► Send Message A to RECEIVER: "Option X will earn you more points than option Y."

⇒ **The SENDER chose the deceptive message. You may punish the SENDER below.**

The SENDER lied to the RECEIVER. How much would you like to invest your 10 points in punishing the SENDER? The amount removed from the SENDER's earning will be tripled to what you invest.

Type in a number from 0 to 10 in the box.

(Depending on the condition of retaliation risk, one of the messages was shown at the bottom of this page.)

Low Retaliation Risk:

**Your punishment decision will not be revealed to group.**

High Retaliation Risk:

**Your punishment decision will be revealed to group.**

-----

**Round**

The payoff table for this round:

|                 | Sender | Receiver |
|-----------------|--------|----------|
| <b>Option X</b> | 15     | 8        |
| <b>Option Y</b> | 8      | 15       |

⇒ **The RECEIVER followed the SENDER's deceptive message and chose Option X.**

(The following message was only shown in the condition of high retaliation risk.)

⇒ **The OBSERVER invested 4 points to remove 12 points from the SENDER's earning.**

The following earnings report is shown to the OBSERVER only.

=====

The SENDER (Partner A) earns: 3 points this round, with points in total

The RECEIVER (Partner B) earns: 8 points this round, with points in total

**The OBSERVER (You) earns: 6 points this round, with points in total**

=====

Group Game Instruction Screens – Example of One Round Where the Violator Was Programmed to not Send a Message

**Round**

The payoff table for this round:

|                 | <b>Sender</b> | <b>Receiver</b> |
|-----------------|---------------|-----------------|
| <b>Option X</b> | 16            | 6               |
| <b>Option Y</b> | 6             | 16              |

The SENDER will select an action from below.

- ▶ Send Message A to RECEIVER: "Option X will earn you more points than option Y."
- ▶ Send Message B to RECEIVER: "Option Y will earn you more points than option X."
- ▶ Do not send a message to RECEIVER.

What would you do if you were the SENDER?

Send Message A

Send Message B

Do not send a message

-----

**Round**

The payoff table for this round:

|          | Sender | Receiver |
|----------|--------|----------|
| Option X | 16     | 6        |
| Option Y | 6      | 16       |

The SENDER chose the action below.

▶ Do not send a message to RECEIVER.

⇒ **The SENDER did not send a message. You cannot punish the SENDER.**

-----

**Round**

The payoff table for this round:

|                 | Sender    | Receiver |
|-----------------|-----------|----------|
| <b>Option X</b> | <b>16</b> | <b>6</b> |
| Option Y        | 6         | 16       |

⇒ **The SENDER did not send a message and the RECEIVER chose Option X.**

The following earnings report is shown to the OBSERVER only.

=====

The SENDER (Partner A) earns: 16 points this round, with points in total

The RECEIVER (Partner B) earns: 6 points this round, with points in total

**The OBSERVER (You) earns: 10 points this round, with points in total**

=====

## Group Game Instruction Screens – Postgame Evaluation about Partners

Think about how **Partner A**, the **SENDER**, performed in the group game and then give your opinion on the following statements. *1 represents not at all and 8 represents very much.*

Partner A valued cooperation over competition.

|                    |   |   |   |   |   |   |                   |
|--------------------|---|---|---|---|---|---|-------------------|
| Not<br>at all<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Very<br>much<br>8 |
|--------------------|---|---|---|---|---|---|-------------------|

Partner A's behavior was problematic.

|                    |   |   |   |   |   |   |                   |
|--------------------|---|---|---|---|---|---|-------------------|
| Not<br>at all<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Very<br>much<br>8 |
|--------------------|---|---|---|---|---|---|-------------------|

Partner A acted fairly to others.

|                    |   |   |   |   |   |   |                   |
|--------------------|---|---|---|---|---|---|-------------------|
| Not<br>at all<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Very<br>much<br>8 |
|--------------------|---|---|---|---|---|---|-------------------|

Partner A's behavior was excusable.

|                    |   |   |   |   |   |   |                   |
|--------------------|---|---|---|---|---|---|-------------------|
| Not<br>at all<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Very<br>much<br>8 |
|--------------------|---|---|---|---|---|---|-------------------|

Partner A's behavior was moral.

|                    |   |   |   |   |   |   |                   |
|--------------------|---|---|---|---|---|---|-------------------|
| Not<br>at all<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Very<br>much<br>8 |
|--------------------|---|---|---|---|---|---|-------------------|

I would like Partner A as a classmate to work on a course project with.

|                    |   |   |   |   |   |   |                   |
|--------------------|---|---|---|---|---|---|-------------------|
| Not<br>at all<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Very<br>much<br>8 |
|--------------------|---|---|---|---|---|---|-------------------|

I would like Partner A as a friend.

|                    |   |   |   |   |   |   |                   |
|--------------------|---|---|---|---|---|---|-------------------|
| Not<br>at all<br>1 | 2 | 3 | 4 | 5 | 6 | 7 | Very<br>much<br>8 |
|--------------------|---|---|---|---|---|---|-------------------|

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