

Relationship Orientation as a Moderator of the Effects of Social Power

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This research examined the hypothesis that the concept of power is mentally associated with different goals for individuals with a communal versus an exchange relationship orientation (M. S. Clark & J. Mills, 1979). It was predicted that communals associate power with social-responsibility goals, whereas exchangers link power with self-interest goals. Thus, when power is activated, distinct goals should be ignited for communals and exchangers. Power was primed unobtrusively using semantic cues in Study 1 and using naturally occurring, environmental cues in Studies 2 and 3. Across studies, power-primed communals responded in socially responsible ways, whereas power-primed exchangers acted more in line with their self-interests. These power-goal effects occurred nonconsciously. Overall, the data support taking a Person \times Situation approach—one that allows for moderators such as relationship orientation—to understand power's positive and negative effects.

Any man can withstand adversity; if you want to test his character, give him power.—Abraham Lincoln

In 1972, Kipnis raised the question "Does power corrupt?" in the title of his empirical article. The bulk of his findings suggested that the answer to this question was "yes." For example, Kipnis found that having power was associated with an increase in attempts to exert influence over the less powerful, and with the devaluation of the less powerful in terms of their ability and worth (Kipnis, 1972, 1976; see also Brewer, 1982). Along similar lines, recent meta-analytic findings suggest that, as power levels increase, performance evaluations for the self become more positive, whereas evaluations for others' performance become more negative (Georgeson & Harris, 1998). Indeed, seemingly countless real-world examples offer substantiation for the saying "power corrupts."

Yet at the same time, it is not too difficult to imagine a powerholder—perhaps a boss, teacher, or journal editor—who wields power in a socially responsible manner, attending and

responding to the opinions and needs of others. Such a powerholder experiences a sense of responsibility that is, if anything, heightened when exerting power. This powerholder takes seriously his or her accountability to the less powerful and is thus vigilant of their views and interests. Taken as a whole, research and everyday experience seem to suggest that power can have a variety of effects on those who possess it.

In the present research, we took a social-cognitive approach to examine the effects of power. In this approach, we conceptualized power's effects in terms of the goals that people mentally associate with power. We hypothesized that some people associate power with self-oriented goals. Among these individuals, activation of the concept of power should elicit behavior that is primarily focused on promoting one's self-interests. For others, we hypothesized that power is linked to social-responsibility goals. Among these individuals, power should elicit behavior that reflects an attentiveness and responsiveness to others' views and needs. In essence, we propose a Person \times Situation model, in which power is a situational variable that can have negative effects, such as eliciting self-interested behavior, or positive effects, such as encouraging socially responsible conduct, depending on the nature of the goals people associate with it.

Recent Social-Psychological Approaches to Power

Power is a fundamental aspect of everyday social life (Cartwright, 1959). Reflecting its ubiquity, psychologists have long theorized about power, pondering questions such as what is power, why is it sought, and how is it legitimized (e.g., Bierstedt, 1950; French & Raven, 1959; Kipnis, 1976; McClelland, 1975; Ng, 1980; Thibaut & Kelley, 1959; Winter, 1973). However, it was not until the last decade or so that empirical attempts to examine power have arisen in full force and have captured considerable

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attention in the field of social psychology (e.g., Bargh, Raymond, Pryor, & Strack, 1995; Fiske, 1993; Pryor, 1987).

Although the focus of recent empirical work varies, much emphasis has been given to power's negative effects. For example, research on power and stereotyping suggests that the powerful tend to pay less attention than the less powerful to individuating information about others, relying instead on category-based cues that lead to stereotyping (e.g., Fiske, 1993; Goodwin, Gubin, Fiske, & Yzerbyt, 2000; for a review, see Fiske & Dépret, 1996). Such stereotyping, which constrains the behavior of the stereotyped in stereotype-confirming ways, is thought to be due in part to powerholders' desire to exert and maintain their control (e.g., Fiske & Morling, 1996).

Research on parent-child relationships also points to power's potential deleterious effects (e.g., Bugental et al., 1993; Bugental, Lyon, Krantz, & Cortez, 1997). A key finding of this work is that parents who perceive themselves as powerless *vis-a-vis* their child are chronically inclined to interpret interactions with this child as "power contests." Such an inclination tends to elicit compensatory "power-repair" efforts, possibly in the form of parents' use of their greater physical power (e.g., Bugental, Blue, & Cruzcosa, 1989). Put another way, this research suggests that the desire to regain power may lead to the use of coercive tactics among, paradoxically, parents who view themselves as relatively powerless.

