7-2021

Just because you're powerless doesn't mean they aren't out to get you: Low power, paranoia, and aggression

Michael Schaerer
Singapore Management University

Trevor Foulk
University of Maryland

Christilene du Plessis
Singapore Management University

Min Hsuan Tu
SUNY University at Buffalo

Satish Krishnan
Indian Institute of Management Kozhikode

JUST BECAUSE YOU'RE POWERLESS DOESN'T MEAN THEY AREN'T OUT TO GET YOU: LOW POWER, PARANOIA, AND AGGRESSION

ABSTRACT

Due to its pervasive negative consequences, failing to understand the origins of paranoia can be costly for organizations. Prior research suggests that *powerful* employees are particularly likely to experience paranoia as others want to exploit the resources they control, implying that employees *low in power* should feel less paranoid. In contrast, we build on Conservation of Resources Theory and sociocultural perspectives of power to argue that the inherent vulnerability associated with being low power *also* evokes paranoia as a protection mechanism. Because paranoia causes employees to form malevolent attributions towards others, we predict that paranoia, in turn, leads to aggressive tendencies. Five studies (N = 2,341), including three experiments, a correlational study, and an experience sampling study, support our predictions. We further find that the effect of low power on paranoia is weaker when employees can rely on other valuable resources, including individual (socioeconomic status) and social (organizational support) resources.

Keywords: social power, paranoia, aggression, socioeconomic status, organizational support

"I never liked the people where I was employed – they were always out to get me because I'm paranoid." --Todd Snider

In a world of pervasive uncertainty, scholars in psychology, sociology, and organizational behavior have long recognized the importance of paranoia in explaining human behavior. Paranoia is a psychological state of fear and threat that guides attention and attribution processes (Chan & McAllister, 2014), and can be directed at other individuals, groups, or institutions (Kramer, 2001). It is particularly relevant to organizations, because feelings of paranoia can have detrimental consequences for employees' interactions with their co-workers and, in turn, adversely affect organizational effectiveness. For example, paranoid employees tend to feel a constant sense of danger (Freeman & Garety, 2000), perceive themselves as the target of others' malevolence (Fenigstein & Vanable, 1992), spy on their co-workers (Marr, Thau, Aquino, & Barclay, 2012), and even avoid interacting with them entirely (Chan & McAllister, 2014; Marr et al., 2012). Paranoia can also have harmful consequences for employees' well-being, as paranoid thinking has been linked to irritability, anxiety, depression, and even mortality (Freeman, Pugh, Vorontsova, Antley, & Slater, 2010; Kawachi, Kennedy, Lochner, & Prothrow-Stith, 1997). Thus, failing to understand what causes paranoia, and how to prevent it, can be costly for organizations.

While past research has identified a variety of factors that can influence employees' state paranoia (Bernstein, 2012; Fenigstein & Vanable, 1992; Freeman et al., 2011; Kramer, 2001; Watson & Clark, 1984), scholars have recently suggested that situational factors in employees' work environment may be some of the most important sources of paranoia (Chan & McAllister, 2014; Freeman et al., 2010). One factor that can cause paranoia is social power, defined as asymmetric control over the resources and outcomes of others (Keltner, Gruenfeld & Anderson, 2003; Fiske, 2010; Magee & Galinsky, 2008; Tost, 2015). Several studies provide direct or indirect evidence for the idea that being powerful may cause people

to feel more paranoid. For example, Inesi, Gruenfeld, and Galinsky (2012) suggest that "the powerful are more prone to paranoia because they tend to form self-referential attributions for others' ambiguous behaviors" (p. 795) and other studies suggest that high-power individuals, relative to those with less power, tend to be more suspicious of others' motives (e.g., Mooijman, van Dijk, Ellemers, & van Dijk, 2015; Schilke, Reimann, & Cook, 2015; Zhao & Greer, 2017). These findings rely on the assumption that the powerful worry that others may exploit them to access their resources, causing them to question other people's intentions (Inesi et al., 2012) and view others' acts as threatening and disrespectful (Van Vugt, Hogan, & Kaiser, 2008; Foulk, Lanaj, Tu, Erez, & Archambeau, 2018). Thus, past research suggests that power is positively related to paranoia.

Building on the idea that paranoia acts as a defense mechanism to conserve the valuable resources of the powerful, past research implies that *low-power* individuals, who control relatively fewer valuable resources, should be *less* paranoid than their powerful counterparts. After all, low-power individuals have few resources to protect. However, we argue that this assumption may not align with the way individuals experience being low in power in organizational settings. For example, research suggests that low-power employees tend to be hypervigilant and obsessively attentive to even minor negative signals from their powerful counterparts (Kramer, 1998) which is an important manifestation of paranoia (Kramer, 2001). To illustrate this point, consider a low-power analyst's relationship with the vice-president she reports to. The simple failure by the vice-president to respond to a personal email can prompt intense and exaggerated rumination about the vice-president's potential negative impressions (e.g., "Does she dislike me?") or malevolent motives (e.g., "Is she punishing me?"). Although anecdotal, this example illustrates that being low in power can provoke cognitions that are reminiscent of paranoia. Further, none of the studies reviewed above specifically compared low power to a control condition, but rather focused on the

experience of high power and interchangeably used low power and control conditions as counterfactuals (Schaerer du Plessis, Yap, & Thau, 2018). Thus, past research is ill-equipped to explain how low power affects paranoia relative to a baseline state.

To address this issue, we build on Conservation of Resources Theory (COR; Hobfoll, 1988, 1989) and sociocultural perspectives on power (Kraus & Torrez, 2020) to suggest that because low-power individuals have historically been subjugated and objectified (Kraus & Torrez, 2020; Fiske, 2010; Sidanius et al., 2017), people have come to associate the experience of low power with being vulnerable in a way that motivates paranoia as a vigilant protection process (Hobfoll, 1988, 1989). Building on theories of organizational paranoia (Chan & McAllister, 2014; Kramer, 1998, 2001), we further propose that paranoia, in turn, can cause individuals to behave aggressively towards others both at work and at home. Finally, to provide a more nuanced account of this indirect effect of low power on aggression via paranoia, we also consider relevant boundary conditions. Building on the idea that low-power individuals are vulnerable due to their lack of resources and thus feel paranoid (Hobfoll, 1989) and that similar resources can substitute for each other (Foa & Foa, 2012; Hobfoll, 1989; 2011; Hobfoll et al., 1990), we explore one personal resource (socioeconomic status / SES) and one social resource (organizational support) that are functionally equipped to reduce the vulnerability of low-power employees and thus should make them feel less paranoid (and subsequently aggressive). Our theoretical model is summarized in Figure 1.

The present work makes several important contributions. First, our research builds on prior work suggesting that the powerful exhibit paranoia to protect their resources (e.g., Inesi et al., 2012; Mooijman et al., 2015) by showing that low-power individuals also experience paranoia – perhaps more so than the powerful. Second, we identify important boundary conditions of the effect of low power on paranoia, showing that power and status can act as substitutes in situations in which they achieve similar goals and that creating a supportive

organizational culture can mitigate employee paranoia. Third, the present research brings nuance to the assumption in prior power research that low-power individuals are more inhibited (e.g., Keltner et al., 2003) by creating a link between low power and aggression via paranoia. Finally, we extend organizational paranoia research by showing that paranoia not only leads to submissive or passive safety behaviors, but also negative behaviors towards colleagues, the organization, as well as targets that are not tied to the power experience.

THEORY AND HYPOTHESES

Although early mentions of paranoia were primarily associated with psychopathology (Fenigstein & Vanable, 1992), it has become a valuable construct in organizational behavior (Kramer, 1998, 2001; Chan & McAllister, 2014). Indeed, it is not uncommon for ordinary individuals to exhibit cognitions related to "self-centered thought, suspiciousness, assumptions of ill will or hostility […] that are reminiscent of paranoia" (Fenigstein & Vanable, 1992, p. 130). Following Chan and McAllister (2014), we conceptualize employee state paranoia as a situation-specific and aroused psychological state that is characterized by anxiety and a fear of threat that guides the paranoid perceiver's attention and attribution processes. In organizations, such threats may include potential harm, persecution, mistreatment, and disparagement, by malevolent colleagues and supervisors (Kramer, 2001). In line with this conceptualization, past research suggests that feelings of paranoia can fluctuate from one moment to the next (Thewissen, Bentall, Lecomte, Os, & Myin-Germeys, 2008) and can be evoked by contextual changes, such as increased stress (Lincoln, Peter, Schaefer, & Moritz, 2008), sensory deprivation (Zimbardo, Andersen, & Kabat, 1981), and competition (Ellett et al., 2013). Thus, feelings of paranoia are malleable, situationally dependent, and affected by intrapsychic, relational, and contextual variables.

We propose that being low in power may be an important situational predictor of state paranoia. In line with our earlier definition of power, we define low power as a state in which

an individual controls (or perceives to control) relatively few valued resources (Foulk et al., 2020; Schaerer et al., 2018a). Some scholars have drawn a distinction between social power (i.e., power over others) and personal power (i.e., freedom to determine one's actions; van Dijke & Poppe, 2006). As far as we are aware, scholars have not considered the low power correlates of either of these two forms of power. We argue that being low in social power would mean that others have the power to compel an actor to do what they want, whereas being low in personal power would mean a focal actor is unable to do what he/she wants to do. Our focus here is on low social power, rather than low personal power, because we are concerned with situations in which low-power individuals are worried about the actions of those who have more power than them and because power in organizations is inherently relational (Tost, 2015).[1]

Examining the effects of low power (vs. a baseline) on paranoia is worthwhile for several reasons. First, like state paranoia, power can fluctuate from one situation to the next (Anicich, Schaerer, Gale, & Foulk, 2021). Scholars have suggested that dynamic states (such as paranoia) are best predicted by dynamic antecedents (such as low power), as doing so increases the accuracy of such relationships (Ones & Viswesvaran, 1996) and can therefore provide more nuanced insights into the causes of paranoia at work. Second, a recent review of the power literature suggests that because social power research has predominantly focused on studying the powerful, we have a limited understanding of low-power individuals (Schaerer et al., 2018a). This is a critical shortcoming as employees experience both high and low power daily, with low power experiences being more common (Smith & Hofmann, 2016). Finally, research on organizational paranoia suggests that paranoia is influenced not only by an employee's environment, but also by their psychological state (Kramer, 2001;

[1] Social power is also distinct from social influence, which involves behaviors intended to achieve compliance with a request (Cialdini & Goldstein, 2004). Although influence can be a potential antecedent (Schaerer, Tost, Huang, Gino & Larrick, 2018) or consequence (Anderson & Brion, 2014; Tost, 2015) of power, "power should not be equated to the capacity to influence" (Magee & Galinsky, 2008, p. 363)

Chan & McAllister, 2014). Thus, focusing on low power as a situationally dependent experience is particularly relevant.

From Low Power to Organizational Paranoia

To explain whether and how low power is related to paranoia, our theoretical model builds on COR (Hobfoll, 1988, 1989; Hobfoll et al., 2018) which is a useful lens through which to examine the consequences of low power, because power is typically conceptualized within the context of resources - the less valued resources one perceives to be controlling, the less powerful one feels (Foulk et al., 2020; Magee & Galinsky, 2008). According to COR, because low-power individuals possess few resources, they are likely to experience a sense of vulnerability as those with low power are often treated poorly by others. This assumption is rooted in sociocultural perspectives on power, which suggest that social groups that typically have little power have been oppressed and subjugated by more powerful groups (Kraus & Torrez, 2020; Fiske, 2010; Sidanius et al., 2017), and with social psychological and economic research highlighting that the powerful often treat those with little power negatively (De Cremer, 2003; Kipnis, 1972). Furthermore, controlling few resources signals to low-power individuals that they are ill-equipped to protect themselves from these aversive behaviors (Hobfoll, 1989; ten Brummelhuis & Bakker, 2012; Wells, Hobfoll, & Lavin, 1999), which is likely to contribute to their sense of vulnerability. For example, low-power employees may feel vulnerable to exploitation, because if another employee tried to take credit for their work, they would have little means of standing up for themselves (Tost, 2015). Similarly, low-power employees likely feel vulnerable to mistreatment, as they may worry that their low-power position suggests that they can be victimized with impunity.

As a consequence, people's own vivid experiences of lacking power and their exposure to others' similar experiences is likely to produce a learned association between low power and vulnerability which is stored in memory and retrieved when relevant (Tost, 2015).

Learned associations related to vigilance processes tend to form quickly because they are designed to function as a self-protection mechanism (Pratto & John, 1991) and can occur even after a single negative experience (Kandel et al., 2000; LeDoux, 1998). In this way, the ongoing subjugation and coercion of low-power individuals causes people associate such negative experience with being low in power, such that the experience of low power can automatically trigger a sense of vulnerability.

According to COR, the inherent vulnerability that comes with being in a low-power state is likely to motivate vigilance processes (Hobfoll, 1988, 1989; Hobfoll et al., 2018). Specifically, we propose that low-power individuals develop paranoid cognitions that act as a defense mechanism. This is because individuals who experience threatening situations, such as having little power, tend to worry that they will be treated negatively and develop anxious expectations of potential dangers in their social environment (Belmi, Barragan, Neale, & Cohen, 2015; Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002). In this way, we argue that paranoia should be elevated among low-power employees because they become selectively focused on threat-related information and vigilant to cues that signal how they will be treated by others (Chan & McAllister, 2014; Emerson & Murphy, 2014).

This idea is supported by research suggesting that low-power individuals are careful and vigilant information processors and, in turn, particularly attuned to negative information in their social environment, such as punishments and threats (Keltner et al., 2003; Fiske & Depret, 1996). It is further consistent with qualitative interviews that found that graduate students, who have few resources and are thus particularly vulnerable, felt that they were under more evaluative scrutiny by their supervisors than they really were (Kramer, 2001). In sum, our theorizing suggests that the vulnerability associated with having little power creates a sense of paranoia whose function is to protect the individual. Therefore, we hypothesize:

Hypothesis 1: Being low in power (vs. baseline) increases feelings of paranoia.

Aggression as a Consequence of Paranoia

Building on perspectives indicating that paranoia can have far-reaching behavioral implications (e.g., Freeman et al., 2005), and the proposition that paranoia may result in aggression in organizational settings (Chan & McAllister, 2014), we also explore the downstream consequences of employees' paranoia on aggressive behavior. Investigating how paranoia can create a link between low power and aggression is important, as power research suggests that lacking power is primarily associated with inhibition and inaction (Galinsky, Gruenfeld, & Magee, 2003; Keltner et al., 2003). Our model extends this perspective by suggesting that low power is associated with paranoia, and that one consequence of paranoia can be aggression towards others. We define aggression as behaviors that have the intention of harming others physically, psychologically, or economically (Morris & Maisto, 1999). Aggression includes severe behaviors such as abuse, harassment, and violence, but also less severe behaviors such as incivility and undermining (Bowling & Beehr, 2006; Hershcovis & Barling, 2010). Our research focuses on milder forms of aggression as these tend to be more common in organizations (Schilpzand, de Pater, & Erez, 2016).

To develop the link between paranoia and aggression, we rely on organizational paranoia theory (Chan & McAllister, 2014; Kramer, 1998, 2001) which suggest that paranoia acts as a lens through which employees view and interpret the social environment and can cause employees to overestimate others' malevolent intentions. This phenomenon is also known as sinister attribution bias, which refers to paranoid thinkers' tendency to make overly pessimistic and personalistic attributions of others' actions even when plausible explanations for those actions are available (Kramer, 2001). In this way, paranoid employees become more likely to perceive violations in their interactions with co-workers. For example, the simple failure of a colleague to say "hello" when passing in the hallway is normally dismissed, but paranoia may cause an employee to feel slighted or offended. While this suggests that the

presence of cues or triggers for the paranoid employee to interpret malevolently are necessary, even the complete lack of social cues can signal that something is amiss (Kramer, 2001). The absence of interactions with others may make paranoid employees feel that others are conspiring against them, talking behind their back, or silently exploiting them. To this point, Zimbardo et al. (1981) found that the paranoia induced by temporary hearing loss led individuals to perceive that others around them were whispering about them, which in turn created a chain reaction of mutual suspicion and escalating hostility (Kramer, 1998). Thus, paranoid employees tend to perceive more provocations or violations from their co-workers, regardless of whether they are actively interacting with them.

According to Neuman and Baron (1998), when individuals interpret someone else's behavior as hostile, they may retaliate because they feel wronged. Indeed, while multiple perspectives indicate that the single most important cause of aggression is interpersonal provocation (Anderson & Bushman, 2002; Berkowitz, 1993), these perspectives also highlight that what is most important in predicting aggression are the *perceptions* of the perceiver, rather than the actual behavior of the actor (Bies & Tripp, 2005; Dodge & Newman, 1981; Mark & Folger, 1984). Thus, actors will engage in retaliation when they perceive a violation, even in the absence of an actual violation (Dodge & Coie, 1987; Dodge & Newman, 1981). This tendency to attribute hostility to the actions of others can result in aggression even when intent is lacking because paranoid employees are often mistaken in the way they make attributions about the intentions of others (Neuman & Baron, 1998). This may be particularly likely in workplace settings, in which employees work together closely and pay close attention to each other's behaviors (Baron & Neuman, 1996).

In sum, building on research that paranoia causes hostile or malevolent attributions of others' behavior (even in the absence of any interaction), and evidence that perceptions of malevolent intentions are the most consistent and robust catalysts for aggressive behavior, we

argue that low power-induced paranoia is likely to increase interpersonal aggression in the workplace. Specifically, we argue that low-power induced paranoia can cause employees to interpret benign interactions as aversive, and even perceive non-interactions as offensive, causing them to retaliate to these perceived offenses. We therefore hypothesize that:

Hypothesis 2: Paranoia is (a) positively associated with aggression and (b) mediates the relationship of low power on aggression.

