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Running head: POWER AND SOCIAL EXCLUSION

Power Motivates Interpersonal Connection Following Social Exclusion

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Abstract

Research has systematically documented the negative effects of social exclusion, yet little is known about how these negative effects can be mitigated. Building on the approach-inhibition theory of power (Keltner, Gruenfeld & Anderson, 2003), we examined the role of power in facilitating social connection following exclusion. Four experiments found that following exclusion, high power (relative to low power) individuals intend to socially connect more with others. Specifically, following exclusion, individuals primed with high power sought new social connections more than those primed with low power (Studies 1 to 4) or those receiving no power prime (Study 1). The intention to seek social connection as a function of power was limited to situations of exclusion, as it did not occur when individuals were included (Studies 3 and 4). Approach orientation mediates the effect of power on intentions to connect with others (Studies 2 and 4).

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Keywords: power, social exclusion, ostracism

Establishing and maintaining a sense of social connection with others is a universal and fundamental human need akin to that for food and water (Baumeister & Leary, 1995). Exclusion from social groups thwarts this need and affects individuals' physical and psychological well-being (see Baumeister & Leary, 1995; Williams, 2007). In fact, social exclusion (hereafter exclusion) has been described as one of the most severe punishments people can mete out to each other. As William James (1890; pp. 293-294) remarked - "No more a fiendish punishment could be devised, were such a thing physically possible, than that one should be turned loose in society and remain absolutely unnoticed by all the members thereof." Although exclusion is so damaging, organizational behavior scholars have only recently begun to examine this aversive interpersonal phenomenon (Ferris, Brown, Berry, & Lian, 2008).

The experience of exclusion indicates that one's need to belong has been thwarted (Baumeister, Brewer, Tice, & Twenge, 2007). As a result, excluded individuals should have a strong desire to regain social connections with others in order to fulfill the fundamental need to belong (Leary, Tambor, Terdal, & Downs, 1995; MacDonald & Leary, 2005). Despite the functionality of seeking social connections to meet the need to belong, people may not always appear to do so. For example, excluded individuals sometimes isolate themselves from further social interactions (Derfler-Rozin, Thau, & Pillutla, 2010; Mead & Maner, 2012). Therefore, although the need to belong is fundamental, individuals may not always behave in a manner that directly meets this need.

Indeed, there is evidence to suggest that excluded individuals sometimes further isolate themselves from social connections (see Baumeister et al., 2007, for a review;

Ferris et al., 2008; Leary, Twenge, & Quinlivan, 2006; Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007). For example, exclusion has been shown to increase anti-social behavior (Leary et al., 2006) and decrease pro-social behavior towards others (Twenge et al., 2007), indicating that excluded individuals may further distance themselves from others. However, there are other studies that suggest that following exclusion, people may engage in actions to regain social connections (Carter-Sowell, Chen, & Williams, 2008; Williams, 2007; Williams & Govan, 2005). For example, excluded individuals show a greater motivation to connect with new sources of social connections as compared to non-excluded individuals (Maner, DeWall, Baumeister, & Schaller, 2007).

Although these two sets of findings - socially distancing oneself from others and seeking new social connections – may seem contradictory, they may signal the same underlying motive. In fact, they point to two different means by which individuals can subjectively experience that their need to belong is met. It is clear that when people engage in actions to regain social connections, they are directly striving to fulfill their need to belong, or at least feel that they are doing so. It is less apparent how people feel that they are meeting their need to belong when they socially withdraw following exclusion. However, social withdrawal minimizes vulnerability to additional exclusion, which can further threaten individuals who have experienced prior exclusion (Baumeister et al., 2007). Therefore, social withdrawal following exclusion may also be an attempt for people to feel that they are at least preserving the need to belong.

The two responses to exclusion – actively seeking social connection and avoiding situations that might involve further exclusion – align with the two self-regulation

systems proposed by Higgins (Higgins, 1997, 1998). Specifically, actively striving to socially connect and build new ties aligns with a promotion focus that is driven by the potential for attaining positive outcomes (Higgins, Roney, Crowe, & Hymes, 1994; Shah, Higgins & Friedman, 1998). Whereas, socially withdrawing and avoiding further harm aligns with a prevention focus that is driven by the potential for avoiding negative outcomes (Higgins et al., 1994; Shah et al., 1998). Following exclusion, people can engage in either of these means to feel that they are meeting or at least preserving their need to belong and both these means – promotion-focused and prevention-focused - should be activated. However, which of the two is predominant depends on chronic and environmental factors. The current research examines how power determines which of the two means will predominate to influence the intention to connect following exclusion.

Power and Social Exclusion

A dominant model in the study of the effects of power is the approach-inhibition model (Keltner, Gruenfeld, & Anderson, 2003). This model outlines the effects of power - an inherent and important property of social relationships, on affect, cognition, and behavior. In this model, power is defined as the capacity to influence others by having control over resources (French & Raven, 1959; Emerson, 1962). This control over resources provides high power actors with the discretion to administer rewards and punishments. This definition of power is inherently social where power is derived through one's relationship to others (Fiske, 1993; Overbeck & Park, 2001). Our conceptualization and definition of power provides the foundation for the current investigation of how power affects the intention to connect following exclusion.

According to the approach-inhibition model, the experience of power engenders an approach-oriented motivational state, whereas a lack of power engenders an avoidance-oriented motivational state (Keltner et al., 2003). Specifically, high power individuals display approach-oriented behaviors, behavioral disinhibition, and elevated positive emotion (e.g., Guinote, 2007a; Guinote, 2007b; see Keltner et al., 2003). These behaviors have been broadly termed as an approach orientation - active behaviors that engage with others and the environment (Carver & White, 1994; Higgins, 1997). The approach-inhibition model has received strong empirical support (e.g. Anderson & Berdahl, 2002; Lammers, Stoker, & Stapel, 2010; Smith & Bargh, 2008). Furthermore, this theory predicts that powerful actors are more likely to take risks (Anderson & Galinsky, 2006; Maner, Gailliot, Butz, & Peruche, 2007), take actions to improve their circumstances (Galinsky, Gruenfeld, & Magee, 2003) and make the first move in competitive interactions (Magee, Galinsky, & Gruenfeld, 2007).

As mentioned earlier, following exclusion, individuals may feel that their need to belong is met through either promotion or prevention means. Due to the alignment between power and the two self-regulatory systems, we propose that power determines which of the two means would predominate. Specifically, approach orientation, engendered by power, is conceptually similar to a promotion focus, and an avoidance orientation, engendered by a lack of power, is conceptually similar to a prevention focus (Keltner et al., 2003). We use regulatory fit theory (Higgins, 2000) to examine how the alignment between power and the two means affects the intention to connect following exclusion.