Of comparable menace is the notion that power is linked with sexual motives, a possibility supported by several lines of work examining predictors of sexual exploitation of women by men. For instance, research has shown that higher scores on the Attraction to Sexual Aggression (ASA) Scale (Malamuth, 1989a), a self-report measure of men's attraction to sexual aggression, are associated with a tendency to hold dominance as a motive in sexual relations (Malamuth, 1989b; see also Lisak & Roth, 1988; Malamuth, 1986). Other researchers have argued that dominance and sexuality are mentally associated among men who are inclined to sexually harass. This inclination is assessed by the Likelihood to Sexually Harass (LSH) Scale (Pryor, 1987), a self-report instrument assessing men's likelihood to use their leverage in a situation to take sexual advantage of female subordinates (e.g., Pryor, LaVite, & Stoller, 1993; Pryor & Stoller, 1994). One study found that, in a paired-associates memory test, high LSH men overestimated how frequently power and sex-related words had co-occurred in a list of paired associates they saw earlier and were more confident of their power-sex recognitions than were low LSH men (Pryor & Stoller, 1994). The "illusory correlation" that high LSH men perceived between power and sex, which presumably reflected a memory-retrieval advantage for power-sex stimulus pairs, suggests that these men possess a stored, mental association between the concepts of power and sex.

Strikingly, men who are accused of sexual exploitation often appear to be unaware of the exploitative nature of their conduct (Bargh & Raymond, 1995; Fitzgerald, 1993). Bargh et al. (1995) hypothesized that such unawareness may be due to the automaticity of their stored, power-sex mental association. That is, for these men, this association may be so strong that whenever the concept of power is activated, sex-related concepts are automatically activated, unintentionally and outside of awareness. Bargh et al. (1995) tested this using a sequential priming paradigm in which participants were exposed to prime-target word pairs on a computer. In each trial, a prime word was subliminally presented,

followed 250 ms later by a target word. Participants were asked to respond as quickly as they could to the target word, and their response latencies were recorded. Shorter latencies for target words preceded by a prime versus neutral word point to the automaticity of the prime-target association—both because of the subliminal presentation of the prime and because the time lapsing between presentation of the prime and target was too brief for any strategic processing of the target to occur (see Neely, 1977). This study documented the automaticity of the association between the concepts of power and sex among men who scored highly on the LSH and ASA Scales.

In another study, male participants were unobtrusively primed with power-related semantic stimuli as part of an initial task, which they completed with a female confederate (Bargh et al., 1995). Later, in an ostensibly unrelated task, they rated the confederate's attractiveness. Higher ratings were expected among individuals who associate power and sex relative to those without this association because activation of power should spread to sex-related concepts for the former group, leading them to perceive the confederate in sexual terms. Indeed, high ASA men in this study rated the confederate as more attractive and expressed a greater desire to get to know her better when they were primed with power, whereas such priming had no effect on the other participants.

Taken as a whole, then, a wide range of recent research suggests that power can have negative effects, in the sense that it appears to elicit behavior that gives primacy to one's own interests and desires. This behavior may involve exerting control over underlings directly (e.g., Kipnis, 1972) or indirectly by stereotyping (e.g., Fiske, 1993), making self-serving performance evaluations (e.g., Georgesens & Harris, 1998), or pursuing sexual motives (e.g., Bargh et al., 1995; Pryor, 1987). Yet clearly not every powerholder is driven primarily by self-interest. For example, the research described above on power-sex associations showed that it was specifically high ASA and LSH men who were susceptible to power's negative effects. What, then, predicts when power will and when it will not lead to self-interested, perhaps even exploitative, behavior? And, if power does not have such negative effects, what other effects might it have? The present research was guided by these questions.