The Moderating Role of Substitute Resources

Building on the assumption that low-power individuals tend to feel paranoid because they are inherently disadvantaged and vulnerable (Hobfoll, 1989; Kraus & Torrez, 2020; Fiske, 2010; Sidanius et al., 2017), we argue that alternative resources that make employees less vulnerable should weaken the effect of low power on paranoia and, thereby, the indirect effect of low power on aggression. An important component of COR is that having access to a resource with similar functional value can mitigate the effects of lacking another resource (Foa & Foa, 2012; Hobfoll, 1989; 2011), and numerous studies have found support for this proposition (Hochwarter et al., 2006; Ross & Mirowsky, 2006; Shantz, Alfes, & Latham, 2016). Importantly, several frameworks that consider resources within the context of COR indicate that individuals may rely on both personal and social resources in response to stressful situations resulting from resource shortages (Callan, Terry, & Schweitzer, 1994; Hobfoll et al., 2003; Somech & Drach-Zahavy, 2012). To integrate our theoretical model with COR and the various resources that low-power employees may utilize to reduce their vulnerability, we consider both a personal resource (SES) and a social resource (organizational support) as moderators of the relationship between low power and paranoia.

SES as a personal resource substitute. Personal resources are typically conceptualized as aspects of the individual or things that the individual possesses (Callan et al., 1994; Hobfoll et al., 2003; Somech & Drach-Zahavy, 2012). One such resource that

should help assuage the vulnerability that causes low-power employees to feel paranoid is SES. SES is often conceptualized as one's advantage within society (Angell, 1993; Côté, 2011; Matthews & Gallo, 2011) and is therefore functionally well aligned to combat feelings of vulnerability that come with low power. Indeed, while lower-SES contexts are often characterized by vulnerability and external threats (Kraus et al., 2012), high SES is associated with a positive view of the future, signalling to people that they are likely to accomplish their goals and obtain successful outcomes (Côté, 2011). Therefore, we argue that high- (vs. low-) SES individuals should be better able to cope with the feelings of vulnerability that arise from low power. In this way, we argue that SES should weaken the effect of low power on paranoia. In support, SES has been negatively associated with cynicism, distrust, and perceived threats (Gallo & Matthews, 2003; Kraus et al., 2012), all of which should be positively associated with paranoia. Additionally, high-SES individuals have been shown to experience reduced paranoia (Freeman et al., 2011), providing further evidence that SES is a functionally similar resource that employees can rely upon when they feel low in power. In sum, we propose that SES functions as an alternative *personal* resource that can mitigate the experience of paranoia for low-power employees:

> *Hypothesis 3: SES will moderate (a) the effect of low power on paranoia and (b) the indirect effect of low power on aggression via paranoia, such that these affects are weaker when SES is higher (vs. lower).*

Perceived organizational support (POS) as a social resource substitute. Social resources are typically conceptualized as things individuals do not possess, but rather things that they get from the social environment (Callan et al., 1994; Hobfoll et al., 2003; Somech & Drach-Zahavy, 2012), with organizational support being one of the most common social resources within the context of COR (Hobfoll, 2011; Hobfoll et al., 2018). Perceived organizational support (POS) is defined as individuals' general belief that their organization

and their superior(s) value their contributions and well-being (Hochwarter et al., 2006; Rhoades & Eisenberger, 2002). POS is subjective and situation specific as it is based both on the individual work history of an employee and the particular circumstances at hand (Hochwarter et al., 2006; Rhoades & Eisenberger, 2002; Wayne, Shore, & Liden, 1997). Aligned with our arguments that the experience of low power creates a sense of vulnerability that results in paranoia, we argue that perceived organizational support is a resource that can help make employees feel less vulnerable in the work environment. Indeed, organizational support is related to better emotional outcomes in the face of stress (Cohen & Willis, 1985; Sarason et al., 1987; Stephens & Long, 2000; Schat & Kelloway, 2003; Vaux, 1988), suggesting it may be a key resource employees can rely on when they feel vulnerable.

While low power causes paranoia because employees worry that they are vulnerable to others' malevolent acts, organizational support suggests to those employees that they have others in the organization whom they can rely on in the face of potential threats (Wee, Liao, Liu, & Liu, 2017). Supporting this point, Freeman and colleagues (2011) suggested that "people who reported less access to social support were clearly more paranoid" (pp. 931-932) because without perceived organizational support, people tend to focus primarily on the negative aspects of the environment (Freeman et al., 2011). In sum, we argue that POS represents a critical *social* resource that employees may rely on when they feel low in power to reduce their paranoia and subsequent aggression:

> *Hypothesis 4: POS will moderate (a) the effect of low power on paranoia and (b) the indirect effect of low power on aggression via paranoia, such that these affects are weaker when POS is higher (vs. lower).*

STUDY OVERVIEW

We tested our integrative model across five studies. Study 1 was a pre-registered experiment that tested the effects of low power on paranoia and compared the relative effects

of low and high power to a baseline condition. Study 2 was a pre-registered experiment that conceptually replicated the effects of low and high power (vs. baseline) on paranoia using a different power manipulation and measured aggression using an economic decision-making task. The remaining three studies focused on demonstrating the generalizability of the effects of low power (vs. baseline) and testing the proposed moderators. Study 3a was a pre-registered correlational study which tested the moderating effect of SES on the relationship between low power and paranoia at work. This effect was replicated in Study 3b, an experience sampling-based field experiment, that tested the effects of low power (vs. baseline) on working professionals' paranoia as well as their aggressive behavior at work and at home throughout the day over a period of ten workdays. Study 4 was an experiment that tested whether POS would attenuate the negative consequences of low power (vs. baseline). Study 4 also extended Studies 2 and 3b – which focused on interpersonal aggression – by testing whether employees would also show aggression towards the organization. Study materials, syntax, and data are available on Open Science Framework.[2]

STUDY 1

The purpose of Study 1 was to establish the effect of low power on paranoia. We compared low power to a baseline condition to test the directionality of the effect and to a high-power condition to assess the relative strength of the two power conditions. Sample size, study design, and analyses were pre-registered.[3]

Participants

Participants were 300 individuals recruited from across the United States via Mechanical Turk in exchange for $1.00. Participants' average age was 36.96 years (*SD* = 10.66) and 43.3% were female. The required sample size was calculated based on the

[2] Link to Open Science Framework: https://osf.io/xy2jh/?view_only=86a36b52529644ad84f949c06fa68ef1
[3] The preregistration can be accessed here: https://aspredicted.org/bv9qj.pdf

assumption of a moderate effect size (d = .50) and statistical power of 80%. The resulting sample size per condition was 64. To be conservative, we collected 100 participants per condition. Based on the recommendations by Chmielewski and Kucker (2019) to ensure high data quality on Mechanical Turk, participants had to have successfully completed at least 500 HITs, have a study approval rating of 97% or higher, and pass an attention check (requiring participants to read a paragraph and select the last option). Two participants failed the pre-registered attention check and were excluded, leaving a final sample of 298 participants. Participants were randomly assigned to a low-power, control, or high-power condition.

Procedure

Participants were told that they would participate in a group interaction task together with two other participants. To manipulate power, we varied participants' hierarchical position relative to the other two (fictitious) team members (for similar manipulations, see Anderson & Berdahl, 2002; Foulk et al., 2020). Specifically, in the *low-power condition*, participants were told that they were a subordinate while their team members were their supervisors. They were further told that they had little power in their group, while the other participants had a lot of power over them. They were also shown a visual depiction of the team structure that further emphasized their low power position. In the *control condition*, participants were told that they and the other participants were peers and that all of them had the same amount of power. They were also shown a visual depiction of the team structure. In the *high-power condition*, participants were told that they were the supervisor and that the other participants were their subordinates. They were further told that they had a lot of power over the other participants, while the other participants had little power over them. Again, they were shown an image depicting the team structure. Next, participants completed a measure of paranoia, reported their demographics, and were debriefed.

Measures

***Paranoia*.** To measure paranoia, we adopted eight items (α = .91) from a paranoia scale developed by Fenigstein and Vanable (1992). The scale captured to what extent focal participants were paranoid about the other participants' motives and behaviors (e.g., "I feel like the other two participants have it in for me," "If the other two participants are nice to me, they must have hidden reasons;" see Appendix A for full scale). The scale ranged from 1 (*strongly disagree*) to 7 (*strongly agree*).

Manipulation check. To assess the effectiveness of the power manipulation, we used a 4-item perceived power scale (α = .95) developed by Schaerer, Swaab, and Galinsky (2015). Specifically, participants were asked to indicate the extent to which they felt powerful (1 = *powerless*, 7 = *powerful*), in control (1 = *no control*, 7 = *in control*), strong (1 = *weak*, 7 = *strong*), and confident (1 = *unconfident*, 7 = *confident*).

Results

The power manipulation was effective (see Figure 2). Participants in the low-power condition reported feeling less powerful (M = 2.59, SD = 1.33) than those in the high-power condition (M = 5.58, SD = 1.36), $t(295) = 16.94$, $p < .001$, and those in the control condition (M = 4.19, SD = .99), $t(295) = 9.16$, $p < .001$. High-power participants felt more powerful than baseline participants, $t(295) = 7.95$, $p < .001$.

The results supported Hypothesis 1 (see Figure 2). Low-power participants experienced significantly more paranoia (M = 4.18, SD = 1.19) than control participants (M = 3.02, SD = 1.27), $t(295) = 6.62$, $p < .001$, $d = .94$. We also replicated past research as those in the high-power condition reported more paranoia (M = 3.54, SD = 1.25) than those in the control condition, $t(295) = 2.97$, $p = .003$, $d = .42$. Paranoia was also significantly higher in the low-power condition than the high-power condition $t(295) = 3.62$, $p < .001$, $d = .51$.

Discussion

Study 1 provides initial support for our prediction that being low in power causes

people to experience heightened paranoia. In addition, we replicate past research by showing that powerfulness also increases paranoia but extend these findings by showing that low-power individuals may in fact experience more paranoia than high-power individuals.

STUDY 2

Study 2 extends Study 1 in two ways. First, we replicate the effects of low and high power on paranoia using a different power manipulation. Second, Study 1 did not measure aggression. Thus, in Study 2 we employed a behavioral measure of aggression. Specifically, we used a money-burning paradigm, which is an established economic decision-making task to capture hostility and aggression towards others (De Dreu & Van Lange, 1995; Foulk et al., 2016; Zizzo, 2003). Sample size, study design, and analyses were pre-registered.[4]

Participants

We recruited 600 full-time employees from across the United States via Prolific Academic in exchange for GBP1.00. Participants' average age was 35.47 years (*SD* = 9.29) and 37.8% were female. Sample size was determined based on the smallest paired contrast effect size achieved in a pre-test (*d* = .31). The estimated effect size to achieve 80% power was 165 per condition. To be conservative, we decided to collect 200 participants per condition, resulting in a total of 600 participants. To qualify, participants had to be from the United States, be a native English speaker, and have a study approval rating of ≥ 97%. Because the availability of relevant memories and relationships can enhance the effectiveness of recall manipulations (Lammers, Dubois, Rucker, & Galinsky, 2017), participants had to be employed full-time and have at least one subordinate and one supervisor at their current job. Only individuals who complied with these criteria could participate. At the end of the study, participants also completed a pre-registered attention check (reading a lengthy paragraph and selecting the last option). Twenty participants failed the pre-registered attention check and

[4] The preregistration can be accessed here: https://aspredicted.org/8yu5v.pdf

were excluded, leaving a final sample of 580 participants. As in Study 1, participants were randomly assigned to a low-power, control, or high-power condition.

Procedure

To manipulate power, we used an established hierarchical role manipulation adopted from past power research (e.g., Gruenfeld et al., 2008; Inesi et al., 2012; Schaerer et al., 2018a). The manipulation involved a writing task asking participants to think and write about a specific work relationship they currently have or have had in the past. In the *low-power condition,* participants described a professional relationship in which they reported directly to someone else or in which someone else had power over them. In the *control condition,* participants described a professional relationship with a coworker in which they did not report directly to one another and neither of them had power over the other. In the *high-power condition,* participants described a professional relationship in which someone reported directly to them or in which they had power over someone. Next, participants completed our dependent measures, a demographic questionnaire, and were debriefed.

Measures

***Paranoia*.** We used the same paranoia scale ($\alpha = .94$) as in Study 1 but adapted it to the current context. The scale captured to what extent focal participants were paranoid about motives and behaviors of the person they wrote about (e.g., "I feel like s/he has it in for me").

Interpersonal aggression. To measure interpersonal aggression, we adapted the money burning procedure developed by De Dreu and Van Lange (1995). This procedure has been used by economists (e.g., Zizzo, 2003) and organizational scholars (e.g., Foulk et al, 2016) to measure behavioral aggression towards others. The task asked participants to imagine that they were going to participate in a lottery with the person they wrote about during the power manipulation and that it was up to them to decide how the money would be allocated between themselves and the other person if they won. Participants were given a

series of 10 games to decide how to distribute a monetary amount between themselves and the other person and they were told that the allocation would be based on one of the 10 games which would be chosen randomly. In each game, participants had three options: a *prosocial* choice in which the monetary amount would be divided equally between them (e.g., $20) and the other person (e.g., $20), an *individualistic* choice in which the monetary amount for the self (e.g., $30) was larger than for the other person (e.g., $10), and an *aggressive* choice in which they could reduce the overall amount to be distributed to penalize the other person (e.g., self: $30; other: $9). Thus, selecting the third option was aggressive in that the participant would "burn" money to prevent the other person from getting it. Following Foulk et al. (2016), we coded interpersonal aggression as the number of times the participant selected the aggressive option across the 10 games ($\alpha = .97$).

Manipulation check. To assess the effectiveness of the power manipulation, we used the same 4-item perceived power scale as in Study 1 ($\alpha = .91$).

Results

The power manipulation was effective (see Figure 3, top panel). Participants in the low-power condition reported feeling significantly less powerful ($M = 4.56$, $SD = 1.26$) than those in the high-power condition ($M = 5.13$, $SD = 1.24$), $t(577) = 4.68$, $p < .001$, and marginally less powerful than those in the control condition ($M = 4.78$, $SD = 1.08$), $t(577) = 1.78$, $p = .076$. Additionally, participants in the high-power condition felt significantly more powerful than those in the control condition, $t(577) = 2.94$, $p = .003$.

Replicating Study 1, participants in the low-power condition reported significantly higher levels of paranoia ($M = 2.50$, $SD = 1.45$) than those in the control condition ($M = 1.88$, $SD = .94$), $t(577) = 4.90$, $p < .001$, $d = .50$, providing additional support for Hypothesis 1. Also as in Study 1, participants in the high-power condition ($M = 2.39$, $SD = 1.31$) exhibited higher levels of paranoia than those in the control condition, $t(577) = 4.01$, $p < .001$, $d = .41$.

This time, however, the difference in paranoia between low- and high-power participants was not significant, $t(577) = .85$, $p = .40$, $d = .09$ (see Figure 3, top panel).

Hypothesis 2a stated that paranoia would be positively associated with aggression. A linear regression revealed a positive effect of paranoia on money burning ($\beta = .38$, $p < .001$), supporting Hypothesis 2a. Hypothesis 2b stated that the effect of low power on aggression would be mediated by paranoia. Given the multicategorical nature of the independent variable, we used the indicator coding procedure recommended by Hayes and Preacher (2013) to compare the indirect effect of low power on money burning via paranoia. Specifically, we compared the low-power condition to the control condition by using an indicator variable for low power as the predictor (1 = low power, 0 = all other conditions) while controlling for a second indicator variable for high power (1 = high power, 0 = all other conditions). As predicted, the indirect effect of low power on money burning via paranoia was significant as the confidence interval did not contain zero, .32, *SE* = .10, 95% CI [.15; .53], providing support for Hypothesis 2b (see Figure 4). We also found a significant indirect effect of high power on aggression via paranoia, .27, *SE* = .09, 95% CI [.12; .45].

Although not hypothesized, we also tested whether low power would lead to more aggressive behavior relative to the baseline. The results are summarized in Figure 3 (bottom panel). Low-power participants were significantly more likely to select the aggressive option ($M = .57$, $SD = 2.02$) than those in the control condition ($M = .13$, $SD = .75$), $t(577) = 2.50$, $p = .013$, $d = .25$. Participants in the high-power condition ($M = .68$, $SD = 2.20$) were also more likely to select the aggressive option than those in the control condition, $t(577) = 3.05$, $p = .002$, $d = .31$. The two power conditions did not differ, $t(577) = .57$, $p = .57$, $d = .06$).[5]

[5] Although we followed Foulk et al. (2016) in treating money burning as a continuous dependent variable (pre-registered), we also tested the robustness of the effect using negative binomial regression (not pre-registered). In line with our main analyses, individuals in the low-power condition were more likely to select the aggressive option than those in the control condition, $\beta = 1.51$, $SE = .24$, $\chi^2(1) = 38.56$, $p < .001$). Similarly, individuals in the high-power condition were more likely to select the aggressive option than control participants, $\beta = 1.68$, $SE = .24$, $\chi^2(1) = 48.29$, $p < .001$).

Discussion

In sum, Study 2 replicates the effect of low power on paranoia using a different power manipulation and establishes the subsequent downstream consequences of paranoia on aggression using money burning as a behavioral measure of aggression. In contrast to Study 1, low power did not lead to more paranoia than high power. As a more systematic test of the difference between the two power conditions, we conducted an internal meta-analysis of Studies 1-2 as well as four additional studies not included in the manuscript.[6] Across the six studies, low power led to significantly more paranoia than high power, $k = 6$, $d = .19$, $SE = .05$, 95% CI [.10; 29], $Z = 3.98$, $p < .001$.

Having replicated the effects of low and high power on paranoia in two studies, the remaining studies focused on demonstrating the generalizability of the effects of low power (vs. baseline) and establishing relevant boundary conditions. Specifically, Study 3a replicates the effect of low power on paranoia and tests whether SES serves as a buffer of the effect. Study 3b then tests our full theoretical model as well as the SES moderation in the field using an experimental experience sampling approach. Finally, Study 4 replicates the effect of low power on paranoia using a high-powered online sample and tests a contextual moderator (organizational support) that simultaneously serves as an organizational intervention.

STUDY 3A

The purpose of Study 3a was twofold. First, we replicate the effect of low power on paranoia in a pre-registered[7] study using a different sample and by measuring (instead of manipulating) the experience of low power. Second, we test our prediction that SES acts as a personal resource that moderates the effect of low power on paranoia such that the effect becomes weaker as SES increases. This is done using two different, established measures of

[6] The four studies included a pre-test ($N = 298$) as well as three studies that were replaced during the revision process ($N = 300$,$N = 600$, and $N = 600$). There were no other exploratory or confirmatory studies that included a high power condition.
[7] The preregistration can be accessed here: https://aspredicted.org/6ag3h.pdf

SES (Adler, Epel, Castellazzo, & Ickovics, 2000; Griskevicius, Delton, Robertson, & Tybur, 2011).