Regulatory fit theory proposes that an alignment between the motivational orientation to a goal and the means used to attain the goal creates a state of regulatory fit that increases the feeling of rightness about goal pursuit (Higgins, 2000, 2005). Building on this theory, following exclusion of high power actors, an alignment between promotion means and an approach orientation produces a state of regulatory fit. As a result of this fit, for high power actors, promotion means feel more “right” than prevention means. In other words, for high power individuals, the intention to connect is more dominant than the fear of further exclusion. This leads to a greater intention to connect with others following exclusion. In contrast, for low power actors, an alignment between prevention means and an avoidance orientation also produces a state of regulatory fit. As a result of this regulatory fit, for low power actors, prevention means feel more “right” than promotion means. Therefore, for low power individuals, the fear of further exclusion is more dominant, which leads to a lower intention to connect following exclusion.

Furthermore, power creates an inclination toward taking action (Galinsky, Gruenfeld & Magee, 2003; Guinote, Judd, & Brauer, 2002). Following exclusion, there are two means available to make people feel that they belong, that vary in the amount of action involved in their enactment— to socially connect or to socially withdraw. Specifically, seeking new social connections involves more action than does social withdrawal. Since high power actors actively strive to improve their situations, they may be more likely to seek social connections following exclusion. Thus, taken together, an alignment of power with promotion means and the inclination power creates toward

taking action suggest that high power individuals are likely to seek social connections following exclusion.

On the other hand, low power individuals display avoidance-oriented behaviors, behavioral inhibition, and negative emotion (Keltner et al., 2003). Thus relative to high power individuals, low power individuals are more likely to engage in prevention means to preserve their need to belong. Furthermore, when low power actors are excluded, they are less likely to initiate action to change their undesirable predicament. Consequently when low power individuals are excluded, they are more likely to socially withdraw and thereby display a lower intention to connect with potential new affiliates.

Overview of Studies

We conducted four studies to test the effects of power on the intention to connect with others following exclusion. In Study 1, high power, low power, and control participants were excluded in the context of an online ball-tossing game called Cyberball (Williams & Jarvis, 2006) and they then indicated their intention to connect with others. Study 2 used the group exclusion paradigm (Leary et al., 1995) and assessed intentions to connect with others following exclusion. This study also examined approach versus avoidance as the mechanism underlying the effects of power on intention to connect. Study 3 examined whether the effects of power on intentions to connect are specific to conditions of exclusion, where high power and low power participants were randomly assigned to be excluded or not in the Cyberball game. Study 4 again tested approach versus avoidance as the mediator, again using the group exclusion paradigm but including a behavioral measure of the intention to connect.

Study 1

Study 1 examined whether having power leads people to show a greater intention to connect following exclusion. Participants completed commonly used experiential power primes (Galinsky et al., 2003) in which they were asked to recall a particular incident in their lives. All participants experienced exclusion in a game of Cyberball, a virtual ball-tossing paradigm in which they are ostensibly repeatedly excluded from the game (Williams & Jarvis, 2006). Intention to connect with others was the dependent variable.

Method

Participants and Design

Participants were 45 male undergraduates who participated for course credit. They were randomly assigned to one of three between-participant conditions: high power, low power and control. All participants were excluded.

Procedure

Participants were invited to the behavioral research laboratory in a business school and told that they would be taking part in an online social interaction study. Prior to the social interaction study, participants completed experiential primes in which they were asked to recall an incident in their lives. These experiential primes have been shown to reliably manipulate a sense of power (Galinsky et al., 2003). Participants assigned to the high power condition were instructed to write about a personal incident in which they had power over another person. Those assigned to the low power condition were instructed to recall an incident in which someone else had power over them. In the

control condition, participants were instructed to recall and write about their previous day.

After completing the power prime, participants were told that they would be playing an online ball-tossing game called Cyberball with three other players in the same experimental session, and to visualize playing ball toss with these other players. In reality, they were playing against a program that was designed to pass the ball to them a fixed number of times. Cyberball has been shown to effectively elicit feelings of exclusion (e.g., Williams, Cheung, & Choi, 2000; van Beest & Williams, 2006; Zadro, Boland, & Richardson, 2006; see Williams & Jarvis, 2006). Participants could throw the ball to any of the three players, and were led to believe that the other players could do the same as well. All participants received the exclusion manipulation in which they received two throws at the beginning of the game, after which the other players stopped throwing to them. The program terminated after 20 throws, and then participants completed the measures.

Measures

Following the Cyberball game, participants completed a control variable scale as a filler task. Next, they completed the dependent measure of interest, a social connection scale, which measures intention to connect with others and was adapted from an existing instrument (Maner et al., 2007). Participants read a short paragraph about a student service called [name of university]Connect – and reported the degree to which they would be interested in using the service to make new friends. Specifically, participants responded to ten items assessing their interest in meeting people via the student service (e.g., “I have a strong interest in meeting new friends,” “Connecting with [name of

university] students is important to me.”). The items were anchored on a 12-point Likert scale (1 = *strongly disagree* to 12 = *strongly agree*) and the responses were averaged to provide an intention to connect with others score ($\alpha=.94$). After completing this measure, participants were debriefed and received course credit for participation. None of the participants expressed any suspicion regarding any aspect of the study.

To control for possible effects of the power manipulation on mood, participants completed the mood valence subscale (e.g., “content”, “happy”) ($\alpha=.90$) of the Brief Mood Inspection Scale (BMIS) (Mayer & Gaschke, 1988), which is a mood adjective scale. This served as the filler task mentioned earlier. Participants responded to each item in terms of how they felt at the present moment. The scale consisted of eight items that are anchored on a 7-point Likert Scale (1 = *definitely do not feel* to 7 = *definitely feel*).

Results and Discussion

We conducted a single factor (power: high power/low power/control) between-participants Analysis of Variance (ANOVA) on intention to connect with others. As predicted, there was a significant effect of power on the intention to connect, $F(2, 42) = 5.48, p < .01, \eta_p^2 = .21$. Specifically, high power participants ($M = 8.85, SD = 1.84$) showed a significantly greater intention to connect with others than low power participants ($M = 6.40, SD = 2.38$), $t(42) = 3.07, p < .01$, and control participants ($M = 6.82, SD = 2.10$), $t(42) = 2.67, p < .05, d = 1.15$. There was no significant difference in intention to connect with others between low power participants and control participants, $t(29) = -.52, p = .61$.