Conceptualizing the Effects of Power in Terms of Power-Goal Associations

As indicated, Bargh et al. (1995) found that, on activation of the concept of power through exposure to power-related semantic stimuli, high ASA men interpreted a female confederate in sexual terms. A real-world analogue of this might be if a male boss were to be especially inclined to view a female subordinate in sexual terms in versus out of the office. That is, cues inherent to the office setting could activate the concept of power and, in turn, concepts strongly associated with power (i.e., sex). In the current set of studies, we examined this notion that cues in the environment can activate power. We proposed further that, in addition to perceptual concepts such as sex, particular goals are likely to be associated with power (see also Moskowitz, Gollwitzer, Wasel, & Schaal, 1999). This implies that priming power should in turn activate associated goals, eliciting goal-directed responses as a result. Thus, our central argument was that the effects of power can be understood, at least in part, in terms of power-goal mental associations.

Our hypothesis that power-related cues can activate associated goals assumes that goals, like perceptual concepts, are mentally represented. This assumption is grounded in the auto-motives model (e.g., Bargh, 1990), which argues that goal constructs are stored in memory—just as are traits, stereotypes, and other social constructs—and are subject to the same principles of construct activation and use. Considerable support for this model exists (for reviews, see Bargh, 1997; Bargh & Gollwitzer, 1994). For example, research has shown that participants who were unobtrusively primed with achievement or affiliation goals subsequently behaved in goal-consistent ways (Bargh, Gollwitzer, & Lee-Chai, 1999). Other work has examined the nonconscious activation of impression-formation and memorization goals (Chartrand & Bargh, 1996). When these goals were primed, participants processed information in a goal-consistent manner without an awareness of the influence these goals had on their processing, replicating previous research in which the goals had been given to participants explicitly through experimental instructions (e.g., Hamilton, Katz, & Leirer, 1980).

Conceptualizing power's effects in terms of power-goal associations raises the following question: What goals do people link with power? In line with the recent emphasis on power's negative effects (e.g., Fiske, 1993), we hypothesized that some people associate power with self-interest goals; for these individuals, then, activation of the concept of power should in turn elicit goal-consistent responses that give primacy to one's self-interests. At the same time, we also examined the possibility that power can have positive effects. Specifically, we proposed that some people may link power not with self-interest goals, but rather with other-oriented goals, or goals whose pursuit entails being attentive and responsive to others' views and needs (see also Dean & Malamuth, 1997; McClelland, 1975). Put another way, we hypothesized that these individuals associate power with social-responsibility goals.

The Moderating Role of Relationship Orientation

Our focus on self-interest and social-responsibility goals was driven in part by our view that individual differences in communal and exchange relationship orientations (Clark & Mills, 1979) would correspond to different kinds of power-goal associations. The difference between these orientations lies in the "rules" thought to govern the exchange of benefits in relationships (e.g., Clark & Mills, 1979; Clark, Mills, & Powell, 1986; Clark, Ouellette, Powell, & Milberg, 1987; Mills & Clark, 1982, 1994). Members in communal relationships benefit one another in response to each other's needs, without any specific expectation of a benefit in return. Thus, communally oriented individuals are primarily focused on responding to the needs and interests of others. In contrast, members in exchange relationships benefit one another with the specific expectation of receiving comparable benefits in return. Exchange-oriented individuals, then, tend not to attend to others' needs and interests, but rather are focused primarily on keeping a "tally" of the giving and receiving of benefits.

Clark et al. (1987) reported a moderately positive correlation between scores on a scale designed to assess communal orientation (see below) and scores on Berkowitz and Lutterman's (1968) measure of social responsibility. Like the communally oriented individual, the socially responsible individual is primarily other-oriented, attentive and responsive to others' views and interests,

concerned with adhering to prevailing social norms, and willing to benefit others regardless of what the self has to gain or lose (Berkowitz & Daniels, 1963; Berkowitz & Lutterman, 1968; cf. Winter, 1992). Although this implies that communal orientation is generally associated with social-responsibility concerns, our hypothesis was that power would enhance such concerns among communals. Why? Given the "need-based" rule governing the giving and receiving of benefits in communal relationships, and the attentiveness and responsiveness to others that this rule dictates, for such individuals power ought to mean being in a position to look out for the needs and interests of underlings, who are relatively in greater need (see also Berkowitz & Daniels, 1963; cf. Winter & Barenbaum, 1985). Indeed, we posited that regardless of whether they have received benefits from their underlings, communal powerholders are likely to feel as if they "owe" it to their underlings to be responsible with their power.