Participants

Participants were 217 undergraduate students from a Singaporean university who participated in the study in exchange for course credit and a chance to win one of five $100 bonuses. The average age of participants was 22.98 years (*SD* = 1.74) and 67.3% were female. The study used a convenience sample and the pre-registered sample size of 200 was based on the anticipated number of students who needed to participate in the research study for course credit. Seventeen participants (7.8%) failed the pre-registered attention checks (two separate Likert scale items requiring participants to either select "strongly agree" or "strongly disagree") and were excluded, resulting in a final sample of 200 participants.

Procedure

Participants were invited to participate in a study in which they answered questions about their situation at work. Since participation involved answering questions about work-related behaviors, students had to have relevant work experience (e.g., an internship, part- or full-time job) within the last 6 months which included reporting to a direct supervisor. Only students who met these criteria could participate in the study. After passing the screening questions, participants completed the measures for low power, paranoia, and reported their demographics. Embedded within the demographics were two measures of SES – the MacArthur scale of subjective social status (Adler et al., 2000) and the 3-item current SES scale (Griskevicius et al, 2011) – the order of which was randomized.

Measures

Sense of Low Power. To measure participants' experience of low power in their role at work, we adapted the 8-item ($\alpha = .94$) Sense of Power scale developed by Anderson, John, and Keltner (2012) by reverse-coding the items so that they would reflect participant's sense

of low power. Example items included "I do not have a great deal of power", "I would not easily get my way", and "I cannot get others to do what I want" (1 = *strongly disagree;* 7 = *strongly agree*). See Appendix B for the full scale.[8]

***Paranoia*.** Participants completed the same 8-item (α = .90) paranoia scale as in Studies 1 and 2 (e.g., "I feel like my co-workers have it in for me").

SES. Participants completed two measures of SES. The first (SES 1) was the MacArthur scale of subjective social status (Adler et al., 2000). Here, participants were shown a drawing of a ladder that was described as follows: "Think of the ladder below as representing where people stand in Singapore. At the top of the ladder are the people who are the best off, those who have the most money, most education, and the best jobs. At the bottom of the ladder are the people who are the worst off, those who have the least money, least education, and worst or no job." Participants where then asked to select the rung on the ladder (1 = *lowest rung,* 10 = *highest rung*) which they currently occupy. The second measure (SES 2) was the 3-item (α = .81) SES scale developed by Griskevicius et al. (2011; "I have enough money to buy things I want," "I don't have to worry too much about paying my bills," "I feel relatively wealthy compared to others").

Results

Descriptive statistics and bi-variate correlations can be found in Table 1, and regression results can be found in Table 2. We predicted that low power would be positively associated with paranoia (Hypothesis 1), and that SES would moderate the effect of low power on paranoia (Hypothesis 3a).

As shown in Table 2 (Model 1), the association between low power and paranoia was positive and significant, $\beta = .45$, $SE = .05$, $t(198) = 8.62$, $p < .001$. The effect of low power on

[8] Mooijman et al. (2015) used a different operationalization of a low power scale by using only four of the eight items of the original Sense of Power scale. We replicate all our effects when we used the same four-item low power scale as Mooijman and colleagues (*p*s < .001).

paranoia remained positive and significant when we controlled for age and gender (see Model 2 in Table 2), β = .48, *SE* = .05, t(196) = 8.94, $p < .001$. Thus, Hypothesis 1 was supported.

To test Hypothesis 3a, we followed the procedure outlined by Hayes (2013) and used PROCESS Model 1. We first report the results of the model in which SES is measured using the MacArthur scale of subjective social status (SES 1; see Model 3 in Table 2). There were significant main effects of sense of low power, β = 1.23, *SE* = .16, *t*(196) = 7.54, $p < .001$, and SES, β = .31, *SE* = .10, *t*(196) = 3.04, $p < .01$, on paranoia. Importantly, the interaction term was statistically significant, indicating that the effect of low power on paranoia changes at different levels of SES, β = -.12, *SE* = .02, *t*(196) = -4.97, $p < .001$. We conducted a spotlight analysis to decompose the interaction term and examine the effect of low power on paranoia at different levels of SES. The top panel of Figure 5 shows the relationship between low power and paranoia at low (-1*SD*), average, and high (+1*SD*) SES. As predicted, the effect of low power on paranoia was stronger at low SES, β = .69, *SE* = .07, *t*(196) = 10.23, $p < .001$, than at average SES, β = .51, *SE* = .05, *t*(196) = 10.31, $p < .001$, and weakest at high SES, β = .33, *SE* = .05, *t*(196) = 6.01, $p < .001$. These results hold when age and gender (1 = female, 0 = male) are included as covariates in the model (see Model 4 in Table 2).

These results replicated when using the second SES scale (SES 2; Griskevicius et al., 2011) instead (see Model 5 in Table 2). The main effects of low power, β = 1.30, *SE* = .17, *t*(196) = 7.87, $p < .001$, and SES, β = .54, *SE* = .13, *t*(196) = 4.16, $p < .001$, on paranoia were significant. Their interaction was also significant, β = -.18, *SE* = .03, *t*(196) = -5.35, $p < .001$. The bottom panel of Figure 5 shows the effect of low power on paranoia at low (-1*SD*), average, and high (+1*SD*) SES. In line with our prediction, the effect of low power on paranoia was stronger at low SES, β = .73, *SE* = .07, *t*(196) = 10.28, $p < .001$, than at average SES, β = .51, *SE* = .05, *t*(196) = 10.18, $p < .001$, and weakest at high SES, β = .28, *SE* = .06, *t*(196) = 4.75, $p < .001$. These results hold when age and gender (1 = female, 0 = male) are

included as covariates (see Model 6 in Table 2).

Discussion

Study 3a replicates the effect of low power on paranoia in a different sample and by *measuring* feelings of low power. Paranoia increased as people felt lower in power at work. Importantly, this effect was moderated by SES. Using two different, established measures of SES, the effect of low power on paranoia was shown to become weaker as SES increased.

STUDY 3B

In Study 3b, we tested our full model in a field experiment in which we manipulated employees' experienced low power at work where they interacted with their actual co-workers. We manipulated low power (vs. control) in the morning using a recall task as past research has found morning primes can affect perceptions and behavior throughout the day (e.g., Foulk et al. 2018, 2020; Song, Liu, Wang, Lanaj & Shi, 2018; Woolum, Foulk, Lanaj, & Erez, 2017). Our expectation was that being put in a low-power mindset in the morning (vs. not) would elevate individuals' day-level paranoia at work, which, in turn, would influence those individuals' subsequent social interactions and behaviors. Examining the effects of low power in the field is particularly important because scholars have suggested that the effects of power may manifest differently in field settings compared to lab settings (Foulk et al., 2018; Schaerer et al., 2018b; Tost, 2015). Additionally, Study 3b extends Study 3a by exploring the effects of paranoia on aggression both at work and at home, responding to recent calls to explore whether work-induced paranoia may spill over and influence behaviors in other domains (Chan & McAllister, 2014).

Participants

Participants were enrolled in a part-time executive program at a business school in India. They were offered extra course credit and were entered into a lottery for a cash prize. Participants worked in a variety of industries including IT, healthcare, engineering, and

finance. Thus, this study was based on a convenience sample and sample size was determined by the number of students enrolled in the executive program (see also Foulk, Lanaj, & Krishnam, 2019; Rosen et al., 2016, 2019; Tepper et al., 2018). Consistent with similar studies (Foulk et al., 2020), we instructed participants that they needed to complete at least eight (out of 10) days of the daily portion of the study to be included in the sample. Most participants were male (90.09%), were an average of 34.58 years old (*SD* = 6.13), had work experience of 11.04 years (*SD* = 6.08), and worked 43.17 hours per week (*SD* = 15.70).

Procedure

We collected data over a period of three consecutive work weeks. During the first week, participants completed a one-time background study, which included a measure of SES and demographic information. The daily portion of the study was conducted in the second and third weeks. During the daily period of the study, we emailed participants three surveys each day for 10 consecutive workdays (Monday-Friday). The morning survey was sent at 6 a.m., and measured pre-manipulation mood, followed by our manipulation of low power (described below), after which we measured paranoia and social closeness. The afternoon survey was sent at 4 p.m. and included a measure of counterproductive work behaviors (CWBs). The evening survey was sent at 8 p.m. and included a measure of angry domestic behaviors. The average start time was 9:23 a.m. for the morning survey; 6:02 p.m. for the afternoon survey; and 9:01 p.m. for the evening survey. To ensure participants' full engagement in the manipulation exercise, we removed daily observations where participants wrote less than eight words, as prior research reported that the average number of words written about a daily event is about eight (Fuller, Stanton, Fisher, Spitzmüller, Russell, & Smith, 2003). In addition, we excluded daily observations where participants reported not going to work that day. From the 66 participants, we received a sample of 464 usable daily observations (out of 660 possible responses), for a daily response rate of 70.3%.

Low Power Manipulation

We manipulated low power using an adapted version of the procedure described by Foulk et al. (2020) for manipulating power experiences in ESM studies. On each day of the study, participants were assigned into either a control condition or a low-power condition. To ensure that the control and low-power conditions were equally distributed both within and between participants, following Foulk and colleagues' (2018; 2020) approach, we used a constrained random matrix to assign the participants to conditions on a daily basis. This procedure ensured that each participant was assigned to the control condition for five days of the study and to the low-power condition for five days of the study, and that the order in which participants were being assigned to conditions daily differed between participants.

In both conditions, participants were asked to reflect upon and write about a past personal experience. In the *low-power condition*, we asked participants to think and write about an experience where someone else had power over them (e.g., Galinsky et al., 2003). In the *control condition*, we asked participants to think and write about a neutral experience. To prevent participants from writing about the same experience on different days, we created multiple versions of both the low-power and control manipulations (see Appendix C).[9]

To ensure our manipulation of low power had the intended effect, we followed the procedure described by Foulk et al. (2018), which was adapted from the manipulation check described by Galinsky et al. (2003) for assessing the efficacy of recall-based manipulations of power. Specifically, three trained research assistants who were blind to the study purpose and study conditions were asked to read participants' daily responses and then respond to the

[9] To ensure that the five versions of each condition did not influence the participants differently, we conducted a one-away ANOVA with the version (1-5) as the factor and daily paranoia as the dependent variable. Considering the multilevel nature of our data, we first group mean centered daily paranoia (Hofmann, Griffin, & Gavin, 2000) and then conducted the analyses. The results showed that, in the control condition, the effect of the five versions on daily paranoia did not differ from each other ($F(4, 248) = 1.08$, $p = .367$). Similarly, the five versions of the low-power condition did not influence daily paranoia differently ($F(4, 206) = 2.16$, $p = .074$).

question "How powerless does this person describe being?" on a scale ranging from 1 = *not at all powerless* to 5 = *extremely powerless*. There was a high degree of agreement between coders (ICC[1] = .84, ICC[2] = .94), therefore the ratings were aggregated to form a single rating of low power for each response. Supporting the effectiveness of the manipulation, participants in the low-power condition (M = 2.96, SD = .96) described being more powerless than control participants (M = 1.14, SD = .31), $F(1, 462) = 801.50$, $p < .001$.

Measures

Unless otherwise noted, responses were assessed using a 5-point scale ranging from 1 = *strongly disagree* to *5 = strongly agree.*

Daily low power. We created a dummy variable for the low-power condition. Specifically, the low-power condition was coded as "1" and the control condition as "0".

Daily Paranoia. We measured paranoia in the morning survey using two items (α = .76)[10] from the scale developed by Fenigstein and Vanable (1992) that were adapted to fit the daily context. Items included "Right now, I feel like my work colleagues are using unfair means to get advantages at work" and "Right now, I wonder what hidden reason my work colleagues have for being nice to me."

Daily counterproductive work behaviors. We measured CWBs in the afternoon survey using five items (α = .88) adapted from Dalal, Lam, Weiss, Welch, and Hulin (2009). Sample items included "Today at work, I behaved in an unpleasant manner toward a work colleague" and "Today at work, I criticized a work colleague's opinion or suggestion."

Daily angry domestic behaviors. We measured angry domestic behaviors in the evening survey using five items (α = .87) from the scale by Schulz, Cowan, Pape Cowan, and Brennan (2004) adapted to fit the daily context. We asked the participants to think of their

[10] We also measured a third paranoia item ("Right now, I feel like my work colleagues have it in for me"). However, the reliability of the 3-item scale (α = .57) was below the .70 threshold and the item was thus dropped. We conducted a robustness test of our model with the 3-item scale and the interpretation of hypothesized relationships was unchanged.

interactions with their spouse (if married) or with their living partner or close family (if unmarried). Sample items included “Since leaving work today, I got angry with my spouse” and “Since leaving work today, I acted in an unkind manner towards my spouse.”

Socioeconomic status. In line with past research on SES (e.g., Dunn, Veenstra, & Ross, 2006; Koltai & Schieman, 2015), we measured SES using personal income. Specifically, we asked the participants to report their total personal income in Indian Rupees before taxes during the past 12 months. SES has been operationalized in several ways, including income, occupation, and education level (Belmi & Laurin, 2016). In this study, we choose to operationalize SES as participants’ income because our participants were working professionals who were enrolled in the same executive business program, therefore using their education level or occupation as an indicator would provide limited variance.

Controls. We controlled for social closeness because prior research has indicated that experiences of power can influence how close employees feel toward their co-workers (Foulk et al., 2020; Magee & Smith, 2013), and that social closeness can subsequently influence how employees think, feel, and act in their social environment (Galinsky, Ku, & Wang, 2005; Waugh & Fredrickson, 2006). We measured social closeness in the morning survey using the inclusion-of-other-in-self (IOS) scale developed by Aron, Aron, and Smollan (1992). We also controlled for morning mood, because it can influence employees’ feelings and behaviors at work (Rothbard & Wilk, 2011), and can be associated with paranoia (Bentall et al., 2009) and aggressive behaviors (Averill, 1983). The mood measure was adopted from Wanous, Reichers, and Hudy (1997) which uses a series of smiley faces to capture participants’ states. Specifically, participants were asked to rate how they feel at the given moment by selecting a facial expression (1= *an unhappy face* to 5 = *a smiley face*). All analyses reported include control variables but the hypothesized effects remained significant without control variables.

To verify the distinctiveness of the variables we used in our model, we conducted a

multilevel confirmatory factor analysis, which included the items for paranoia, CWB, and angry domestic behaviors at the within-person level of analysis. Using the Satorra-Bentler χ^2 difference test incorporating the Maximum-Likelihood Restricted scaled correction factors (Satorra & Bentler, 2001), we compared our proposed model where all items loaded on their own factors ($\chi^2 = 195.53$, $df = 51$) to a model where CWB and angry domestic behaviors loaded on a single factor and the rest of variables loaded on their own factors ($\chi^2 = 612.36$, $df = 53$). Results indicated that our proposed model fit the data better than the alternative model ($\Delta\chi^2 = 381.43$, $\Delta df = 2$, $p < .001$). The fit statistics also suggested that our model fit the data well ($\chi^2 = 1442.550$, RMSEA = .078, CFI = .90, SRMR = .05), thus we retained this model.

Results

Table 3 presents descriptive statistics as well as within- and between-person correlations for all study variables. To ensure that the use of multilevel modeling was appropriate, we estimated the within-person variance in each of our focal endogenous variables. Using Mplus 8.3 (Muthén & Muthén, 2019), we estimated a null model for each variable to partition its variance into within- and between-person components. The results indicated that all the study variables had substantial within-person variance (paranoia = 43%; CWBs = 38%; angry domestic behaviors = 46%). Therefore, we tested our hypothesized model by conducting a multilevel path modeling analysis in MPlus 8.3 (Muthén & Muthén, 2019). All paths were estimated simultaneously. Hypothesized paths were estimated with free slopes while the control paths were estimated with fixed slopes (Enders & Tofighi, 2007).

Following Hofmann at al. (2000), endogenous variables at the within-person level were group-mean centered to remove between person confounds. The between person variable (SES) was grand-mean centered. The path model is illustrated in Figure 6 (control variables were excluded for simplicity), and the unstandardized coefficients are presented in Table 4. We used a Monte Carlo simulation with 20,000 replications to construct 95%

confidence intervals for each indirect effect (Preacher, Zyphur, & Zhang, 2010).

Hypothesis 1 predicted that daily low power would be positively related to daily paranoia. The association between low power and paranoia was not significant (β = .02, *SE* = .05, *p* = .71; Table 4 Model 1). Hypothesis 1 was thus not supported. Hypothesis 3a predicted that SES would moderate the positive relationship between low power and paranoia. There was a significant interaction effect of SES on the relationship between low power and paranoia (β = -.08, *SE* = .03, *p* = .004; Table 4 Model 2). Following the recommendation of Cohen, Cohen, West, and Aiken (2003), we plotted this interaction at the average, high (+1*SD*), and low (-1*SD*) levels of SES (Figure 7). Furthermore, using the procedure described by Preacher, Curran, and Bauer (2006), we estimated the simple slopes at high (+1*SD*) and low (-1*SD*) levels of SES. Consistent with Hypothesis 3a, results indicated the positive relationship between daily low power and daily paranoia was not significant for individuals with high SES (β = -.09, *SE* = .07, *p* = .19), but was positive and significant for those with low SES (β = .13, *SE* = .06, *p* = .024). Thus, while we did not find a significant effect of daily low power on daily paranoia at mean or high levels of SES, the effect was positive and significant at low levels of SES. We return to this finding in the study discussion.

We next examined whether paranoia predicted aggression (Hypothesis 2a), whether paranoia mediated the indirect effect of low power on aggression (Hypothesis 2b), and whether SES moderated this indirect effect (Hypothesis 3b). We tested these relationships on employees' aggressive behaviors both at work (CWBs) and at home (angry domestic behavior). We first analyzed the effects on CWBs. As shown in Table 4 (Model 2), paranoia had a significant positive effect on CWBs (β = .05, *SE* = .02, *p* = .015), supporting Hypothesis 2a. Next, following the procedure recommended by Preacher et al. (2010), we tested a 95% confidence interval for the indirect effect of low power on CWBs via paranoia. At mean levels of SES, this indirect effect was not significant (95% CI [-.0035, .0084]). Next,

we tested this indirect effect at high (+1*SD*) and low (-1*SD*) levels of SES. As expected, at high (+1*SD*) SES, this indirect was non-significant (95% CI [-.0155, .0010]), but at low (-1*SD*) SES, this relationship was positive and significant (95% CI [.0007, .0185). Thus, although Hypothesis 2b was not supported at mean SES, we did find support at low SES which is consistent with the moderation proposed in Hypothesis 3b.