We also submitted the scores on the mood valence subscale to a one-way ANOVA, and results indicated that there was no significant difference across the three

conditions on the mood valence scores, $F(2, 42) = 1.80, p = .18$. Thus, there is no evidence that changes in mood can account for the greater intention to connect with others. Overall, these findings suggest that high power individuals display a greater intention to connect with others after they have been excluded as compared to low power individuals.

Study 2

The primary purpose of Study 2 was to examine the psychological mechanism underlying the effects of Study 1. In addition, Study 2 examined how the effects of power affect intention to connect with others with a different manipulation of exclusion that involved face-to-face interactions rather than an online game. As elaborated earlier, the reason power leads to the effect observed in Study 1 - a greater intention to connect with others - may primarily be the approach orientation that power activates (Keltner et al., 2003). Specifically, we predicted that high power individuals would be more likely than low power individuals to seek interpersonal connection following social exclusion, and that this effect would be mediated by an increased approach orientation.

Method

Pilot Study

The pilot study involved development and validation of an approach orientation scale to be used in Study 2. Participants were told that the aim of the research was to examine the effects of muscle tension on thinking and judgment and that they would perform an exercise while filling in questionnaires.

We manipulated approach-avoidance using an established manipulation which involves arm flexion and extension (Cacioppo, Priester, & Berntson, 1993). Classic

research on conditioning of human attitudes (Zanna, Kiesler, & Pilkonis, 1970) suggests that arm extension is usually coupled with an aversive object and arm flexion is more likely to be coupled with the acquisition of a desired object. The repeated pairing of these somatic actions and object evaluations throughout life leads to an association of arm flexion-approach and arm extension-avoid (Cacioppo et al., 1993). Thus, the flexion motion activates an approach orientation and the extension activates an avoidance orientation.

In the *flexion condition (approach)*, participants were instructed to hold a stress ball with their non-dominant hand and press the ball against the bottom of the table. They were then instructed to lift the ball lightly against the table so that they feel a slight tension in their arms and were told to maintain that tension during the course of the exercise. In the *extension condition (avoidance)*, participants held a stress ball with their non-dominant hand and pressed the ball against the top of the table. They were then instructed to press the ball lightly against the table so that they feel a slight tension in their arms and were told to maintain that tension. All participants were instructed to maintain the stress balls in their positions for around two to three minutes.

While holding the stress ball in their respective positions, participants responded to a semantic differential scale, in which they were asked to indicate their preference for ten pairs of approach-avoidance related words on a 7-point scale (-3 to 3) (i.e. *inhibition to approach, defense to offence, flight to fight, passive to active, withdraw to engage, back to forward, implode to explode, stillness to moving, avoid to approach, fear to anger*). We averaged participants' responses to create an approach orientation measure ($\alpha = .82$). The higher the score, the greater the approach orientation. They also completed

the mood valence subscale ($\alpha=.77$) of the Brief Mood Inspection Scale (BMIS) scale as in Study 1.

Results showed that participants in the *flexion condition* scored significantly higher on the approach orientation scale ($M = .77, SD = 1.04$) than participants in the *extension condition* ($M = .20, SD = .91$), $t(49) = -2.06, p = .04, d = .58$, suggesting that this approach orientation measure is a valid measure of approach tendencies. In addition, the flexion versus extension manipulation did not influence mood, $t(49) = 1.30, p = .20$ and mood was not correlated with the approach orientation measure, $r (N=50) = .17, p = .25$. Thus, we used this approach orientation measure in Study 2 and also subsequently in Study 4.

Participants and Design

For the main study, participants were 38 undergraduate students (23 men and 15 women) who participated for course credit. Participant gender did not influence any of the outcomes of interest, so we did not include it in subsequent analyses. Participants were randomly assigned to one of two between-participant conditions: high power vs. low power. All participants were excluded.

Procedure

Participants arrived at the laboratory and learned that they would first be interacting with others in the same study session, and then they would complete other tasks (Leary et al., 1995). Participants met in groups of three or four and were asked to indicate their preferences for group members. They chose either one or two interaction partners, depending on whether they had three or four members in the session respectively. While waiting for the outcome of the member preference exercise,

participants completed the power manipulation, the narrative essay task used in Study 1 in which they recalled a personal experience where they had power over another person (high power) or another person had power over them (low power). After the power prime, the experimenter excluded all participants by saying: “I hate to tell you this, but nobody chose you as someone they wanted to work with.”

Next, participants completed the mood valence subscale ($\alpha=.80$) of the Brief Mood Inspection Scale, as in Study 1. Participants then completed the 10-item approach orientation scale (see pilot; in this sample, $\alpha=.78$). Finally, participants completed the same intention to connect scale used in Study 1 ($\alpha=.94$). After completing the study, participants were probed for suspicion before being debriefed and dismissed. None of the participants expressed any suspicion.

Results and Discussion

Replicating the results of Study 1, high power participants expressed a significantly greater intention to connect with others ($M = 8.17, SD = 1.92$) than low power participants ($M = 6.83, SD = 1.65$), $t(37) = 2.27, p < .05, \eta_p^2 = .13$. There was no significant difference between the high power and low power groups in terms of their reported mood valence, $t(37) = .82, p = .42$.

<Insert Figure 1 about here>

Approach Orientation as the Mediator

High power individuals displayed a greater approach orientation ($M = .97, SD = .74$) than low power individuals ($M = .43, SD = .68$), $t(36) = 2.32, p < .05, d = .76$. We then tested for mediation by regressing both power and approach orientation on intention to connect. Approach orientation predicted intention to connect ($b = 1.47, SE = .35, p <$

.001), but power was no longer significant ($b = .63$, $SE = .55$, $p = .26$) (see Figure 1). We tested the overall significance of the indirect effect (i.e., the path through the mediator) using a 5,000 bootstrap samples procedure (see Preacher & Hayes, 2008) and the analysis yielded a bootstrap 95% bias-corrected interval of (.11 to 1.69). This interval does not contain zero, suggesting that approach orientation mediates the link between power and intention to connect.

Study 3

The previous study showed that power increases individuals' intention to connect with others following exclusion and that this effect is mediated by approach orientation. However, as all participants in the first two studies were excluded, it remains unclear whether the effects of power on intention to connect are specific to exclusion.

On the one hand, given that power engenders an approach orientation, it is possible that high power actors intend to connect with others more than low power actors, regardless of whether they are excluded or not. This could be particularly true because as mentioned previously, the need to belong is fundamental (Baumeister & Leary, 1995). On the other hand, high power actors are likely to engage in approach-oriented behaviors to achieve specific goals relevant to their environment (Keltner et al., 2003). Given that social connection is a more relevant goal when people are excluded than when they are not (Leary et al., 1995), we argue that high power actors would focus their approach-oriented behaviors on social connection only when they are excluded.