In contrast, we hypothesized that individuals with an exchange orientation tend to associate power with self-interest goals. Why? Members of exchange relationships are primarily concerned with maintaining balance in the giving and receiving of benefits. Thus, unlike communally oriented individuals, who are mainly focused on others' needs, exchange-oriented individuals are relatively more self-oriented in that they are primarily concerned with monitoring relationship exchanges to make sure that they are getting their "fair share." Although members of exchange relationships must be other-oriented to some degree, the attention they pay to others is mainly to ensure that they are giving about as much as others have benefited or could benefit them and that others are receiving about as many benefits as they have given or could give. Given such a "tit-for-tat" rule, it stands to reason that, for exchange-oriented individuals, power is likely to mean "owing" less, if not little, to underlings, who presumably have relatively fewer, if any, benefits to offer. Said differently, these individuals are likely to view power as rendering it appropriate and fair to benefit oneself, or in broader terms, to focus primarily on promoting one's own needs and interests.

Pilot Study

To obtain some preliminary support for the notion that communally oriented individuals tend to associate power with responsibility goals, whereas exchange-oriented individuals tend to associate power with self-interest goals, we had introductory psychology students complete the Communal Orientation Scale (Clark et al., 1987) and the Exchange Orientation Scale (Mills & Clark, 1994), which assess communal and exchange orientation, respectively, in mass testing sessions at the beginning of two separate semesters. We examined the association of scores on these scales to scores on two scales with items relevant to power as well as responsibility and self-interest concerns. Specifically, students ($N = 418$) in one semester also completed the Machiavellianism IV Scale (Mach IV; Christie & Geis, 1970), and in the other, students ($N = 188$) also completed the Social Dominance Orientation Scale (SDO; Pratto, Sidanius, Stallworth, & Malle, 1994). In both semesters, the scales of interest were randomly interspersed among approximately 17 other scales pertaining to a wide range of research topics.

Items from the Communal and Exchange Orientation Scales were randomly intermixed and presented as a single measure.

Examples of Communal scale items are "When making a decision, I take other people's needs and feelings into account" and "People should keep their troubles to themselves." Examples of Exchange scale items are "When I give something to another person, I generally expect something in return" and "It's best to make sure things are always kept 'even' between two people in a relationship." Participants rated the self-descriptiveness of each item using a 5-point scale. Their ratings were summed to create a score for each scale, with the appropriate items reverse-scored. Typically, communal and exchange scores are uncorrelated, or slightly negatively correlated, and thus are orthogonal dimensions (see Mills & Clark, 1994). These scores were uncorrelated in one of our pilot samples, $r(186) = -.07$, *ns*, and somewhat positively correlated in the other, $r(416) = .17$, $p < .000$.

The 20-item Mach IV Scale assesses one's willingness and tendency to manipulate others for self gain, and perhaps at the expense of others (e.g., "The biggest difference between most criminals and other people is that the criminals are stupid enough to get caught" and "Never tell anyone the real reason you did something unless it is useful to do so"). Respondents rate each item using a 6-point scale, ranging from 3 (*agree strongly*) to -3 (*disagree strongly*). After reverse-scoring the appropriate items, the mean for all items was calculated for each participant, with higher scores reflecting a stronger tendency to manipulate in the service of self gain.

Social dominance orientation is defined as "the extent to which one desires that one's in-group dominate and be superior to out-groups" (Pratto et al., 1994, p. 742). Using a 7-point scale, respondents to the 16-item SDO Scale rated how positive or negative they felt toward items such as "Some people are just more worthy than others," "To get ahead in life, it is sometimes necessary to step on others," and "We should try to treat one another as equals as much as possible" (Pratto et al., 1994). The mean for all items was calculated for each participant after reverse-scoring the appropriate items, with higher SDO scores indicating a stronger endorsement of a hierarchical structure of social groups.

In our view, both the Mach IV and SDO Scales tap, to some degree, how much respondents are focused on their own interests, whether these interests take the form of concrete benefits one wants to acquire (e.g., material goods) or psychological benefits one hopes to enjoy (e.g., standing of one's in-group relative to others). We reasoned further that both scales capture, to some extent, the inclination to pursue one's own interests over others' interests, especially when one has the means or power to do so. In these regards, we expected communal orientation to be generally associated with lower scores on both the Mach IV and SDO Scales, and conversely, exchange orientation to be generally associated with higher scores on both scales.