We next analyzed the effects of daily angry domestic behaviors. As shown in Table 4 Model 2, the relationship between paranoia and angry domestic behaviors was positive and significant (β = .14, *SE* = .05, *p* = .006), supporting Hypothesis 2a. At mean SES, the indirect effect of low power on angry domestic behaviors via paranoia was not significant (95% CI [-.0099, .0213]), thus Hypothesis 2b was not supported. Next, we tested this indirect effect at high (+1*SD*) and low (-1*SD*) levels of SES. As expected, at high (+1*SD*) SES, this relationship was not significant (95% CI [-.0426, .0028]), but it was positive and significant at low (-1*SD*) SES (95% CI [.0019, .0488]), providing support for Hypothesis 3b.[11]

We used the procedure recommended by Snijders and Bosker (1999) to calculate the *pseudo-R^2 (~R2)* for each focal endogenous variable in our model to estimate the variance explained by our model in each of these variables. Results indicated that our model explained 14% of the variance in daily paranoia, 35% of the variance in counterproductive behaviors, and 9% of the variance in angry domestic behaviors.

Discussion

Study 3b tested our theoretical model in a field setting. Replicating the moderation found in Study 3a, we found that low power heightened employee's paranoia when SES was low, but not at mean or high SES. Paranoia, in turn, was positively associated with aggressive

[11] We did not hypothesize a direct effect of low power on aggression, but we report it here for completeness. Low power (vs. control) did not directly predict CWB (β = .00, *SE* = .03, *p* = .96) or angry domestic behaviors (β = -.01, *SE* = .05, *p* = .92). Although we find significant direct effects in Studies 2 and 4, the absence of a direct effect in Study 3b suggests that paranoia is an important link in explaining the indirect effect of low power on aggression. We further discuss this in the General Discussion.

behaviors during the day, both at work and at home, and paranoia mediated the indirect effect of low power on aggression for participants with low SES.

While Study 3a provided unqualified support for a main effect of low power on paranoia (Hypothesis 1), Study 3b only provided partial support as the effect was conditional on SES being low (consistent with Hypothesis 3b). One potential reason for this pattern of results is that our Study 3b sample can be considered high in SES, as we recruited executives attending an elite business school. Indeed, the average income reported by the participants in our sample was 1,846,200 (*SD* = 139,616) Indian rupees (equivalent to about USD 24,640[12]) which is ~13 times more (and significantly larger, $t(65) = 9.96$, $p < .001$) than the country's per-capita nominal income of 134,226 rupees (about USD 1,790[5]) during the time of the data collection period (National Statistical Office of India, 2020). Thus, participants at mean levels of SES in our sample are relatively high in SES, which implies that the results of Study 3b are likely consistent with our theorizing for the moderating role of SES.

STUDY 4

The purpose of the final study was twofold. First, we wanted to identify a contextual boundary condition that could simultaneously serve as an organizational intervention to buffer the effects of low power (vs. baseline) on paranoia. Specifically, we tested our prediction that organizational support can serve as a contextual resource that would compensate for a lack of power and, in turn, attenuate the effect of low power on paranoia and aggression. Second, in Studies 2-3, we measured aggressive tendencies towards other people (i.e., work colleagues, spouses). However, employees may also be aggressive towards their organization (Hershcovis & Barling, 2010; Spector, 1978). Thus, in Study 4 we measured aggression directed at the organization.

Participants

[12] As of August 24, 2020 (exchange rate: 1 INR = 0.0133 USD)

We recruited 1,217 individuals from across the United States via Amazon's Mechanical Turk in exchange for US$1.00. Participants' average age was 36.97 years (*SD* = 97) and 42.5% were female. Sample size was calculated based on the assumption of a small effect size (*f* = .10) for the interaction effect and 80% statistical power. The minimum sample size required was 272 and we thus collected 300 participants per condition. As in Study 1, participants had to have successfully completed at least 500 HITs, have a study approval rating of 97% or higher, and pass an attention check. Twenty participants (1.6%) failed the attention check (requiring participants to click "strongly agree" to demonstrate that they read things carefully) and were excluded, leaving a final sample of 1,197 participants. Participants were randomly assigned to one of four conditions in a 2(power: low power vs. control) × 2(organizational support: yes vs. control) between-subjects design.

Procedure

Participants were led to believe that they would participate in a two-part study. In the first part, they completed a "Leadership Questionnaire" adopted from Anderson and Berdahl (2002). In the questionnaire, participants reported demographic information and a series of personality questions. Next, participants learned that the questionnaire they completed is typically used to assess people's leadership potential, and that in the second part of the study they would be given a role within a work team that reflected this potential. This assignment to a role served as our manipulation of low power, though in reality assignment was random.

To manipulate experienced low power, we followed the role manipulation procedure of Anderson and Berdahl (2002). Specifically, in the *low-power condition* participants learned that they had been assigned the role of an "Analyst" in a work team at a company called "Intertech Industries." They were further told that as analyst, they had to follow the instructions of the other people with the team (i.e., their supervisors), who oversaw their evaluations and compensation. They were told that they had very little power in the team and

that everybody in the team had power over them. They were also shown a picture of their workspace at Intertech (a small cubicle). Participants in the *control condition* were told that they would be working with other individuals (i.e., their co-workers) in a team. They were informed that they had the same amount of power as their co-workers within their team. They were also shown a picture of their workspace (a mid-sized office).

Next, participants received an email from the CEO at Intertech. In this email, the CEO informed participants about the details of an upcoming staff meeting. This email served as the context for the organizational support manipulation. In the *organizational support condition*, the email contained an additional paragraph (see Farh & Chen, 2014; Škerlavaj, Černe, & Dysvik, 2014). The paragraph read: "Also, I just wanted to let you know that if at any point you aren't sure how to do something or you need any help, you can always ask the management team or me for help. We will be more than happy to provide assistance or guidelines to help you complete your tasks. You can always count on the support of the management team!" In the *control condition*, the above statement was omitted. Next, participants completed our dependent measures, their demographics, and were debriefed.

Measures

***Paranoia*.** Participants completed the same 8-item ($\alpha = .95$) scale of paranoia as in Studies 1 and 2 (e.g., "I feel like my co-workers have it in for me").

Organizational aggression. To measure aggressive tendencies towards the organization, we adapted a 5-item scale developed by Spector, Bauer, and Fox (2010) which measured counterproductive work behaviors directed at the organization. Specifically, participants indicated to what extent they would engage in a series of five different behaviors. Example behaviors were: "Purposely waste my employer's materials/supplies," "Complain about insignificant things at work," and "Tell people outside the job what a lousy place I work for" (1 = *strongly disagree*; 7 = *strongly agree*; $\alpha = .90$).

Manipulation check. To assess the effectiveness of the low-power manipulation, we used the 8-item Sense of Power scale developed by Anderson et al. (2012) to measure how powerful participants felt in their role (e.g., "I think I have a great deal of power," "I feel that I would easily get my way;" 1 = *strongly disagree*; 7 = *strongly agree*; α = .86). As a manipulation check for organizational support, participants indicated their agreement with the statements "the culture at Intertech Industries is supportive" and "the leadership at Intertech Industries is supportive" (1 = *strongly disagree*; 7 = *strongly agree*; r = .89, $p < .001$).

Results

The manipulation of low power was effective. Participants in the low-power condition reported feeling less powerful ($M = 3.06$, $SD = 1.16$) than those in the control condition ($M = 4.02$, $SD = .99$), $F(1, 1193) = 232.38$, $p < .001$. Organizational support did not significantly affect perceived power ($p = .09$) nor was there an interaction effect ($p = .28$).

The organizational support manipulation was also effective. Participants in the organizational support condition indicated that the organization was more supportive ($M = 5.94$, $SD = 1.00$) than participants in the control condition ($M = 4.97$, $SD = 1.14$), $F(1, 1193) = 259.72$, $p < .001$. Not surprisingly, there was also a significant main effect of the low-power manipulation on perceived organizational support such that perceived organizational support was higher in the control condition ($M = 5.75$, $SD = .99$) than in the low-power condition ($M = 5.16$, $SD = 1.27$), $F(1, 1193) = 91.62$, $p < .001$, and as a result there was also an interaction effect of the low-power and organizational support manipulations, $F(1, 1193) = 11.60$, $p = .001$. This finding is in line with research showing that perceived organizational support is positively associated with perceived power (Caza, Tiedens, & Lee, 2011), suggesting that in the control condition there may have been less "room for improvement" in terms of organizational support. Importantly, however, the organizational support induction significantly increased perceived organizational support in both the low-power condition,

$F(1, 1193) = 190.97$, $p < .001$, and the control condition, $F(1, 1193) = 80.59$, $p < .001$.

We predicted that low power (vs. control) would lead to higher levels of paranoia (Hypothesis 1), which, in turn, would lead to higher levels of CWB (Hypothesis 2a), and that the effect of low power on CWB would be mediated by paranoia (Hypothesis 2b). We further predicted that organizational support would attenuate these effects (Hypothesis 4a/b). Thus, we tested these predictions by estimating a first-stage moderated mediation model (Hayes, 2013, PROCESS Model 7). Supporting Hypothesis 4a, there was a significant interaction of the low-power and organizational support manipulations on paranoia, $\beta = .37$, $SE = .16$, $t(1193) = 2.38$, $p = .018$. Supporting Hypothesis 1, the effect of low power on paranoia was significant in the control condition, $F(1, 1193) = 26.50$, $p < .001$, $d = .42$, such that those in the low power condition felt more paranoid ($M = 3.32$, $SD = 1.42$) than control participants ($M = 2.75$, $SD = 1.33$). Supporting Hypothesis 4a, the conditional direct effect in the organizational support condition was attenuated, $F(1, 1193) = 3.09$, $p = .08$, $d = .15$, such that low-power participants ($M = 2.88$, $SD = 1.33$) and control participants ($M = 2.69$, $SD = 1.37$) felt similarly paranoid (Figure 8, top panel).

Supporting Hypothesis 2a, paranoia positively predicted CWB, $\beta = .68$, $SE = .02$, $t(1195) = 32.43$, $p < .001$. Next, we tested the overall first-stage moderated mediation model (Hayes, 2013, PROCESS Model 7). Supporting Hypothesis 4b, the conditional indirect effect of low power on CWB via paranoia was significant in the control condition, .37, $SE = .08$, 95% CI [.23; .52], but not when organizational support was high, .13, $SE = .07$, 95% CI [-.02; .27]. The overall moderated mediation model was also significant, -.25, $SE = .11$, 95% CI [-.46; -.04], further suggesting that the two conditional indirect effects were statistically different at the two levels of the organizational support manipulation.

Although not hypothesized, we also tested the effect of low power on CWB at the two levels of organizational support. There was a significant effect of low power on CWB in the

control condition, $F(1, 1193) = 4.21$, $p = .040$, $d = .16$, such that low power participants reported that they would engage in more CWB ($M = 2.50$, $SD = 1.41$) than control participants ($M = 2.28$, $SD = 1.28$). Conversely, the difference between low power participants ($M = 2.25$, $SD = 1.31$) and control participants ($M = 2.13$, $SD = 1.23$), was no longer significant when organizational support was high, $F(1, 1193) = 1.24$, $p = .27$, $d = .09$ (Figure 8, bottom panel).

Discussion

The final study provided additional support for our prediction that low power causes people to feel paranoid, which, in turn, leads to aggressive tendencies. Importantly, Study 4 tests a contextual moderator of our model and finds that creating a supportive organizational environment reduces the tendency of low-power employees to experience paranoid cognitions and engage in counterproductive behaviors. Study 4 also extends Studies 1-3 by showing that paranoia induced aggression may also be targeted towards organizations.

GENERAL DISCUSSION

Five studies, using different participant samples, manipulations of low power, and contexts, provide support for our theoretical model which predicted that low power increases employees' paranoia, which subsequently leads to aggression. Studies 1-2 showed that low-power individuals felt more paranoid than control participants, and that low power may have larger effects on paranoia than high power (see meta-analysis in Study 2 Discussion). Study 2 further showed that paranoia led to aggression, in the form of economic punishment of others, and established paranoia's mediating effect. In Study 3a, we measured feelings of low power and found that individuals who felt lower in power at work were more paranoid. Further, this effect was moderated by SES such that it became weaker as SES increased. In Study 3b, we manipulated low power (vs. baseline) and measured participants' subsequent experiences of paranoia and self-reported aggressive tendencies both at work and at home over a period of

two weeks. We found that low-SES employees who experienced low power in the morning subsequently reported higher levels of paranoia, which in turn predicted CWBs and angry domestic behaviors later in the day. In Study 4, we found that organizational support attenuated the effect of low power on paranoia and showed that paranoia can lead to negative behaviors towards the organization if organizational support mechanisms are not in place.

Theoretical Contributions

This research makes several important theoretical contributions to research on social power and organizational paranoia. First, we contribute to social power research by challenging the prevalent assumption that paranoia is primarily associated with high-power individuals rather than low-power individuals. Existing research suggests that one's level of power is positively related to feeling suspicious and being wary about others' motives, evoking a sense of paranoia among the powerful (e.g., Inesi et al., 2012; Mooijman, et al., 2015; Zhao & Greer, 2017). Extending this view, we argue that just because low-power individuals control fewer resources, this does not imply that they experience less paranoia. Building on COR (Hobfoll, 1988, 1989) and sociocultural perspectives on power (Kraus & Torrez, 2020), we demonstrate that lacking power can also instill a sense of paranoia, as the vulnerability inherent in feeling low in power elicits paranoia as a type of defense mechanism against potential threats. Further, we not only find evidence consistent with the idea that being powerful (vs. baseline) elicits paranoia, but also that being low in power may result in more paranoia than feeling powerful. This suggests that low power cannot simply be construed as the complement of high power (Schaerer et al., 2018a) and that studying low power as a focal phenomenon is a necessary step towards a better understanding of social power more generally.

On the surface, our high-low power comparisons in Studies 1-2 appear to be at odds with the studies by Schilke et al. (2015) and Moojiman et al. (2015), who found that high-

power individuals were *less* trustful than low-power individuals. One explanation for this divergence lies in the conceptual differences between paranoia and trust. Indeed, Chan and McAllister (2014) noted that "we view paranoid arousal not simply as a condition of low trust" (p. 48) as state paranoia also includes elements of fear/anxiety, a sense of threat, and hypervigilance (Chan & MacAllister, 2014; Kramer, 2001), which are not typically thought of as defining features of trust (Balliet & Van Lange, 2013; Mulder, Van Dijk, DeCremer, & Wilke, 2006). Considering that fear/anxiety, perceptions of threat, and vigilance are more common among low- than high-power individuals (Anderson & Berdahl, 2002; Fiske & Dépret, 1996; Keltner et al., 2003), the powerful can simultaneously be more distrustful and less paranoid than low-power individuals. Nevertheless, this comparison poses important questions for future research, such as when paranoia and trust lead to similar versus different outcomes, and whether the effects of power on trust are indeed linear.

Second, we extend prior research on COR's substitution hypothesis (Hobfoll et al., 1990), by identifying both an individual (SES) and contextual (organizational support) boundary condition of the effect of low power on paranoia. Specifically, our finding that the detrimental effects of low power are attenuated for individuals who are high in SES extends research on power and status. While recent research efforts have focused on demonstrating the differential consequences power and status (Anicich et al., 2016; Blader & Chen, 2012; Blader, Schirako, & Chen, 2016; Liu, Chen, Bell, & Tan, 2019; Yu, Hays, & Zhao, 2019), our research suggests that both bases of social hierarchy serve as resources that employees can rely on and can thus act as substitutes in preventing paranoia. This implies that power and status may have comparable effects in situations in which they satisfy similar goals. In addition, we also identified perceived organizational support as a theoretically motivated and practically relevant intervention to prevent paranoia from developing in organizations. In doing so, we not only provide support for the idea that both personal *and* social resources can

substitute for each other, but also answer recent calls for more research on identifying strategies to mitigate the negative consequences of lacking power (Albalooshi, Moeini-Jazani, Fennis, & Warlop, 2020; Schaerer, Teo, Madan, & Swaab, 2020). In sum, our studies sharpen our understanding of when and for whom being low in power is particularly aversive.

Third, we provide nuance to prior findings in the power literature. Prior social power research has assumed that low-power individuals are more inhibited and avoidant (e.g., Keltner et al., 2003; Galinsky et al., 2003; Magee et al., 2008). In contrast, our theory suggests a positive indirect link between low power and aggression via paranoia and, although not hypothesized, two of our studies (Studies 2 and 4) even found a direct effect of low power on aggression. These differences may have emerged because our studies were situated in organizational settings while psychological power research is typically less contextualized (Schaerer et al., 2018b). In organizations, it may be particularly difficult to avoid others given the relatively high level of social and structural interdependence among employees (Grant & Parker, 2009; Guzzo & Shea, 1992; Jehn, 1995; Van der Vegt, Emans, & Van De Vliert, 2001). Indeed, the interdependence underlying modern organizations makes it “difficult for employees to complete their work independently” (Mathieu et al., 2000, p. 273) and thus employees “often pay close attention to each other” (Baron & Neuman, 1996, p. 163). As a result, inhibition and avoidance may be an ineffective and unlikely response to low-power-induced paranoia. There may also be other factors that influence whether low power leads to approach- or inhibition-type behaviors, such as whether people are high or low in competence (Fast & Chen, 2009), construe power as an opportunity or responsibility (Sassenberg, Ellemers, & Scheepers, 2012), or believe that power is afforded to people who behave in a virtuous or coercive way (ten Brinke & Keltner, 2020).