When individuals are confronted with evidence that a need, such as the need to belong, might be at risk of not being met, their attention is focused on meeting this need relative to other needs (Leary et al., 1995). Although fundamental human needs must be

met, attention is particularly focused on the specific need that is at risk of not being met at any given moment in time. Just as being in a situation where food is not readily available activates the goal of acquiring food, being excluded activates the goal of social connection. As a result, the goal of social connection may not be activated when high power individuals are not excluded. Thus, even though power may psychologically equip people with resources to achieve goal-directed pursuit, they will not focus them toward the goal of social connection when they have not been excluded because there is little reason to do so (DeWall, Baumeister, Mead & Vohs, 2011). In other words, high power actors should not show an increased intention to connect with others if they have not been excluded.

In sum, we suggest that high power actors display a greater intention to connect only when they are excluded. To test this prediction, Study 3 examines the effects of power on intention to connect in both exclusion and inclusion conditions.

Method

Participants and Design

Participants were 115 undergraduates (62 men and 53 women) who participated for course credit. Study 3 had a 2(power: high vs. low) X 2(social feedback: exclusion vs. inclusion) between-participant factorial design.

Procedure and Measures

Participants were randomly assigned to complete high power primes or low power primes as in Studies 1 and 2. After completing the power prime, participants learned that they would play an online ball-tossing game called Cyberball with three other players in the same experimental session and to visualize tossing the ball with these other players.

As in Study 1, in the exclusion condition, participants received two throws at the beginning of the game, after which the other players stopped throwing to them. In the inclusion condition, participants received the same number of throws as the other three players (25% of the time). The program terminated after 20 throws.

Participants then completed a four-item mood measure (bad, unfriendly, sad, angry; $\alpha=.87$), anchored on a 5-point Likert Scale (1 = *not at all* to 5 = *extremely*), framed in terms of how they felt at the present moment. Next, participants completed the intention to connect with others scale as in Studies 1 and 2 ($\alpha=.95$). Upon completion of the study, participants were debriefed before they were dismissed. No participant expressed any suspicion regarding any aspect of the study.

Results and Discussion

A 2(high power vs. low power) X 2(exclusion vs. inclusion) between-participant ANOVA on the intention to connect with others revealed a significant main effect of power, $F(1, 114) = 12.34, p < .05, \eta_p^2 = .04$. Consistent with our prediction and replicating results from the earlier studies, the high power group ($M = 7.52, SD = 2.34$) displayed a greater intention to connect with others than the low power group ($M = 6.68, SD = 2.16$), $t(113) = -2.01, p = .05, d = .37$. There was no main effect of social feedback, $F(1, 114) = .84, p = .36$.

<Insert Figure 2 about here>

Social feedback moderated the effect of power on intention to connect, $F(1, 115) = 3.99, p < .05, \eta_p^2 = .03$, such that power led to a greater intention to connect only when participants were excluded. Among the excluded participants, high power actors ($M = 8.10, SD = 2.42$) showed a greater intention to connect relative to the low power actors

($M = 6.45$, $SD = 2.08$), $t(56) = -2.78$, $p < .01$, $d = .73$. Additionally, among the high power individuals, those who were excluded ($M = 8.10$, $SD = 2.42$) showed a greater intention to connect than those who were not excluded ($M = 6.90$, $SD = 2.12$), $t(56) = -2.01$, $p = .05$, $d = .53$ (see Figure 2). However, among the low power actors, there were no differences in the intention to connect between the excluded group ($M = 6.45$, $SD = 2.08$) and the included group ($M = 6.90$, $SD = 2.24$), $t(56) = .79$, $p = .44$. There were no effects of manipulations on the mood scores, F 's < 2.80 , p 's $> .10$, suggesting that mood effects are not involved in this process.

Study 3 replicated the primary findings from previous studies that following exclusion, high power individuals sought more social connection than low power individuals. Furthermore, high power individuals showed a greater intention to connect with others when they were excluded than when they were included. This pattern was not observed in the low power condition. This finding demonstrates that the effect of power on the intention to connect is specific to situations of exclusion, because in the inclusion condition, power did not influence the intention to connect with others. This suggests that exclusion episodes provide the impetus for high power individuals to regain social connection.

Study 4

Study 4 sought to replicate the findings of the first three studies with a behavioral dependent measure. The first three studies utilized individuals' behavioral intentions as the dependent variable. Thus, it remains unclear whether the effects would translate to actual behavior. To clarify this, we used a measure with actual economic consequences to measure the intention to connect. Participants were asked if they wanted to contribute

money from their participation payment to a social event hosted by a student service. Thus, Study 4 provides a more stringent test with a behavioral measure rather than mere intentions.

Consistent with the findings of prior studies, we predicted that in comparison to low power individuals, high power individuals would display a greater intention to connect only when they are excluded, but not when they are included. To include tests of all predictions, we used a moderated mediation model in which high power leads to a greater approach orientation than low power, and this approach orientation in turn leads to increased intention to connect only following exclusion, but not inclusion. This model is consistent with our thinking about the findings in the previous studies that power activates an approach orientation, and approach orientation only translates into seeking social connections when the need to belong has been activated through exclusion. In other words, we propose that high power activates an approach orientation but approach orientation only predicts the intention to connect when individuals are excluded but not when they are included (second-stage moderation, see Preacher, Rucker, & Hayes, 2007).

Method

Participants and Design

Participants were 88 undergraduates (29 men and 59 women) who were paid \$10 for their time in the experimental session. Study 4 had a 2(power: high vs. low) X 2(social feedback: exclusion vs. inclusion) between-participants factorial design.

Procedure

The procedures were similar to Study 2, with the same power manipulation as in the previous three studies. Following this, participants were randomly assigned to be

excluded or included using the group exclusion paradigm (Leary et al., 1995). As in Study 2, in the exclusion condition, participants were told the following by the experimenter: “I hate to tell you this, but nobody chose you as someone they wanted to work with.” In the inclusion condition, participants were told the following: “I have good news for you - everyone chose you as someone they’d like to work with.” Following the manipulations, participants completed the mood valence subscale ($\alpha=.84$) of the Brief Mood Inspection Scale as in previous studies. Participants then filled in the 10-item approach-orientation scale developed for Study 2 ($\alpha=.76$).