In a similar vein, we contribute to a growing stream of research establishing the importance of paranoia in explaining organizational outcomes. Specifically, while previous

perspectives on organizational paranoia have suggested that aggression is a likely behavioral outcome of paranoia (Chan & McAllister, 2014), this idea has never been rigorously tested, therefore it is unclear who this aggression would be directed towards or how it might manifest. In this way, the present research contributes to our understanding of organizational paranoia by showing that it can lead to hostility towards others (Study 2) as well as CWBs directed towards co-workers (Study 3b) and the organization (Study 4). Additionally, we also extend Chan and McAllister's (2014) model of employee state paranoia by demonstrating that the behavioral targets of paranoia may not necessarily be tied to the precipitating event (e.g., work colleagues), but can also carry over into unrelated life domains (Study 3b).

Practical Implications

Our findings have important implications for the way managers and organizations understand the consequences of low power. First, by demonstrating that low-power experiences can be a dynamic predictor of paranoia, our work highlights that employees' own internal mental representations of the work environment can be an important determinant of why they sometimes feel paranoid at work. A popular quip about paranoia is that "just because you're paranoid doesn't mean they aren't out to get you" – our work juxtaposes this statement by demonstrating that "just because they aren't out to get you doesn't mean you're not paranoid." In other words, our work highlights that employees can become paranoid independent of observable factors in the work environment. Being low in power is common (Smith & Hofmann, 2016), and the experience of power can be motivated by subtle environmental cues (Bargh, Raymond, Pryor, & Strack, 1995). Thus, managers should recognize that when diagnosing employees who seem paranoid for no justifiable reason, it may be because a subtle experience at work made them feel low in power and vulnerable.

Additionally, given that paranoia can have costly consequences for organizations (Annison & Wilford, 1998) and that most people feel low in power on a regular basis

(Schaerer et al., 2018a; Smith & Hofmann, 2016), it may be especially important for organizations to put effective affirmation mechanisms in place to prevent employees from experiencing paranoia and engaging in negative interpersonal behaviors. Our final study suggests that organizations should focus on creating a supportive work environment to reduce fear-driven behaviors and hostile attitudes. Potential ways to create a supportive climate include increasing perceived procedural justice in resource allocation and promotion decisions, reducing the incentivization of self-serving behaviors, strengthening supervisor-subordinate relationships, increasing job security, and removing job stressors such as work overload and incompatible responsibilities (Rhoades & Eisenberger, 2002).

Strengths, Limitations, and Future Research

Our studies have several strengths worth noting. By conducting a field experiment (Study 3b) in which the downstream consequences of low power were directly relevant to participants' day-to-day behaviors at their workplace, we respond to recent calls for more organizational relevance and better external validity in social power research (Schaerer et al., 2018b; Sturm & Antonakis, 2015). In addition, our multi-study package replicated our hypotheses at both the within- and between-person levels, providing a more robust test of our theoretical model (Gabriel et al., 2018). Third, we tested the association between low power and paranoia using both structural and psychological operationalizations of power. This is important because Tost and Johnson (2019) recently noted that "it is far from clear that psychological and structural power function in the same way" (p. 26).

Despite these strengths, our studies have some limitations which provide exciting opportunities for future research. First, while we primarily explored the negative consequences of paranoia, we should note that paranoia and its downstream consequences may not necessarily be dysfunctional. For example, paranoia can be helpful if it alerts employees to actual threats in the work environment. To this point, Herb Kelleher, co-

founder of Southwest Airlines once said: “I have predicted at least 11 of the last 3 recessions” (Pennington, 2016). Thus, although paranoia sometimes leads to negative attributions and excessive vigilance, at other times paranoia may be adaptive.

Second, we operationalized aggression as non-violent behaviors because these are most relevant to organizational settings. Indeed, true aggression is exceedingly rare in work settings (Aryee, Chen, Sun, & Debrah, 2007), but mild, non-violent forms of aggression tend to be quite prevalent (Schilpzand et al., 2016). However, we would encourage future research to extend our work by testing whether the paranoia that comes with being low (or high) in power can also lead to more violent types of aggression, such as abuse, harassment, and physical violence. Further, while our focus was on aggression as an outcome of low-power induced paranoia, this is not the only possible reaction employees may have (Chan & McAllister, 2014), and we encourage future research to consider other behavioral responses.

Third, although we replicated our effects across diverse participant samples from the United States, Singapore, and India, future research should more systematically investigate whether our predictions hold in other countries, as some scholars have suggested that power may be construed differently across cultures (Zhong, Magee, Maddux, & Galinsky, 2006). Indeed, one assumption of our theoretical model is that having few resources is typically associated with being vulnerable, which is particularly the case in hierarchical societies. However, it would be interesting to examine whether people in egalitarian cultures (e.g., Netherlands, Iceland) have learned the association between low power and vulnerability to a lesser extent or whether they are aware of it but less worried when low in power. In addition, both studies testing the moderating role of SES sampled participants from relatively well-off populations and countries (Henrich, Heine & Norenzayan, 2010). Thus, we would encourage future research to replicate our effects in more financially precarious populations.

Fourth, we explored SES and organizational support as two moderators of the effect of low power on paranoia. Although both moderators represented alternative resources that are well-suited to attenuate employees' sense of vulnerability, there may be other resources employees could rely on. While critics of the COR perspectives suggest that "nearly anything good can be considered a resource" (Halbesleben et al., 2014, p. 1337), we believe that whether and to what extent a resource attenuates the effect of low power on paranoia depends on the functional proximity of a resource to power. Indeed, Foa and Foa (2012) developed a classification system for different resources which suggest that functionally similar resources can be substituted for one another more easily and more efficiently than dissimilar ones. Thus, not all resources may be equally effective in reducing employees' vulnerability. In addition, the value of resources may be context-specific such that some resources (e.g., POS) are effective in some situations (e.g., at work) but ineffective in other contexts (e.g., at home). Thus, we encourage future research to explore additional resources to substitute for a lack of power and whether these substitution effects generalize across contexts.

Fifth, in the current research we focused on examining the consequences of *low* power. However, emerging research has started to distinguish between being low in power and having no power at all (Handgraaf, Van Dijk, Vermunt, Wilke, & De Dreu, 2008; Schaerer et al., 2015). While our theoretical reasoning suggests that individuals who have no power at all should feel even more vulnerable and paranoid than those who are low in power, the present studies did not allow us to test this. In addition, while we consistently observe the effects of low power (vs. baseline) on paranoia, our study designs were not able to determine the temporal duration of this effect, and we encourage future research to consider how long low-power induced paranoia lasts once it is evoked.

Sixth, our theoretical model suggests that employees associate low power states with vulnerability, which motivates paranoia as a vigilance process. This implies that low power

states are inherently aversive or undesirable, which seems to contradict evidence that people sometimes prefer low power positions (Schmid Mast & Hall, 2003; Schmid Mast, Hall, & Schmid, 2010). More recent work has questioned the assumption that low power states are undesirable (Reit, Gruenfeld, & Monin, 2020), and our work suggests that there are important dispositional and contextual factors, such as SES and POS, that can influence whether low power is experienced as an aversive state. Thus, we believe that when and why low power is considered desirable versus undesirable is an interesting direction for future research.

Finally, while our investigation focused on social power as an antecedent of paranoia, future research may examine whether our predictions extend to other types of power and different bases of social disadvantage. It would be interesting to study whether being low on personal power (Lammers, Stoker, & Stapel, 2009) also induces paranoia and whether social and personal power can act as substitutes for each other. In addition, many societies are still characterized by hierarchies that discriminate against individuals from different social categories (e.g., gender, race). Such disadvantaged individuals may thus exhibit similar reactions to those of low-power individuals, which is consistent with Rucker et al.'s (2018) assertion that different manifestations of hierarchy often have common underlying processes.

REFERENCES

Adler, N. E., Epel, E. S., Castellazzo, G., & Ickovics, J. R. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy white women. *Health Psychology*, *19*, 586 –592.

Albalooshi, S., Moeini-Jazani, M., Fennis, B. M., & Warlop, L. (2020). Reinstating the resourceful self: when and how self-affirmations improve executive performance of the powerless. *Personality and Social Psychology Bulletin*, *46*(2), 189-203.

Anderson, C., & Berdahl, J. L. (2002). The experience of power: examining the effects of power on approach and inhibition tendencies. *Journal of Personality and Social Psychology*, 83(6), 1362-1377.

Anderson, C. A., & Bushman, B. J. (2002). The effects of media violence on society. *Science*, 295(5564), 2377-2379.

Anderson, C., & Brion, S. (2014). Perspectives on power in organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(1), 67-97.

Anderson, C., John, O. P., & Keltner, D. (2012). The personal sense of power. *Journal of Personality*, 80(2), 313-344.

Angell, M. (1993). Privilege and health – What is the connection? *New England Journal of Medicine*, 329, 126–127.

Anicich, E. M., Fast, N. J., Halevy, N., & Galinsky, A. D. (2016). When the bases of social hierarchy collide: Power without status drives interpersonal conflict. *Organization Science*, 27(1), 123-140.

Anicich, E. M., Schaerer, M., Gale, J., & Foulk, T. A. (2021). A fluctuating sense of power is associated with reduced well-being. *Journal of Experimental Social Psychology, 92*, 104057.

Annison, M. H., & Wilford, D. S. (1998). *Trust matters: New directions in health care leader*

ship. San Francisco, CA: Jossey-Bass.

Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of Other in the Self Scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, 63(4), 596-612.

Aryee, S., Chen, Z. X., Sun, L.-Y., & Debrah, Y. A. (2007). Antecedents and outcomes of abusive supervision: Test of a trickle-down model. *Journal of Applied Psychology*, 92(1), 191-201.

Averill, J. R. (1983). Studies on anger and aggression: Implications for theories of emotion. *American Psychologist*, 38(11), 1145-1160.

Balliet, D., & Van Lange, P. A. M. (2013). Trust, conflict, and cooperation: A meta-analysis. *Psychological Bulletin*, 139(5), 1090–1112

Bargh, J. A., Raymond, P., Pryor, J. B., & Strack, F. (1995). Attractiveness of the underling: An automatic power → sex association and its consequences for sexual harassment and aggression. *Journal of Personality and Social Psychology*, 68(5), 768-781.

Baron, R. A., & Neuman, J. H. (1996). Workplace violence and workplace aggression: Evidence on their relative frequency and potential causes. Aggressive Behavior: *Official Journal of the International Society for Research on Aggression*, 22(3), 161-173.

Belmi, P., Barragan, R. C., Neale, M. A., & Cohen, G. L. (2015). Threats to social identity can trigger social deviance. *Personality and Social Psychology Bulletin*, 41(4), 467-484.

Belmi, P., & Laurin, K. (2016). Who wants to get to the top? Class and lay theories about power. *Journal of Personality and Social Psychology*, 111(4), 505-529.

Bentall, R. P., Rowse, G., Shryane, N., Kinderman, P., Howard, R., Blackwood, N., ... & Corcoran, R. (2009). The cognitive and affective structure of paranoid delusions: a

transdiagnostic investigation of patients with schizophrenia spectrum disorders and depression. *Archives of General Psychiatry*, 66(3), 236-247.

Berkowitz, L. (1993). Pain and aggression: Some findings and implications. *Motivation and Emotion*, 17(3), 277-293.

Bernstein, E. S. (2012). The transparency paradox: A role for privacy in organizational learning and operational control. *Administrative Science Quarterly, 57*(2), 181-216.

Bies, R. J., & Tripp, T. M. (2005). The Study of Revenge in the Workplace: Conceptual, Ideological, and Empirical Issues. In S. Fox & P. E. Spector (Eds.), Counterproductive work behavior: Investigations of actors and targets (p. 65–81). *American Psychological Association*. https://doi.org/10.1037/10893-003

Blader, S. L., & Chen, Y. R. (2012). Differentiating the effects of status and power: a justice perspective. *Journal of Personality and Social Psychology*, 102(5), 994-1014.

Blader, S. L., Shirako, A., & Chen, Y. R. (2016). Looking out from the top: Differential effects of status and power on perspective taking. *Personality and Social Psychology Bulletin*, *42*(6), 723-737.

Bowling, N. A., & Beehr, T. A. (2006). Workplace harassment from the victim's perspective: A theoretical model and meta-analysis. *Journal of Applied Psychology*, 91(5), 998-1012.

Callan, V. J., Terry, D. J., & Schweitzer, R. (1994). Coping resources, coping strategies and adjustment to organizational change: direct or buffering effects? *Work & Stress*, 8(4), 372-383.

Caza, B. B., Tiedens, L., & Lee, F. (2011). Power becomes you: The effects of implicit and explicit power on the self. *Organizational Behavior and Human Decision Processes,* 114(1), 15-24.

Chan, M. E., & McAllister, D. J. (2014). Abusive supervision through the lens of employee state paranoia. *Academy of Management Review*, 39(1), 44-66.

Chmielewski, M., & Kucker, S. C. (2019). An MTurk crisis? Shifts in data quality and the impact on study results. *Social Psychological and Personality Science*, 11(4), 464-473.

Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. *Annual Review of Psychology*, 55, 591-621.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). Applied multiple correlation/ regression analysis for the behavioral sciences (3rd ed.). Mawah, NJ: Erlbaum.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98 (2), 310 – 357.

Côté, S. (2011). How social class shapes thoughts and actions in organizations. *Research in Organizational Behavior*, 31, 43-71.

Dalal, R. S., Lam, H., Weiss, H. M., Welch, E. R., & Hulin, C. L. (2009). A within-person approach to work behavior and performance: Concurrent and lagged citizenship-counterproductivity associations, and dynamic relationships with affect and overall job performance. *Academy of Management Journal, 52*(5), 1051-1066.

De Cremer, D. (2003). Why inconsistent leadership is regarded as procedurally unfair: the importance of social self-esteem concerns. *European Journal of Social Psychology*, 33(4), 535-550.

De Dreu, C. K., & Van Lange, P. A. (1995). The impact of social value orientations on negotiator cognition and behavior. *Personality and Social Psychology Bulletin*, 21(11), 1178-1188.

Dodge, K. A., & Coie, J. D. (1987). Social-information-processing factors in reactive and proactive aggression in children's peer groups. *Journal of Personality and Social Psychology, 53*(6), 1146-1158.

Dodge, K. A., & Newman, J. P. (1981). Biased Decision-Making Processes in Aggressive Boys. *Journal of Abnormal Psychology, 90*(4), 375-379.

Dunn, J. R., Veenstra, G., & Ross, N. (2006). Psychosocial and neo-material dimensions of SES and health revisited: predictors of self-rated health in a Canadian national survey. *Social Science & Medicine*, 62(6), 1465-1473.

Ellett, L., Allen-Crooks, R., Stevens, A., Wildschut, T., & Chadwick, P. (2013). A paradigm for the study of paranoia in the general population: The Prisoner's Dilemma Game. *Cognition & Emotion*, 27(1), 53-62.

Emerson, K. T., & Murphy, M. C. (2014). Identity threat at work: How social identity threat and situational cues contribute to racial and ethnic disparities in the workplace. *Cultural Diversity and Ethnic Minority Psychology,* 20(4), 508-512.

Enders, C. K., & Tofighi, D. (2007). Centering predictor variables in cross-sectional multilevel models: A new look at an old issue. *Psychological Methods*, 12(2), 121-138.

Fast, N. J., & Chen, S. (2009). When the boss feels inadequate: Power, incompetence, and aggression. *Psychological Science, 20*(11), 1406-1413.

Farh, C. I., & Chen, Z. (2014). Beyond the individual victim: Multilevel consequences of abusive supervision in teams. *Journal of Applied Psychology, 99*(6), 1074.

Fenigstein, A., & Vanable, P. A. (1992). Paranoia and self-consciousness. *Journal of Personality and Social Psychology,* 62(1), 129-138.

Fiske, S. (2010). Interpersonal stratification: Status, power, and subordination. In S. T.

Fiske, G. Lindzey, & D. T. Gilbert (Eds.). *Handbook of Social Psychology* (pp. 941–982) (5th ed.). Hoboken, NJ: Wiley.

Fiske, S. T., & Dépret, E. (1996). Control, interdependence and power: Understanding social cognition in its social context. *European Review of Social Psychology*, 7(1), 31-61.

Foa E.B., Foa U.G. (2012) Resource Theory of Social Exchange. In: Törnblom K., Kazemi A. (eds) *Handbook of Social Resource Theory. Critical Issues in Social Justice*. Springer, New York, NY.

Foulk, T. A., Woolum, A., & Erez, A. (2016). Catching rudeness is like catching a cold: The contagion effects of low-intensity negative behaviors. *Journal of Applied Psychology*, 101(1), 50-67.

Foulk, T. A., Lanaj, K., & Krishnan, S. (2019). The virtuous cycle of daily motivation: Effects of daily strivings on work behaviors, need satisfaction, and next-day strivings. *Journal of Applied Psychology*, 104(6), 755–775.

Foulk, T. A., De Pater, I., Schaerer, M., du Plessis, C., Lee., R., & Erez, A. (2020). It's lonely at the bottom (too): The effects of experienced powerlessness on social closeness and disengagement. *Personnel Psychology*, 1-31.

Foulk, T. A., Lanaj, K., Tu, M. H., Erez, A., & Archambeau, L. (2018). Heavy is the head that wears the crown: An actor-centric approach to daily psychological power, abusive leader behavior, and perceived incivility. *Academy of Management Journal*, 61(2), 661-684.

Freeman, D., & Garety, P. A. (2000). Comments on the content of persecutory delusions: does the definition need clarification? *British Journal of Clinical Psychology*, 39(4), 407-414.

Freeman, D., Garety, P. A., Bebbington, P. E., Smith, B., Rollinson, R., Fowler, D., Kuipers, E., Ray, J., & Dunn, G. (2005). Psychological investigation of the structure of

paranoia in a non-clinical population. *The British Journal of Psychiatry*, 186(5), 427-435.

Freeman, D., Pugh, K., Vorontsova, N., Antley, A., & Slater, M. (2010). Testing the continuum of delusional beliefs: An experimental study using virtual reality. *Journal of Abnormal Psychology*, 119(1), 83-92.

Freeman, D., McManus, S., Brugha, T., Meltzer, H., Jenkins, R., & Bebbington, P. (2011). Concomitants of paranoia in the general population. *Psychological Medicine*, 41(5), 923-936.

Fuller, J. A., Stanton, J. M., Fisher, G. G., Spitzmüller, C., Russell, S. S., & Smith, P. C. (2003). A Lengthy Look at the Daily Grind: Time Series Analysis of Events, Mood, Stress, and Satisfaction. *Journal of Applied Psychology*, 88(6), 1019-1033.

Gabriel, A. S., Podsakoff, N. P., Beal, D. J., Scott, B. A., Sonnentag, S., Trougakos, J. P., & Butts, M. M. (2018). Experience sampling methods: a discussion of critical trends and considerations for scholarly advancement. *Organizational Research Methods*, 22(4), 969-1006..

Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. (2003). From Power to Action. *Journal of Personality and Social Psychology*, 85(3), 453-466.

Galinsky, A. D., Ku, G., & Wang, C. S. (2005). Perspective-taking and self-other overlap: Fostering social bonds and facilitating social coordination. *Group Processes & Intergroup Relations*, 8(2), 109-124.

Gallo, L. C., & Matthews, K. A. (2003). Understanding the association between socioeconomic status and physical health: do negative emotions play a role?. *Psychological Bulletin*, 129(1), 10-51.

Grant, A. M., & Parker, S. K. (2009). 7 redesigning work design theories: the rise of relational and proactive perspectives. *Academy of Management Annals*, 3(1), 317-375.

Griskevicius, V., Delton, A. W., Robertson, T. E., & Tybur, J. M. (2011). Environmental Contingency in Life History Strategies: The Influence of Mortality and Socioeconomic Status on Reproductive Timing. *Journal of Personality and Social Psychology, 100*(2), 241-254.

Gruenfeld, D. H., Inesi, M. E., Magee, J. C., & Galinsky, A. D. (2008). Power and the objectification of social targets. *Journal of Personality and Social Psychology*, 95(1), 111-127.

Guzzo, R. A., & Shea, G. P. (1992). Group performance and intergroup relations in organizations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (p. 269–313). Consulting Psychologists Press.

Halbesleben, J. R., Neveu, J. P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the "COR" understanding the role of resources in conservation of resources theory. *Journal of Management*, 40(5), 1334-1364.

Handgraaf, M. J. J., Van Dijk, E., Vermunt, R. C., Wilke, H. A. M., & De Dreu, C. K. W. (2008). Less power or powerless? Egocentric empathy gaps and the irony of having little versus no power in social decision making. *Journal of Personality and Social Psychology*, 95(5), 1136-1149.

Hayes, A. F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. New York, NY: Guilford Press

Hayes, A. F., & Preacher, K. J. (2013). Conditional process modeling: Using structural equation modeling to examine contingent causal processes. In G. R. Hancock & R. O. Mueller (Eds.), *Quantitative methods in education and the behavioral sciences: Issues, research, and teaching. Structural equation modeling: A second course* (pp. 219-266). Charlotte, NC, US: IAP Information Age Publishing.

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world?. *Behavioral and Brain Sciences, 33*(2-3), 61-83.

Hershcovis, M. S., & Barling, J. (2010). Towards a multi-foci approach to workplace aggression: A meta-analytic review of outcomes from different perpetrators. *Journal of Organizational Behavior*, 31(1), 24-44.

Hobfoll, S. E. (1988). The ecology of stress. New York, NY: Hemisphere.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44: 513-524.

Hobfoll, S. E., Freedy, J., Lane, C., & Geller, P. (1990). Conservation of social resources: Social support resource theory. *Journal of Social and Personal Relationships*, 7(4), 465-478.

Hobfoll, S. E. (2011). Conservation of resource caravans and engaged settings. *Journal of Occupational and Organizational Psychology*, 84(1), 116-122.

Hobfoll, S. E., Johnson, R. J., Ennis, N., & Jackson, A. P. (2003). Resource loss, resource gain, and emotional outcomes among inner city women. *Journal of Personality and Social Psychology*, 84(3), 632-643.

Hobfoll, S. E., Halbesleben, J., Neveu, J. P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior*, 5, 103-128.

Hochwarter, W. A., Witt, L. A., Treadway, D. C., & Ferris, G. R. (2006). The interaction of social skill and organizational support on job performance. *Journal of Applied Psychology*, 91(2), 482-489.

Hofmann, D. A., Griffin, M. A., & Gavin, M. B. (2000). The application of hierarchical linear modeling to organizational research. In K. J. Klein & S. W. J. Kozlowski

(Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions* (pp. 467-511). San Francisco, CA, US: Jossey-Bass.

Inesi, M. E., Gruenfeld, D. H., & Galinsky, A. D. (2012). How power corrupts relationships: Cynical attributions for others' generous acts. *Journal of Experimental Social Psyc*hology, 48(4), 795-803.

Jehn, K. A. (1995). A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly*, 40, 256–282. doi:10.2307/2393638

Kandel, E. R., Schwartz, J. H., & Jessell, T. M. (2000). *Principles of Neural Science* (4th ed.). New York: McGraw-Hill.

Kawachi, I., Kennedy, B. P., Lochner, K., & Prothrow-Stith, D. (1997). Social capital, income inequality, and mortality. *American Journal of Public Health*, 87(9), 1491-1498.

Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, Approach, and Inhibition. *Psychological Review, 110*(2), 265-284.

Kipnis, D. (1972). Does power corrupt? *Journal of Personality and Social Psychology*, 24(1), 33-41.

Koltai, J., & Schieman, S. (2015). Job pressure and SES-contingent buffering: Resource reinforcement, substitution, or the stress of higher status? *Journal of Health and Social Behavior*, 56(2), 180-198.

Kramer, R. M. (1998). Paranoid cognition in social systems: Thinking and acting in the shadow of doubt. *Personality and Social Psychology Review*, 2(4), 251-275.

Kramer, R. M. (2001). 1. Organizational paranoia: Origins and dynamics. *Research in Organizational Behavior*, 23, 1-42.

Kraus, M. W., Piff, P. K., Mendoza-Denton, R., Rheinschmidt, M. L., & Keltner, D. (2012). Social class, solipsism, and contextualism: how the rich are different from the poor. *Psychological Review*, 119(3), 546.

Kraus, M. W., & Torrez, B. (2020). A psychology of power that is embedded in societal structures. *Current Opinion in Psychology*, 33, 86-90.

Lammers, J., Stoker, J. I., & Stapel, D. A. (2009). Differentiating social and personal power: Opposite effects on stereotyping, but parallel effects on behavioral approach tendencies. *Psychological Science*, 20(12), 1543-1548.

Lammers, J., Dubois, D., Rucker, D. D., & Galinsky, A. D. (2017). Ease of retrieval moderates the effects of power: Implications for the replicability of power recall effects. *Social Cognition*, 35(1), 1-17.

LeDoux, J. (1998). *The Emotional Brain: The Mysterious Underpinnings of Emotional Life*. New York: Simon and Schuster.

Lincoln, T. M., Peter, N., Schäfer, M., & Moritz, S. (2008). Impact of stress on paranoia: an experimental investigation of moderators and mediators. *Psychological Medicine*, 39(7), 1129-1139.

Liu, Y., Chen, S., Bell, C., & Tan, J. (2019). How Do Power and Status Differ in Predicting Unethical Decisions? A Cross-National Comparison of China and Canada. *Journal of Business Ethics*, 1-16.

Magee, J. C., & Smith, P. K. (2013). The social distance theory of power. *Personality and Social Psychology Review*, 17(2), 158-186.

Magee, J. C., & Galinsky, A. D. (2008). Social hierarchy: The self-reinforcing nature of power and status. *Academy of Management Annals*, 2(1), 351-398.

Marr, J. C., Thau, S., Aquino, K., & Barclay, L. J. (2012). Do I want to know? How the motivation to acquire relationship-threatening information in groups contributes to

paranoid thought, suspicion behavior, and social rejection. *Organizational Behavior and Human Decision Processes*, 117(2), 285-297.

Mark, M. M., & Folger, R. (1984). Responses to relative deprivation: A conceptual framework. *Review of Personality & Social Psychology*, 5, 192–218

Mathieu, J. E., Heffner, T. S., Goodwin, G. F., Salas, E., & Cannon-Bowers, J. A. (2000). The influence of shared mental models on team process and performance. *Journal of Applied Psychology*, 85(2), 273-283.

Mendoza-Denton, R., Downey, G., Purdie, V. J., Davis, A., & Pietrzak, J. (2002). Sensitivity to status-based rejection: implications for African American students' college experience. *Journal of Personality and Social Psychology*, 83(4), 896-918.

Mooijman, M., van Dijk, W. W., Ellemers, N., & van Dijk, E. (2015). Why leaders punish: A power perspective. *Journal of Personality and Social Psychology*, 109(1), 75-89.

Morris, C. G., & Maisto, A. A. (1999). *Psychology: An introduction* (10th Ed.). Upper Saddle River, NJ: Prentice-Hall.

Mulder, L. B., Van Dijk, E., De Cremer, D., & Wilke, H. A. (2006). Undermining trust and cooperation: The paradox of sanctioning systems in social dilemmas. *Journal of Experimental Social Psychology*, 42(2), 147-162.

Muthén, L. K., & Muthén, B. O. (2019). Mplus 8.3. Los Angeles, CA: Author.

National Statistical Office of India (2020, May 29). Provisional Estimates of Annual National Income, 2019-20 and Quarterly Estimates (q4) of Gross Domestic Product, 2019-20. Retrieved from https://pib.gov.in/PressReleseDetailm.aspx?PRID=1627671

Neuman, J. H., & Baron, R. A. (1998). Workplace violence and workplace aggression: Evidence concerning specific forms, potential causes, and preferred targets. *Journal of Management*, 24(3), 391-419.

Ones, D. S., & Viswesvaran, C. (1996). Bandwidth–fidelity dilemma in personality measurement for personnel selection. *Journal of Organizational Behavior*, 17(6), 609-626.

Pennington, R. (2016, July 19). A Perpetual State of Positive Paranoia. *Huffpost*. Retrieved from https://www.huffpost.com/entry/a-perpetual-state-of-posi_b_11057574

Pratto, F., & John, O. P. (1991). Automatic vigilance: the attention-grabbing power of negative social information. *Journal of Personality and Social Psychology, 61*, 380-391.

Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interactions in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*, 31(4), 437-448.

Preacher, K. J., Zyphur, M. J., & Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological Methods*, 15(3), 209-233.

Reit, E., Gruenfeld, D.H., Monin, B. (2020). The aspiration to rank second. Unpublished Manuscript.

Rhoades, L., & Eisenberger, R. (2002). Perceived Organizational Support: A Review of the Literature. *Journal of Applied Psychology, 87*(4), 698-714.

Rosen, C. C., Koopman, J., Gabriel, A. S., & Johnson, R. E. (2016). Who strikes back? A daily investigation of when and why incivility begets incivility. *Journal of Applied Psychology*, 101(11), 1620-1634.

Rosen, C. C., Simon, L. S., Gajendran, R. S., Johnson, R. E., Lee, H. W., & Lin, S.-H. (J.). (2019). Boxed in by your inbox: Implications of daily e-mail demands for managers' leadership behaviors. *Journal of Applied Psychology*, 104(1), 19–33.

Ross, C. E., & Mirowsky, J. (2006). Sex differences in the effect of education on depression: resource multiplication or resource substitution? *Social Science & Medicine*, 63(5), 1400-1413.

Rothbard, N. P., & Wilk, S. L. (2011). Waking up on the right or wrong side of the bed: Start-of-workday mood, work events, employee affect, and performance. *Academy of Management Journal*, 54(5), 959-980.

Rucker, D. D., Galinsky, A. D., & Magee, J. C. (2018). The Agentic–Communal Model of Advantage and Disadvantage: How inequality produces similarities in the psychology of power, social class, gender, and race. In *Advances in experimental social psychology* (Vol. 58, pp. 71-125). Academic Press.

Sassenberg, K., Ellemers, N., & Scheepers, D. (2012). The attraction of social power: The influence of construing power as opportunity versus responsibility. *Journal of Experimental Social Psychology, 48*(2), 550-555.

Satorra, A., & Bentler, P. M. (2001). A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika*, 66, 507-514.

Sarason, I., Sarason, B., Shearin, E., & Pierce, G. (1987). A brief measure of social support: Practical and theoretical implications. *Journal of Social and Personal Relationships*, 4, 497–510.

Schat, A. C., & Kelloway, E. K. (2003). Reducing the adverse consequences of workplace aggression and violence: the buffering effects of organizational support. *Journal of Occupational Health Psychology*, 8(2), 110-122.

Somech, A., & Drach-Zahavy, A. (2012). Coping with work-family conflict: The reciprocal and additive contributions of personal coping and organizational family-friendly support. *Work & Stress*, 26(1), 68-90.

Schaerer, M., Swaab, R. I., & Galinsky, A. D. (2015). Anchors weigh more than power: Why absolute powerlessness liberates negotiators to achieve better outcomes. *Psychological Science*, 26(2), 170-181.

Schaerer, M., du Plessis, C., Yap, A. J., & Thau, S. (2018a). Low power individuals in social power research: A quantitative review, theoretical framework, and empirical test. *Organizational Behavior and Human Decision Processes*, 149, 73-96.

Schaerer, M., Lee, A. J., Galinsky, A. D., & Thau, S. (2018b). Contextualizing social power research within organizational behavior. In D. L. Ferris, R. E. Johnson, & C. Sedikides (Eds.), *The self at work: Fundamental theory and research* (Organizational Frontiers Series of the Society for Industrial and Organizational Psychology, pp. 194-221). New York, NY: Routledge

Schaerer, M., Tost, L. P., Huang, L., Gino, F., & Larrick, R. (2018c). Advice giving: A subtle pathway to power. *Personality and Social Psychology Bulletin*, *44*(5), 746-761.

Schaerer, M., Teo, L., Madan, N., & Swaab, R.I. (2020). Power and negotiation: Review of current evidence and future directions. *Current Opinion in Psychology, 33*, 47-51.

Schulz, M. S., Cowan, P. A., Pape Cowan, C., & Brennan, R. T. (2004). Coming Home Upset: Gender, Marital Satisfaction, and the Daily Spillover of Workday Experience Into Couple Interactions. *Journal of Family Psychology*, 18(1), 250-263.

Schilke, O., Reimann, M., & Cook, K. S. (2015). Power decreases trust in social exchange. *Proceedings of the National Academy of Sciences*, 112(42), 12950-12955.

Schilpzand, P., De Pater, I. E., & Erez, A. (2016). Workplace incivility: A review of the literature and agenda for future research. *Journal of Organizational Behavior*, 37, S57-S88.

Schmid Mast, M. & Hall, J. A. (2003). Anybody can be a boss but only certain people make good subordinates: Behavioral impacts of striving for dominance and dominance aversion. *Journal of Personality, 71*(5), 871-892.

Schmid Mast, M. S., Hall, J. A., & Schmid, P. C. (2010). Wanting to be boss and wanting to be subordinate: Effects on performance motivation. *Journal of Applied Social Psychology, 40*(2), 458-472.

Shantz, A., Alfes, K., & Latham, G. P. (2016). The buffering effect of perceived organizational support on the relationship between work engagement and behavioral outcomes. *Human Resource Management*, 55(1), 25-38.

Sidanius, J., Cotterill, S., Sheehy-Skeffington, J., Kteily, N., & Carvacho, H. (2017). Social dominance theory: Explorations in the psychology of oppression. In C. G. Sibley & F. K. Barlow (Eds.), *The Cambridge handbook of the psychology of prejudice* (p. 149–187). Cambridge University Press. https://doi.org/10.1017/9781316161579.008

Škerlavaj, M., Černe, M., & Dysvik, A. (2014). I Get By With a Little Help From My Supervisor: Creative-Idea Generation, Idea Implementation, and Perceived Supervisor Support. *Leadership Quarterly*, *25*(5): 987–1000.

Smith, P. K., & Hofmann, W. (2016). Power in everyday life. *Proceedings of the National Academy of Sciences*, 113(36), 10043-10048.

Snijders, T., & Bosker, R. (1999). Multilevel modeling. London, UK: Sage.

Spector, P. E. (1978). Organizational frustration: A model and review of the literature. *Personnel Psychology*, 31(4), 815-829.

Spector, P. E., Bauer, J. A., & Fox, S. (2010). Measurement artifacts in the assessment of counterproductive work behavior and organizational citizenship behavior: Do we know what we think we know? *The Journal of Applied Psychology*, 95(4), 781–790.

Stephens, C., & Long, N. (2000). Communication with police supervisors and peers as a buffer of work-related traumatic stress. *Journal of Organizational Behavior*, 21(4), 407-424.

Sturm, R. E., & Antonakis, J. (2015). Interpersonal power: A review, critique, and research agenda. *Journal of Management*, 41(1), 136-163.

ten Brinke, L., & Keltner, D. (2020). Theories of power: Perceived strategies for gaining and maintaining power. *Journal of Personality and Social Psychology*.

ten Brummelhuis, L. L., & Bakker, A. B. (2012). A resource perspective on the work–home interface: The work–home resources model. *American Psychologist, 67*(7), 545.

Tepper, B. J., Dimotakis, N., Lambert, L. S., Koopman, J., Matta, F. K., Man Park, H., & Goo, W. (2018). Examining follower responses to transformational leadership from a dynamic, person–environment fit perspective. *Academy of Management Journal*, 61(4), 1343-1368.

Thewissen, V., Bentall, R. P., Lecomte, T., van Os, J., & Myin-Germeys, I. (2008). Fluctuations in self-esteem and paranoia in the context of daily life. *Journal of Abnormal Psychology*, 117(1), 143-153.

Tost, L. P. (2015). When, why, and how do powerholders "feel the power"? Examining the links between structural and psychological power and reviving the connection between power and responsibility. *Research in Organizational Behavior*, 35, 29-56.

Tost, L. P., & Johnson, H. H. (2019). The prosocial side of power: How structural power over subordinates can promote social responsibility. *Organizational Behavior and Human Decision Processes*, 152, 25-46.

Vaux, A. (1988). *Social support: Theory, research and intervention.* New York: Praeger.

Van Dijke, M., & Poppe, M. (2006). Striving for personal power as a basis for social power dynamics. *European Journal of Social Psychology*, 36(4), 537-556.

Van der Vegt, G. S., Emans, B. J., & Van De Vliert, E. (2001). Patterns of interdependence in work teams: A two-level investigation of the relations with job and team satisfaction. *Personnel Psychology*, 54(1), 51-69.

Van Vugt, M., Hogan, R., & Kaiser, R. B. (2008). Leadership, followership, and evolution: Some lessons from the past. *American Psychologist*, 63(3), 182-196.