Participants then read the short description about “[name of university]Connect” as in Studies 1 through 3. In addition, they read that the student committee who proposed the student service connect was planning to host a series of social events. Ostensibly, the student committee was organizing a movie night and the student coordinators required funding to host the event. Participants were asked to indicate the amount of money that they were willing to contribute to this fund (ranging from \$0 to \$5). They were told that the money would be collected from them at the end of the study (when they receive their participant payment, so all participants would have \$10 on hand from which to contribute). The amount of money contributed to the fund was the dependent variable. After completing the study, participants were paid and debriefed before they were dismissed.

Results and Discussion

Amount of money contributed to the fund

A 2(high power vs. low power) X 2(exclusion vs. inclusion) between-participants ANOVA on the amount contributed revealed a significant main effect of power, $F(1, 87)$

= 4.20, $p = .04$, $\eta_p^2 = .05$. Individuals in the high power condition contributed \$1.60 ($SD = .96$) as compared to \$1.13 ($SD = 1.32$) in the low power condition, $t(87) = -1.93$, $p = .06$.

There was no significant main effect of social feedback, $F(1, 87) = 2.84$, $p = .10$.

<Insert Figure 3 about here>

Most importantly, social feedback moderated the effect of power on the behavioral measure of the intention to connect, $F(1, 87) = 6.77$, $p = .01$, $\eta_p^2 = .08$. Among the excluded group, high power individuals contributed more money ($M = \$2.11$, $SD = .82$) than low power individuals ($M = \$1.03$, $SD = 1.52$), $t(42) = -2.98$, $p = .03$, $d = .88$. Similarly, among the high power actors, those who were excluded ($M = \$2.11$, $SD = .82$) contributed more money than those who were included ($M = \$1.11$, $SD = .83$), $t(43) = -4.11$, $p < .001$, $d = 1.21$ (see Figure 3). However, among the low power actors, the amount of money contributed did not differ between exclusion ($M = \$1.03$, $SD = 1.52$) and the inclusion conditions ($M = \$1.24$, $SD = 1.10$), $t(41) = .53$, $p = .60$. There were no effects of manipulations on the mood valence scores, $F's < .59$, $p's > .44$.

Approach Orientation and Intention to Connect

We predicted that among the exclusion group, those in the high power condition would display a greater approach orientation than those in the low power condition. We tested this prediction in a 2(high power vs. low power) X 2(exclusion vs. inclusion) ANOVA. The main effect of power was significant, $F(1, 87) = 12.5$, $p = .001$, $\eta_p^2 = .13$. The two-way interaction was not significant, $F(1, 87) = 2.16$, $p = .10$.

We also predicted that approach orientation would mediate the relationship between power and the intention to connect, with the effect of approach orientation on the intention to connect moderated by social feedback. Regression analysis revealed a

significant interaction between approach orientation and social feedback on intention to connect, ($b = .89$, $SE = .22$, $p < .001$).

<Insert Figure 4 about here>

To confirm that approach orientation mediates the effect of power on the intention to connect when individuals are excluded but not when individuals are included, bootstrap confidence intervals for this conditional indirect effect were obtained (Preacher, et al., 2007; SPSS macro). We used a bootstrap procedure with 5,000 bootstrap samples (Shrout & Bolger, 2002), first setting the value of the moderator at 1 (mediation during exclusion). The analyses yielded a bootstrap 95% bias-corrected interval (.09, .83), suggesting that approach orientation mediated the link between power and the intention to connect when individuals were excluded. When the value of the moderator was 0 (mediation during inclusion), the analyses yielded a bootstrap 95% bias-corrected value of (-.25, .23), suggesting that when individuals were included, there was no mediation. Figure 4 outlines the simple paths and effects with social feedback (exclusion vs. inclusion) as the moderating variable.

Using a behavioral dependent measure, Study 4 replicated the primary findings of the first three studies. Replicating the mediation results of Study 2, Study 4 also showed that approach orientation mediates the link between power and the intention to connect with others for the exclusion group only.

General Discussion

Research has systematically documented the negative effects of exclusion, yet surprisingly little work has examined ways in which people react to exclusion in an effort to manage these negative effects. Building on the approach-inhibition theory of power

(Keltner et al., 2003), we examined the role of power in enabling people to gain social connection following exclusion. Across four studies, we found that high power individuals show a greater intention to connect with new potential affiliates compared to low power individuals. We also found that approach orientation mediates the relationship between power and intention to connect with others following exclusion. Finally, although high power activates an approach orientation, approach orientation only leads to the intention to connect when individuals are excluded, but not otherwise.

When people are excluded, they may respond by either socially connecting or socially withdrawing to facilitate the subjective experience of belonging (Baumeister et al., 2007). Whereas actively striving to socially connect aligns with a promotion focus, socially withdrawing and avoiding further harm aligns with a prevention focus. Following exclusion, both promotion and prevention systems should be activated, and the present research suggests that power determines which of the two regulatory systems predominates.

We used regulatory fit theory (Higgins, 2000) to examine how power may result in a greater intention to connect following exclusion. For high power actors, there is a regulatory fit between approach orientation and promotion means. As a result, they are likely to use *eager strategic means* of goal attainment to ensure the presence of positive outcomes (Cesario, Higgins, & Scholer, 2008). This may lead to a greater intention to connect following exclusion. In contrast, for low power actors, there is a regulatory fit between avoidance orientation and prevention means. As a result, they are likely to use *vigilante strategic means* of goal attainment to ensure the absence of negative outcomes

(Cesario et al., 2008). Our findings show that power determines whether social connection or social withdrawal will ensue following exclusion.

Power Facilitates Adaptive Behavior

Although a prevalent view in the literature is that power tends to make people self-focused at the expense of others (Kipnis, 1972; Galinsky, Magee, Inesi, & Gruenfeld, 2006), our findings suggest that the self-serving nature of power may result in an adaptive response. In line with this thinking, a recent study found that power enhances subjective well-being (Kifer, Heller, Perunovic, & Galinsky, 2013). One of the primary determinants of subjective well-being is a sense of belongingness (see Uchino, 2009 for a review) and research has also shown that exclusion decreases subjective well-being (Baumeister & Leary, 1995; Williams, 2007). Although we only examined intentions to connect, to the extent that these intentions lead to actual connection, power may enhance subjective well-being.

At first glance, our results may seem to be at odds with the finding that power leads to greater social distance due to increased feelings of self-sufficiency (Lammers, Galinsky, Gordijn, & Otten, 2012). This finding points to the possibility that the powerful may not require social connections as they already feel self-sufficient. However upon careful analysis, it becomes clear that in the aforementioned studies, the source of the social distancing is different from that in our research. Specifically, exclusion is a negative social experience in which others have volitionally distanced high power actors, whereas the social distance investigated by Lammers et al. (2012) originates from the powerful individuals themselves. Our results show that when high power individuals are excluded by others, they seek to reduce this social distance by seeking social connections,

suggesting that power only leads to social distancing when the powerful initiate the distancing. Indeed, this is consistent with prior evidence that the powerful are particularly able to act in ways that improve their situations (e.g., Guinote, 2007b).