Wanous, J. P., Reichers, A. E., & Hudy, M. J. (1997). Overall job satisfaction: How good are single-item measures? *Journal of Applied Psychology*, 82(2), 247-252.

Watson, D., & Clark, L. A. (1984). Negative affectivity: The disposition to experience aversive emotional states. *Psychological Bulletin*, 96(3), 465-490.

Waugh, C. E., & Fredrickson, B. L. (2006). Nice to know you: Positive emotions, self–other overlap, and complex understanding in the formation of a new relationship. *The Journal of Positive Psychology*, 1(2), 93-106.

Wayne, S. J., Shore, L. M., & Liden, R. C. (1997). Perceived organizational support and leader-member exchange: A social exchange perspective. *Academy of Management Journal*, 40(1), 82-111.

Wee, E. X., Liao, H., Liu, D., & Liu, J. (2017). Moving from abuse to reconciliation: A power-dependence perspective on when and how a follower can break the spiral of abuse. *Academy of Management Journal*, 60(6), 2352-2380.

Wells, J. D., Hobfoll, S. E., & Lavin, J. (1999). When it rains, it pours: The greater impact of resource loss compared to gain on psychological distress. *Personality and Social Psychology Bulletin*, 25(9), 1172-1182.

Woolum, A., Foulk, T., Lanaj, K., & Erez, A. (2017). Rude color glasses: The contaminating effects of witnessed morning rudeness on perceptions and behaviors throughout the workday. *Journal of Applied Psychology, 102*(12), 1658-1672.

Yu, A., Hays, N. A., & Zhao, E. Y. (2019). Development of a bipartite measure of social hierarchy: The perceived power and perceived status scales. *Organizational Behavior and Human Decision Processes*, 152, 84-104.

Zhao, E. Y., & Greer, L. L. (2017). When the Powerful are Paranoid: Effects on Power Struggles, and Performance. In Academy of Management Proceedings (Vol. 2017, No. 1, p. 17571). Briarcliff Manor, NY 10510: Academy of Management.

Zhong, C., Magee, J.C., Maddux, W.W., & Galinsky, A.D. (2006). Power, culture, and action: Considerations in the expression and enactment of power in East Asian and Western societies. In E.A. Mannix, M.A. Neale, & Y. Chen (Eds.), *Research on managing in teams and groups* (Vol. 9, pp. 53–73). Greenwich, CT: Elsevier Science Press

Zimbardo, P. G., Andersen, S. M., & Kabat, L. G. (1981). Induced hearing deficit generates experimental paranoia. *Science*, 212(4502), 1529-1531.

Zizzo, D. J. (2003). Money burning and rank egalitarianism with random dictators. *Economics Letters*, 81(2), 263-266.

FIGURE 1

Theoretical Model

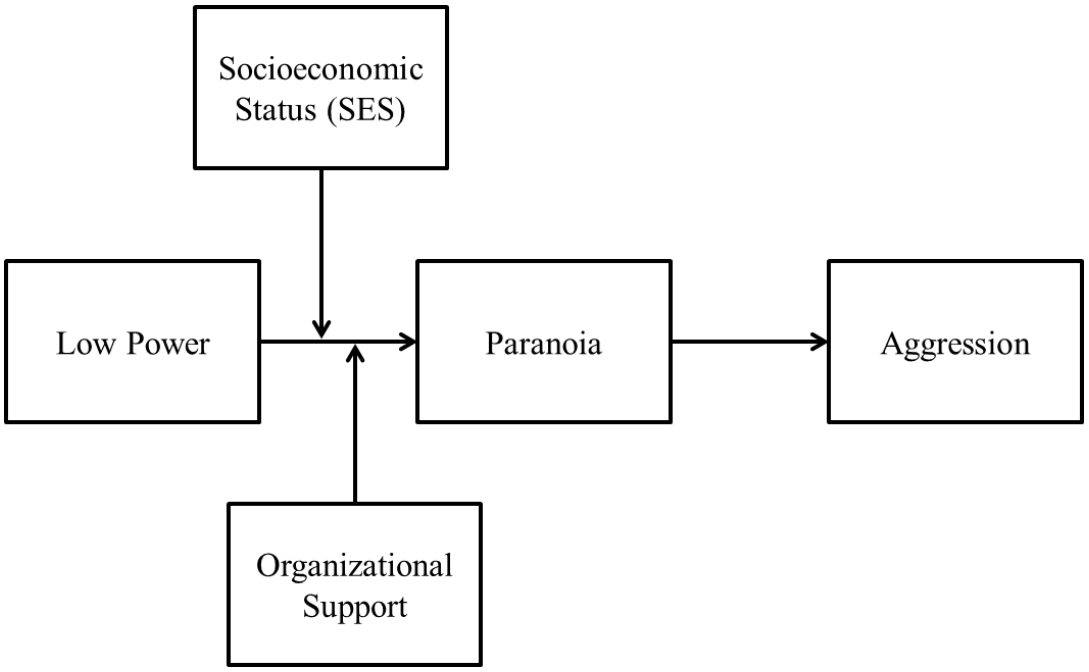


FIGURE 2

Effect of Low Power on Paranoia (Study 1)

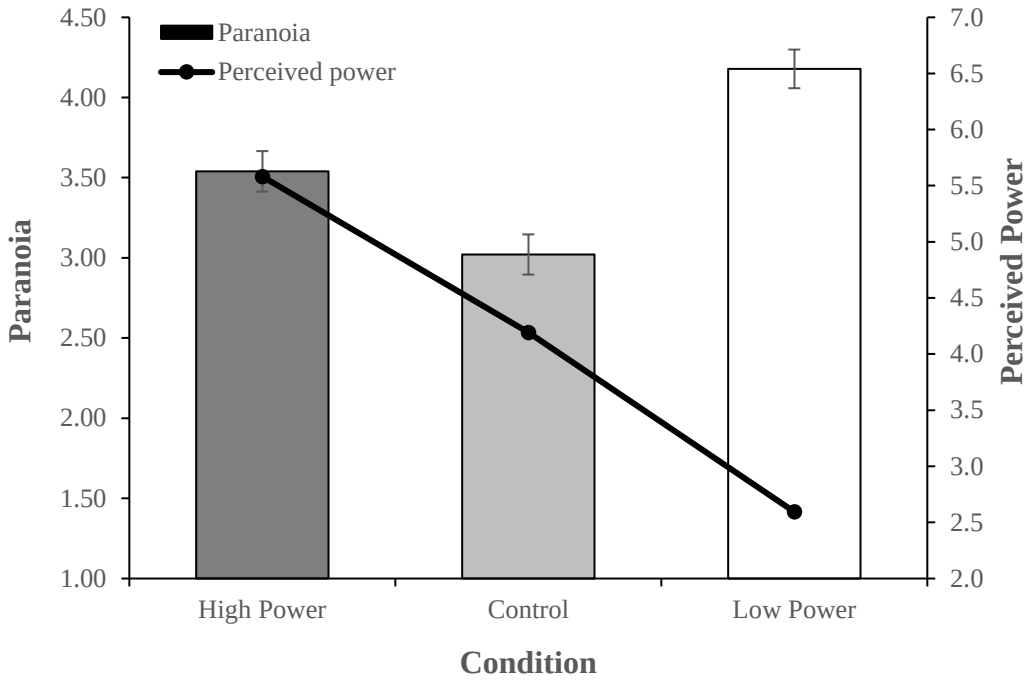
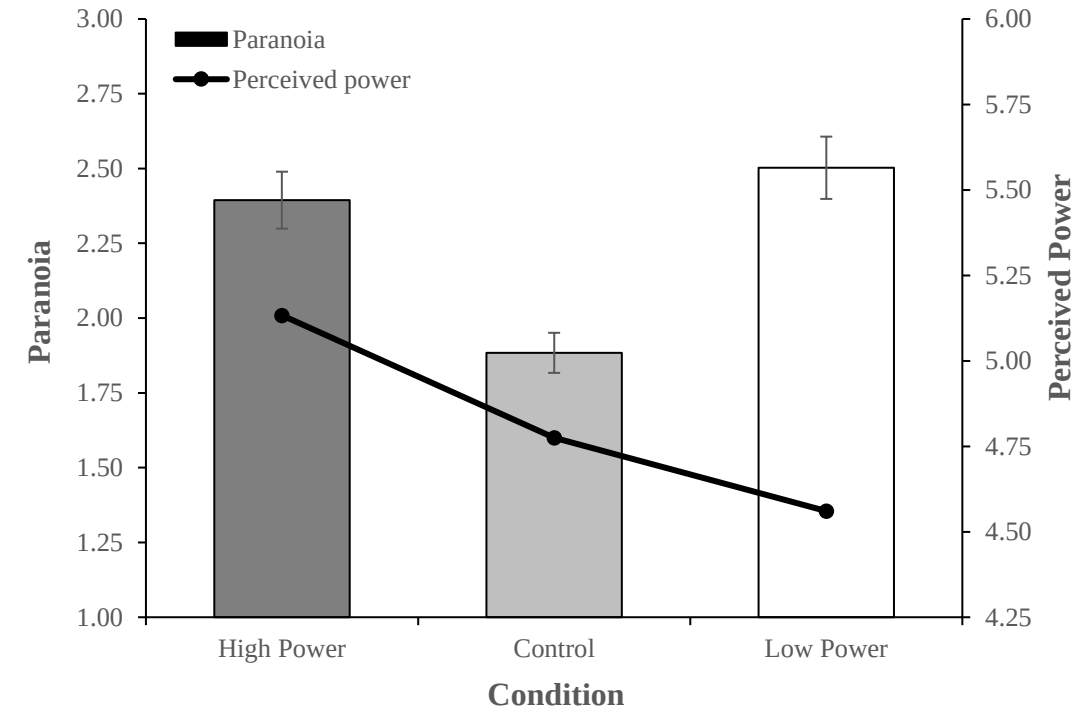


FIGURE 3

Effect of Low Power on Paranoia (top) and Aggression (bottom; Study 2)



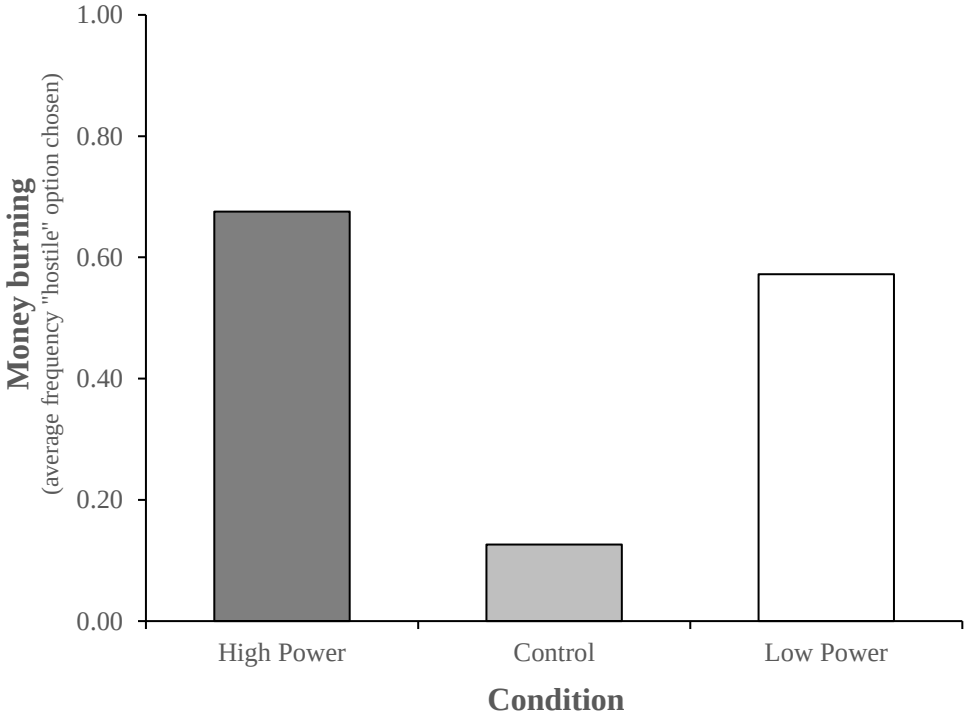
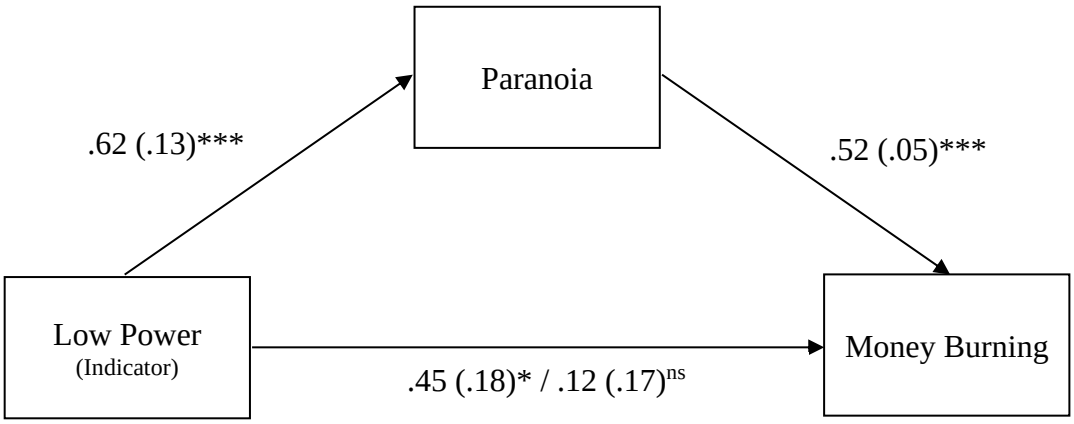


FIGURE 4

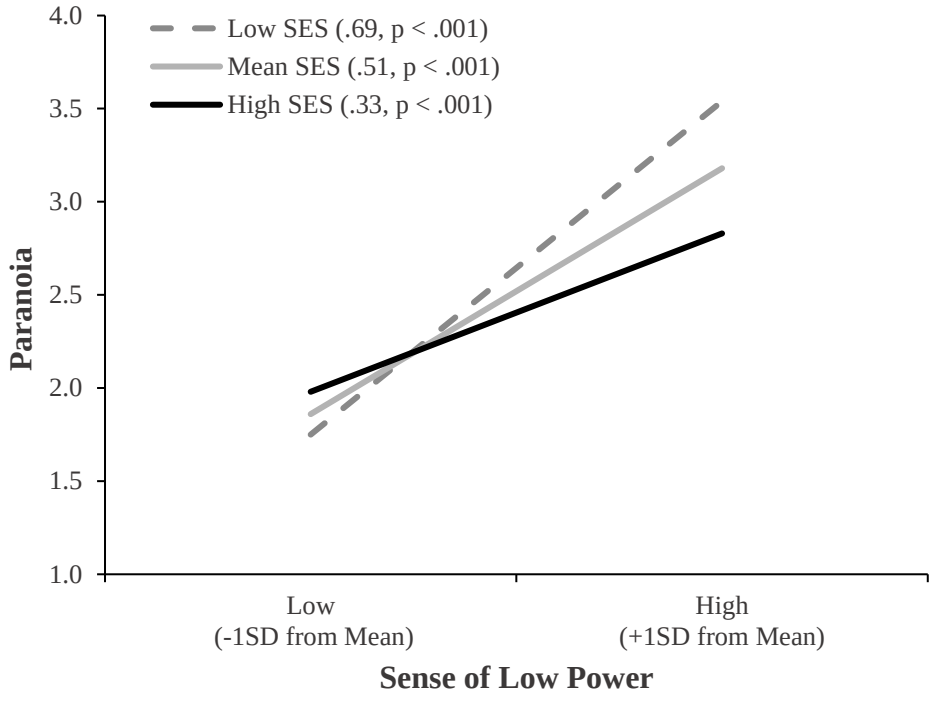
Mediating Effect of Paranoia on the Relationship between Low Power and Aggression (Study 2)



Note. Regression coefficients are unstandardized and SEs are in parentheses. For the low power → money burning path, the coefficient to the left of the slash indicates the regression coefficient of the direct effect and the coefficient to the right of the slash indicates the simultaneous regression coefficient. * $p < .05$, ** $p < .01$, *** $p < .001$.

FIGURE 5

Moderating Effect of SES 1 (top) and SES 2 (bottom) on the Relationship between Sense of Low Power and Paranoia (Study 3a)



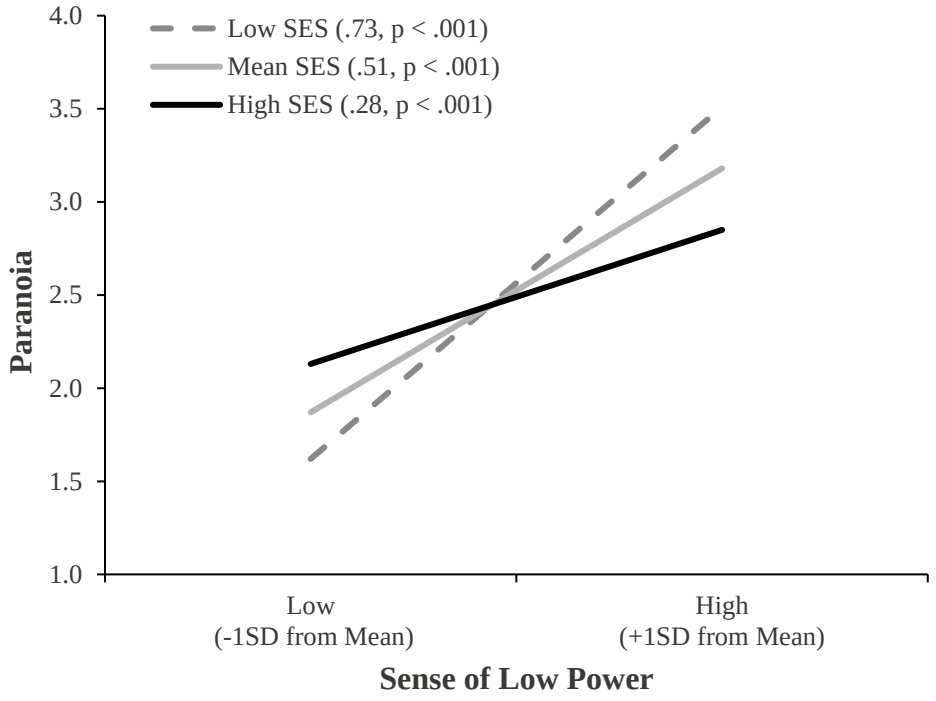
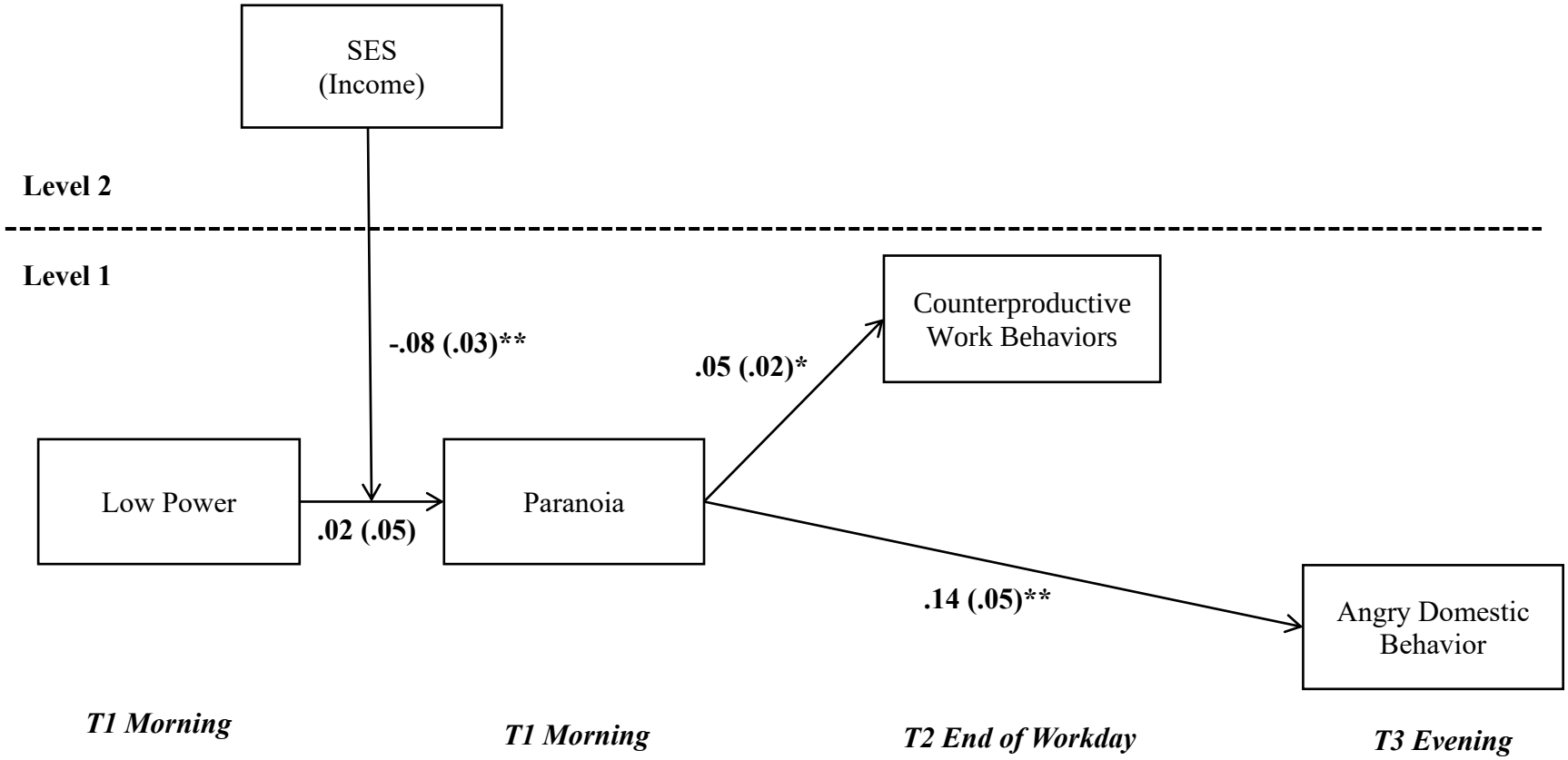


FIGURE 6

Path Model (Study 3b)



Note. For simplicity, control variables are not depicted in the model above. All results remain significant when controls were excluded.
* $p < .05$, ** $p < .01$, *** $p < .001$.

FIGURE 7

Moderating Effect of SES on the Relationship between Daily Low Power and Daily Paranoia (Study 3b)

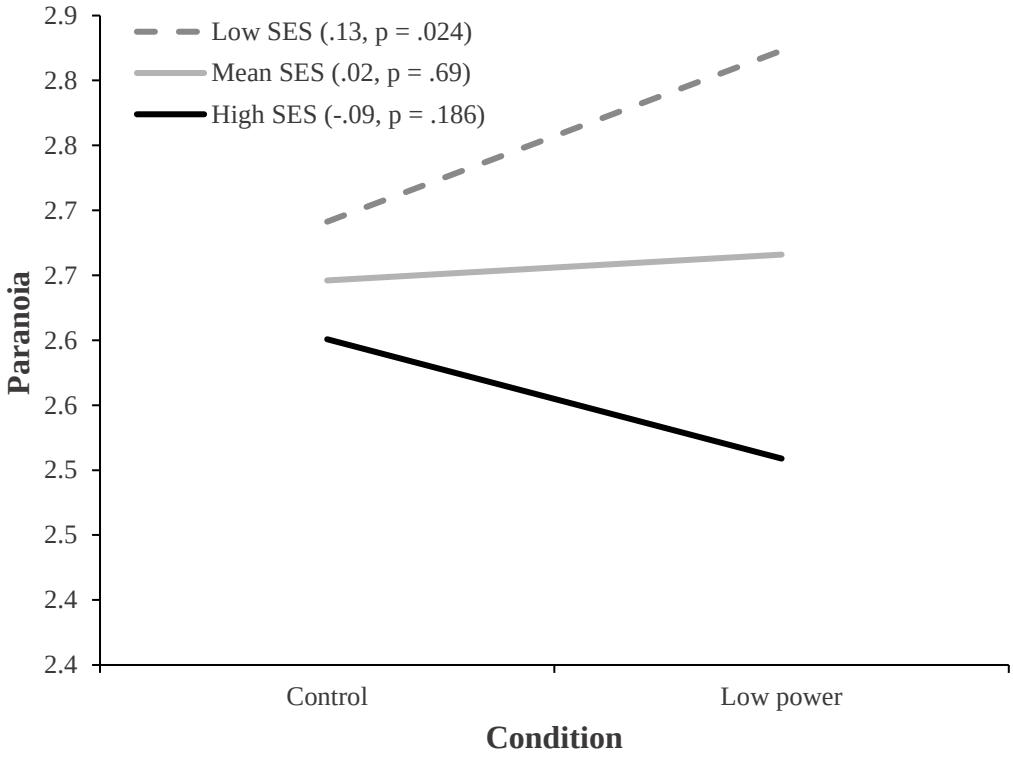
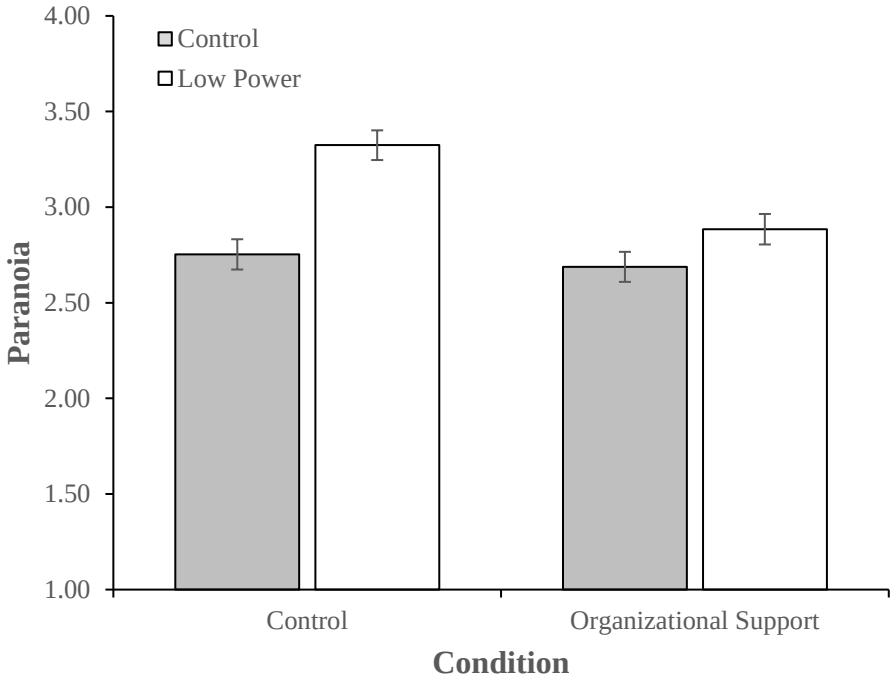


FIGURE 8

Effect of Low Power on Paranoia (top) and Aggression (bottom; Study 4)



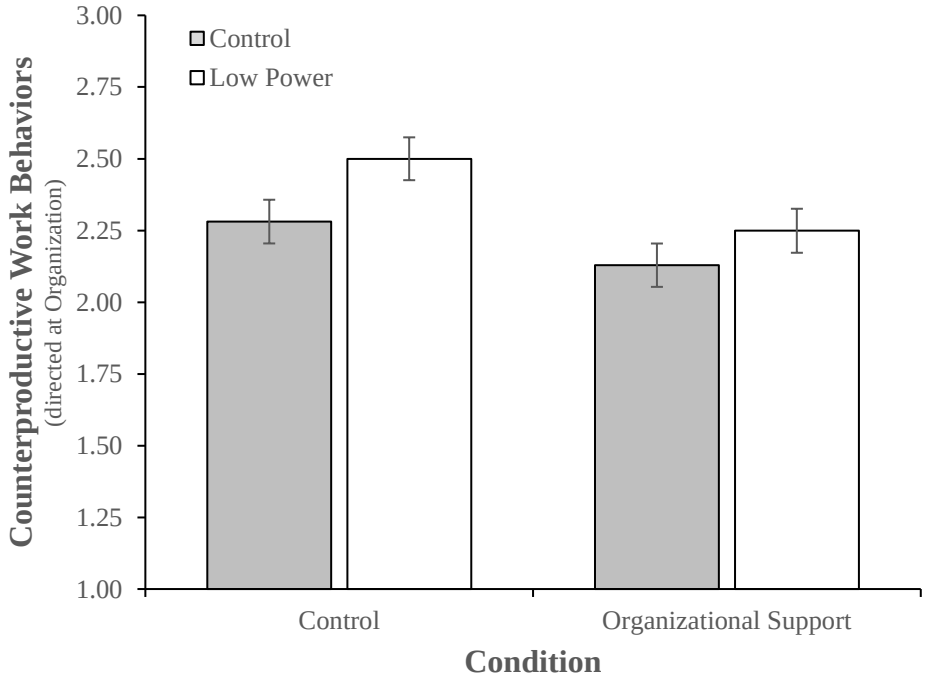


TABLE 1

Descriptive Statistics and Correlations (Study 3a)

		N	M	SD	1	2	3	4	5	6
1	Sense of Low Power	200	3.22	1.29						
2	Paranoia	200	2.52	1.12	.52***					
3	SES 1	200	5.94	1.49	.02	-.20**				
4	SES 2	200	4.48	1.28	.02	-.11	.54**			
5	Age	200	22.99	1.69	-.23**	.03	-.05	-.16*		
6	Female (dummy)	200	.68	.47	.18**	.10	-.05	.06	-.49***	

Note: SES1 refers to the MacArthur scale of subjective social status (Adler et al., 2000); SES 2 refers to the 3-item current SES scale (Griskevicius et al., 2011)

* $p < .05$; ** $p < .01$; *** $p < .001$

TABLE 2

Regression Model Results (Study 3a)

DV: Paranoia	IV: Sense of Low Power		IV: Sense of Low Power Moderator: SES 1		IV: Sense of Low Power Moderator: SES 2	
	Model 1: Main effect	Model 2: Including covariates	Model 3: Main and interaction effects	Model 4: Including covariates	Model 5: Main and interaction effects	Model 6: Including covariates
R^2	.27	.30	.39	.40	.38	.39
F	74.42***	28.24***	42.12***	26.34***	39.68***	25.07***
Intercept	1.06 (.18)***	-2.16 (1.15)	-.97 (.66)	-3.00 (1.21)*	-1.52 (.63)*	-3.75 (1.22)**
Sense of Low Power (SOLP)	.45 (.05)***	.48 (.05)***	1.23 (.16)***	1.20 (.16)***	1.30 (.17)***	1.29 (.17)***
SES 1			.31 (.10)**	.29 (.10)**		
SOLP x SES 1			-.12 (.02)***	-.11 (.02)***		
SES 2					.54 (.13)***	.53 (.13)**
SOLP x SES 2					-.18 (.03)***	-.17 (.03)***
Age		.13 (.05)**		.09 (.04)*		.09 (.04)*
Female (dummy)		.23 (.17)		.15 (.15)		.09 (.16)

Note: SES 1 refers to the MacArthur scale of subjective social status (Adler et al., 2000); SES 2 refers to the 3-item current SES scale (Griskevicius et al., 2011)

* $p < .05$; ** $p < .01$; *** $p < .001$

TABLE 3

Within-in and Between-Person Descriptive Statistics and Correlations (Study 3b)

	M	Within- SD	Between-SD	1	2	3	4	5	6	7
1 Low Power	.44	.48	.20	-	-.04	.23	.18	.08	-.07	.16
2 Paranoia	2.66	.52	.71	.02	(.76)	.31*	.37*	-.10	-.19	-.22
3 Counterproductive Work Behaviors	1.26	.28	.44	-.01	.05	(.88)	.62**	-.10	-.07	-.09
4 Angry Domestic Behavior	2.09	.49	.61	-.01	.09	.11*	(.87)	-.29**	-.23	-.13
5 Mood	3.89	.60	.58	-.04	.00	-.04	-.06	-	.04	.15
6 Social Closeness with Co-workers	4.07	.83	1.63	-.07	-.02	-.03	-.03	.16**	-	-.06
7 SES	1.85[a]	--	1.40	-	-	-	-	-	-	-

Notes: *N* (level 1) = 464; *N* (level 2) = 66. Within-individual correlations are presented below the diagonal; between-individual correlations are presented above the diagonal. Alpha coefficients are presented along the diagonal.

[a]The unit is million Indian Rupees

*$p < .05$

**$p < .01$

TABLE 4

Multilevel Path Model Results for the Moderating Effects of Income (Study 3b)

	Model 1: Hypothesis 1 testing			**Model 2: Full hypothesized model**								
	Paranoia			**Paranoia**			**Counterproductive Work Behaviors**			**Angry Domestic Behavior**		
	B	***SE***	***t***	**B**	***SE***	***t***	**B**	***SE***	***t***	**B**	***SE***	***t***
Intercept	2.65**	.08	31.63	2.66**	.08	32.01	1.11**	.07	15.41	1.72**	.15	11.39
Level 2 Predictor												
SES				-.07	.06	-1.31						
Level 1 Predictors												
Mood	.00	.05	.08	.00	.05	-.01	-.02	.02	-.77	-.05	.04	-1.17
Social Closeness	-.01	.04	-.22	-.01	.04	-.19	-.02	.01	-.13	-.02	.03	-.43
Low power	.02	.05	.38	.02	.05	.40	.00	.03	-.05	-.01	.05	-.10
Paranoia							.05*	.02	2.44	.14**	.05	2.75
Cross-Level Moderators												
Low power X SES				-.08**	.03	-2.84						

Notes: N (level 1) = 464; *N* (level 2) = 66. Unstandardized coefficients are reported. Level 1 predictors were group-mean centered. Level 2 predictors were grand-mean centered.

*$p < .05$

**$p < .01$

APPENDIX A

Paranoia Scale used in Study 1

1. I feel like the other two participants have it in for me.
2. If the other two participants are nice to me, they must have hidden reasons.
3. I feel like the other two participants may use unfair means to get advantages in the upcoming tasks.
4. I am sure the other two participants will be talking about me behind my back.
5. The other two participants will only be friendly to me when they need something from me.
6. The other two participants won't really care much what happens to me in the upcoming tasks.
7. It is safer not to trust the other two participants.
8. I feel like the other two participants will look at me critically.

All items were measured on a 7-point scale anchored 1 = *strongly disagree* to 7 = *strongly agree*.

APPENDIX B

Sense of Low Power Scale used in Study 3A

1. I cannot get others to listen to what I say.
2. My wishes do not carry a lot of weight.
3. I cannot get others to do what I want.
4. My views would not have a lot of sway.
5. I do not have a great deal of power.
6. My ideas and opinions would get ignored.
7. I would not easily get my way.
8. I do not get to make decisions if I want to.

All items were measured on a 7-point scale anchored 1 = *strongly disagree* to 7 = *strongly agree*.

APPENDIX C

Recall Manipulation used in Study 3B

Low Power Condition

1. Please recall a particular incident in which someone else had power over you. In 2-5 sentences, please describe the situation – what happened, how you felt, etc.
2. Please recall a particular incident in which someone else had authority over you. In 2-5 sentences, please describe the situation – what happened, how you felt, etc.

3. Please recall a particular incident in which someone else had the ability to control some aspect of your life. In 2-5 sentences, please describe the situation – what happened, how you felt, etc.
4. Please recall a particular incident in which someone else (or a group of other people) had the ability to make a decision that affected you. In 2-5 sentences, please describe the situation – what happened, how you felt, etc.
5. Please recall a particular incident in which somebody else (or a group of other people) had the ability to force you to do something. In 2-5 sentences, please describe the situation – what happened, how you felt, etc.

Control Condition

1. Please recall what you had for dinner last night. In 2-5 sentences, describe your meal – what you had, where you ate it, how you felt, etc.
2. Please recall the last time you went to see a movie at the movie theatre. In 2-5 sentences please describe the event – what movie you watched, with whom, what you thought about it, etc.
3. Please recall your drive in to work today. In 2-5 sentences please describe the experience – traffic, how long it took, how you felt about it, etc.
4. Please recall the last activity you did before you went to sleep last night. In 2-5 sentences please describe the activity – what you did, how you felt, etc.
5. Please recall the most recent online purchase that you made. In 2-5 sentences please describe the purchase – what you got, what you thought about it, etc.