Being excluded by others represents a loss of affiliates - a form of power loss. Keltner and colleagues (2008) proposed that power is inherently social where low power actors have to reciprocally afford power to high power actors. Hence, high power actors may face the risk of being excluded which may result in a loss of power. Consistent with this observation, recent research finds that high power actors who hold overly positive perceptions of their relationships with others are excluded more frequently from alliances, resulting in power loss (Brion & Anderson, 2013). However, following such a loss on account of exclusion, high power actors may be more likely to behave adaptively by seeking social connections and thereby regain their power.

Future Research Directions

Although high power individuals display a greater intention to connect with others following exclusion, it remains unclear if the intention to connect extends to the specific perpetrators who have excluded them. Excluded individuals may still hold negative attitudes toward the specific perpetrators who rejected them (Maner et al., 2007). Reconnecting with them may be more threatening than connecting with new affiliates. This is because there is a relatively higher likelihood of being excluded again by the specific perpetrators than by new affiliates. Given this possibility, elevated power may not be sufficient for excluded individuals to overcome the fear of being further excluded by the same perpetrator who excluded them previously. Consistent with our thinking that power facilitates an adaptive response following exclusion, it may be that in

modern urban social contexts where there are bountiful opportunities for social connection, it may be more functional to seek new social affiliates. Future studies should explore whether high power individuals seek social connection with the individuals who have previously excluded them.

In our studies, we found that power leads to a greater intention to connect following exclusion. Nonetheless, it is not clear if this intention to connect is of a benevolent or a malevolent nature. Past research has shown that power can lead people to act either benevolently or malevolently depending on their relationship orientation. In particular, Chen, Chai and Bargh (2001) reported that individuals with an “exchange” orientation associate power with self-interest goals, whereas individuals with a “communal” orientation associate power with socially responsible goals. This suggests that high power actors may approach new potential affiliates with either benevolent or malevolent intentions depending on factors such as relationship orientation and other potential moderators. For example, high power actors who are narcissistic may perceive exclusion as a form of ego threat and choose to connect with others with malevolent intentions. Consistent with this argument, past research has shown that narcissism is associated with increased aggressive responses following exclusion (Twenge & Campbell, 2003) and power may increase such aggression. Thus, we encourage research designed to disentangle the nature of the intention to connect.

Future research could also examine potential moderators of the effect of power on intention to connect following exclusion. For example, one factor that may alter these effects is the need to belong (Baumeister & Leary, 1995). Individuals with a relatively high need to belong have a greater need for acceptance from others and they tend to

experience stronger negative affective reactions to being socially excluded (Pickett, Gardner, & Knowles, 2004). Thus, it seems that individuals with a relatively high need to belong should be inherently more motivated to build new social bonds when they have been excluded. This brings into question whether power facilitates actions that lead to a greater intention to connect equivalently across levels of the need to belong. Future studies can explore whether the need to belong or other relational factors moderate the effects observed in our studies.

Conclusion

Power is inherently a social phenomenon, with its experience embedded in interpersonal relationships. Thus, it is not surprising that the experience of power affects how people respond when they have been excluded. The present research examined the role of power in facilitating intentions to socially connect following exclusion. Four studies showed that following exclusion, high power individuals display a greater intention to connect than low power individuals. Furthermore, approach orientation mediated the relationship between power and intention to connect with others. Given the aversive nature of social exclusion, it is important to examine adaptive ways to cope with being excluded. The present research shows that when excluded, power enables such an adaptive response.

References

- 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*, 1362- 1377.
- Anderson, C., & Galinsky, A. D. (2006). Power, optimism, and risk-taking. *European Journal of Social Psychology*, *36*, 511-536.
- Baumeister, R. F., Brewer, L. E., Tice, D. M., & Twenge, J. M. (2007). Thwarting the need to belong: Understanding the interpersonal and inner effects of social exclusion. *Social and Personality Psychology Compass*, *1*, 506-520.
- Baumeister, R. F., & Leary, M. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, *117*, 497-529.
- Brion, S., & Anderson, C. (2013). The loss of power: How illusions of alliance contribute to powerholder's downfall. *Organizational Behavior and Human Decision Processes*, *121*, 129-139.
- Cacioppo, J. T., Priester, J. R., & Berntson, G. G. (1993). Rudimentary determinants of attitudes. II: Arm flexion and extension have differential effects on attitudes. *Journal of Personality and Social Psychology*, *65*, 5-17.
- Carter-Sowell, A. R., Chen, Z., & Williams, K. D. (2008). Ostracism increases social susceptibility. *Social Influence*, *3*, 143-153.
- Carver, C. S., & White, T. L. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS Scales. *Journal of Personality and Social psychology*, *67*, 319-333.

- Cesario, J., Higgins, E. T., & Scholer, A. A. (2008). Regulatory fit and persuasion: Basic principles and remaining questions. *Social and Personality Psychology Compass*, 2, 444-463.
- Chen, S., Chai, L., & Bargh, J. A. (2001). Relationship orientation as a moderator of the effects of social power. *Journal of Personality and Social Psychology*, 80, 173-187.
- Derfler-Rozin, R., Pillutla, M., & Thau, S. (2010). Social reconnection revisited: The effects of social exclusion risk on reciprocity, trust, and general risk-taking. *Organizational Behavior and Human Decision Processes*, 112, 140-150.
- DeWall, C. N., Baumeister, R. F., Mead, N. L., & Vohs, K. D. (2011). How leaders self-regulate their task performance: Evidence that power promotes diligence, depletion, and disdain. *Journal of Personality and Social Psychology*, 100, 47-65.
- Emerson, R. E. (1962). Power-dependence relations. *American Sociological Review*, 27, 31-41.
- Fast, N. J., & Chen, S. (2009). When the boss feels inadequate: Power, incompetence, and aggression. *Psychological Science*, 20, 1406-1413.
- Ferris, D.L., Brown, D.J., Berry, J.W., & Lian, H. (2008). The development and validation of the workplace ostracism scale. *Journal of Applied Psychology*, 93, 1348-1366.
- Fiske, S. T. (1993). Controlling other people: The impact of power on stereotyping. *American Psychologist*, 48, 621-628.

- French, J., & Raven, B. (1959). The bases of social power. In D. Cartwright (Ed.), *Studies in social power* (pp.150-167). Ann Arbor, MI: Institute for Social Research.
- Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. (2003). From power to action. *Journal of Personality and Social Psychology*, *85*, 453-466.
- Galinsky, A. D., Magee, J. C., Inesi, M. E., & Gruenfeld, D. H. (2006). Power and perspectives not taken. *Psychological Science*, *17*, 1068-1074.
- Gardner, W. L., Pickett, C. L., Jefferis, V., & Knowles, M. (2005). On the outside looking in: Loneliness and social monitoring. *Personality and Social Psychology Bulletin*, *31*, 1549-1560.
- Guinote, A. (2007a). Power affects basic cognition: Increased attentional inhibition and flexibility. *Journal of Experimental Social Psychology*, *43*, 685-697.
- Guinote, A. (2007b). Power and goal pursuit. *Personality and Social Psychology Bulletin*, *33*, 1076-1087.
- Guinote, A., Judd, C. M., & Brauer, M. (2002). Effects of power on perceived on objective group variability: Evidence that more powerful groups are more variable. *Journal of Personality and Social Psychology*, *82*, 708-721.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American psychologist*, *52*, 1280-1300.
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. *Advances in experimental social psychology*, *30*, 1-46.
- Higgins, E. T. (2000). Making a good decision: value from fit. *American Psychologist*, *55*, 1217-1230.

- Higgins, E. T. (2005). Value from regulatory fit. *Current Directions in Psychological Science, 14*, 209-213.
- Higgins, E. T., Roney, C. J., Crowe, E., & Hymes, C. (1994). Ideal versus ought predilections for approach and avoidance distinct self-regulatory systems. *Journal of Personality and Social Psychology, 66*, 276.
- James, W. (1890). *The principles of psychology* (Vol. 2). New York: Holt.
- Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review, 110*, 265-284.
- Keltner, D., Van Kleef, G. A., Chen, S., & Kraus, M. W. (2008). A reciprocal influence model of social power: Emerging principles and lines of inquiry. *Advances in Experimental Social Psychology, 40*, 151-192.
- Kifer, Y., Heller, D., Perunovic, W. Q. E., Galinsky, A. D. (2013). The good life of the powerful: The experience of power and authenticity enhances subjective well-being. *Psychological Science, 24*, 280-288.
- Kipnis, D. (1972). Does power corrupt?. *Journal of Personality and Social Psychology, 24*, 33-41.
- Lammers, J., Galinsky, A. D., Gordijn, E. H., & Otten, S. (2012). Power increases social distance. *Social Psychological and Personality Science, 3*, 282-290.
- Lammers, J., Stoker, J., & Stapel, D. A. (2010). Power and behavioral approach orientation in existing power relations and the mediating effect of income. *European Journal of Social Psychology, 40*, 543-551.

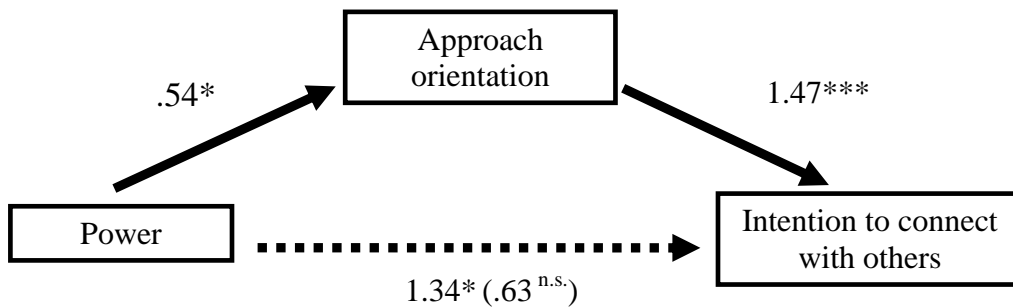
- Leary, M. R., Tambor, E. S., Terdal, S. K., & Downs, D. L. (1995). Self-esteem as an interpersonal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology, 68*, 518-530.
- Leary, M. R., Twenge, J. M., & Quinlivan, E. (2006). Interpersonal rejection as a determinant of anger and aggression. *Personality and Social Psychology Review, 10*, 111-132.
- MacDonald, G., & Leary, M. R. (2005). Why does social exclusion hurt? The relationship between social and physical pain. *Psychological Bulletin, 131*, 202-223.
- Magee, J. C., Galinsky, A. D., & Gruenfeld, D. H. (2007). Power, propensity to negotiate, and moving first in competitive interactions. *Personality and Social Psychology Bulletin, 33*, 200-212.
- Maner, J. K., DeWall, N., Baumeister, R. F., & Schaller, M. (2007). Does social exclusion motivate interpersonal reconnection? Resolving the “porcupine problem”. *Journal of Personality and Social Psychology, 92*, 42-55.
- Maner, J. K., Gailliot, M. T., Butz, D. A., & Peruche, B. M. (2007). Power, risk, and the status quo: Does power promote riskier or conservative decision making? *Personality and Social Psychology Bulletin, 33*, 451-462.
- Mayer, J. D., & Gaschke, Y. N. (1988). The experience and meta-experience of mood. *Journal of Personality and Social Psychology, 55*, 102-111.
- Mead, N. L., & Maner, J. K. (2012). On keeping your enemies close: Powerful leaders seek proximity to ingroup power threats. *Journal of Personality and Social Psychology, 102*, 576-591.

- Overbeck, J. R., & Park, B. (2001). When power does not corrupt: superior individuation processes among powerful perceivers. *Journal of Personality and Social Psychology, 81*, 549-565.
- Pickett, C. L., Gardner, W. L., & Knowles, M. (2004). Getting a cue: The need to belong and enhanced sensitivity to social cues. *Personality and Social Psychology Bulletin, 30*, 1095-1107.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavioral Research Methods, 40*, 879-891.
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate behavioral research, 42*, 185-227.
- Shah, J., Higgins, T., & Friedman, R. S. (1998). Performance incentives and means: how regulatory focus influences goal attainment. *Journal of Personality and Social Psychology, 74*, 285.
- Smith, P. K., & Bargh, J. A. (2008). Nonconscious effects of power on basic approach and avoidance tendencies. *Social Cognition, 26*, 1-24.
- Twenge, J. M., Baumeister, R. F., DeWall, C. N., Ciarocco, N. J., & Bartels, M. (2007). Social exclusion decreases pro-social behavior. *Journal of Personality and Social Psychology, 92*, 56-66.
- Twenge, J. M., & Campbell, W. K. (2003). "Isn't it fun to get the respect that we're going to deserve? Narcissism, social rejection, and aggression. *Personality and Social Psychological Bulletin, 29*, 261-272.

- Van Beest, I., & Williams, K. D. (2006). When inclusion costs and ostracism pays, ostracism still hurts. *Journal of Personality and Social Psychology, 91*, 918-928.
- Williams, K. D. (2007). Ostracism. *Annual Review of Psychology, 58*, 425-452.
- Williams, K. D., Cheung, C. K. T., & Choi, W. (2000). Cyberostracism: Effects of being ignored over the Internet. *Journal of Personality and Social Psychology, 79*, 748-762.
- Williams, K. D., & Jarvis, B. (2006). Cyberball: A program for use in research on ostracism and interpersonal acceptance. *Behavior Research Methods, Instruments, and Computers, 38*, 174-180.
- Williams, K. D., & Govan, C. L. (2005). Reacting to ostracism: Retaliation or reconciliation. *The social psychology of inclusion and exclusion, 47-62*.
- Zadro, L., Boland, C., & Richardson, R. (2006). How long does it last? The persistence of the effects of ostracism in the socially anxious. *Journal of Experimental Social Psychology, 42*, 692-697.
- Zanna, M. P., Kiesler, C. A., & Pilkonis, P. A. (1970). Positive and negative attitudinal affect established by classical conditioning. *Journal of Personality and Social Psychology, 14*, 321-328.

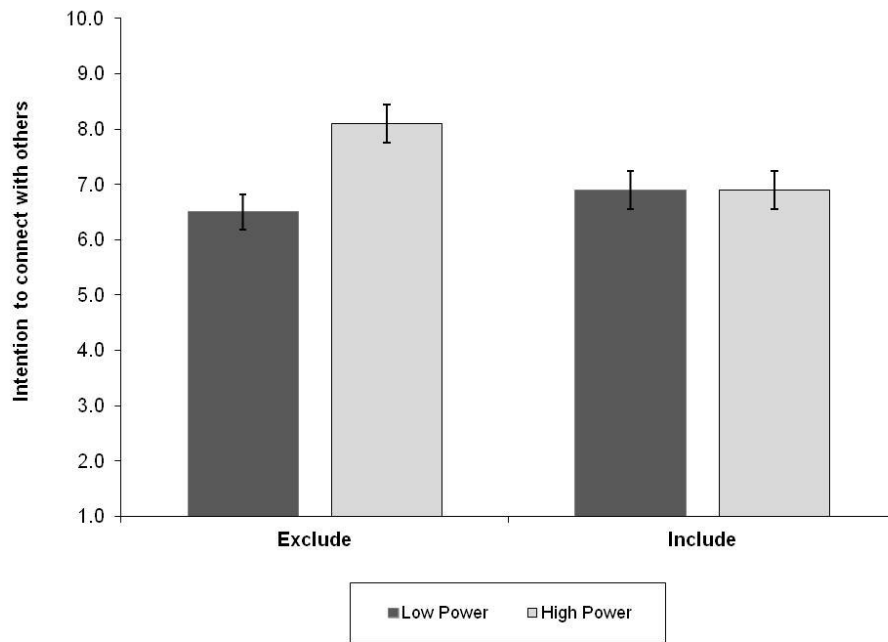
Figures

Figure 1. Results from Study 2: Approach orientation mediates the effects of power on intention to connect with others. Numbers represent standardized regression coefficients; numbers in parentheses represent simultaneous regression coefficients.



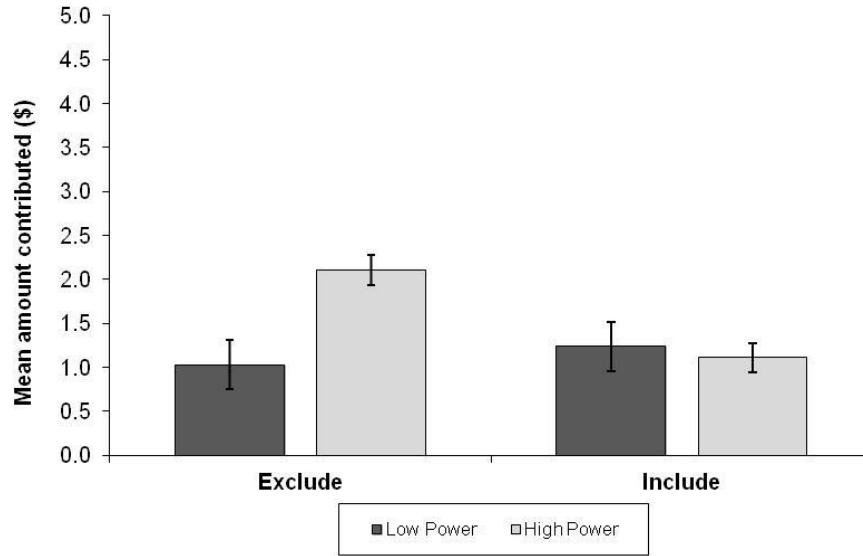
* = $p < .05$, *** = $p < .001$

Figure 2



Results from Study 3: Mean score on intention to connect with others in respective social feedback conditions (exclude, include). Error bars indicate standard errors of the means.

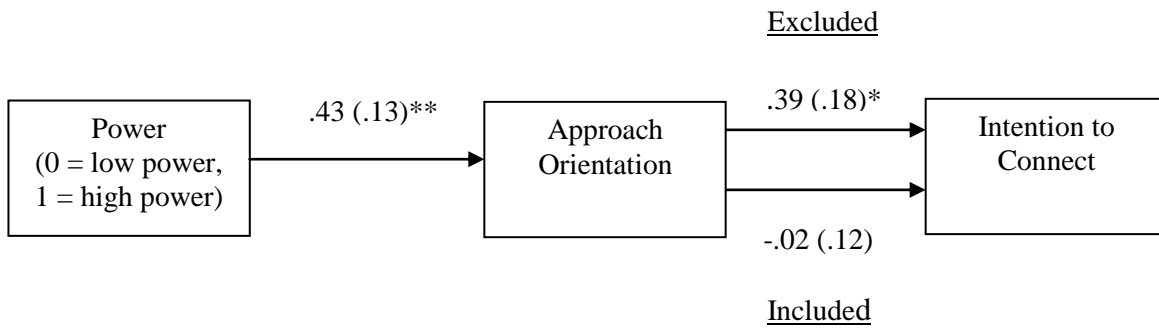
Figure 3



Results from Study 4: Mean score on amount contributed in respective social feedback conditions (exclude, include). Error bars indicate standard error of means

Figure 4. Results from Study 4: Approach orientation mediates the relation between power and intention to connect when individuals are excluded but not when individuals are included.

The β coefficients with standard errors are in parenthesis



* $p \leq .05$. ** $p \leq .01$.