To examine these predictions, we compared the Mach IV and SDO scores of "communals," defined as participants who scored above the median on the Communal Scale and below the median on the Exchange Scale, to those of "exchangers," defined as participants who scored below the median on the first scale and above the median on the second. In our Mach IV sample, the mean communal and exchange scores of communals ($n = 53$) were, respectively, 59.4 and 21.0, and for exchangers ($n = 52$), these scores were 47.6 and 29.2, respectively. In our SDO sample, these scores were, respectively, 61.3 and 21.0 for communals ($n = 108$), and 49.9 and 29.3, respectively, for exchangers ($n = 118$).

As expected, communals scored significantly lower than exchangers on the Mach IV Scale, $F(1, 103) = 31.66$, $p < .001$, and the SDO Scale, $F(1, 224) = 16.45$, $p < .001$. Converging with these findings, communal scores were negatively associated with Mach IV scores, controlling for exchange scores, $r(186) = -.40$, $p < .01$, and exchange scores were positively associated with Mach IV scores, controlling for communal scores, $r(186) = .16$, $p = .03$. A similar pattern was found for the SDO scale; communal scores were negatively associated with SDO scores, controlling for exchange scores, $r(416) = -.25$, $p = .001$, whereas exchange scores tended to be slightly positively associated with SDO scores, controlling for communal scores, $r(416) = .09$, $p = .08$.

Encouraged that these pilot data were at least consistent with our hypothesis that communals link power with responsibility goals, whereas exchangers tend to associate power with self-interest goals, we conducted three studies to test our model of power-goal effects more directly. In all studies, communal and exchange participants were preselected based on their scores on the Communal and Exchange Orientation Scales, which were administered in a mass testing session at the beginning of the semester in which each study was run. As well, power was manipulated using priming techniques in all three studies. In Study 1, we used power-related semantic stimuli to prime power, whereas in Studies 2 and 3, we relied on naturally occurring, power-related cues in the environment to do so. Across studies, our main prediction was that unobtrusively activating the concept of power would elicit responsibility goals among communals and self-interest goals among exchangers, reflecting the distinct goals that communals versus exchangers chronically associate with power.

Study 1

In Study 1, communal and exchange participants were first asked to complete a word-search task in which they were exposed to words directly related or unrelated to power. Exposure to power-related words in this task was meant to unobtrusively prime the concept of power (as in, e.g., Bargh et al., 1995). Later, participants were placed in a situation in which their own interests were pitted against those of an alleged other participant, forcing them to behave in either a relatively socially responsible or self-interested manner. We reasoned that social-responsibility goals should dictate taking into account the other person's interests, whereas self-interest goals should dictate primarily looking out for one's own interests. Our main prediction was that unobtrusively activating power would set into motion responsibility and self-interest goals among, respectively, communal and exchange participants, unintentionally and outside of awareness.

Method

Participants

Participants were 34 undergraduates (7 men, 27 women) who received course credit. As indicated, participants were preselected based on their Communal and Exchange Orientation Scale scores.

Procedure

Participants signed up to participate in the experiment individually, but were led to believe that another participant, who was actually fictitious, had

signed up for the same session. After leading the participant to a lab room, the experimenter asked the participant to first sign a consent form while they waited for the other participant, and then to complete a word-search task, allegedly to help clear his or her mind in preparation for the experiment. For this task, participants were instructed to find and circle 10 words. These words were embedded in a grid of letters, laid out vertically and horizontally, forward and backward. For half of the participants, six of the words were power-related (i.e., authority, boss, control, executive, influence, rich), and four were unrelated to power (e.g., clock, house). For the other half, all 10 words were unrelated to power.

While participants worked on the word-search task, the experimenter left the room ostensibly to look for the other participant. After several minutes, she returned and reported that the other participant had left a phone message about being a bit late. Because the session should have started 10 min earlier, the experimenter said that they would begin and that the other participant would just have to join them. She then collected the participant's consent form and word-search task, and went on to describe how the study involved completing a set of 10 unrelated exercises for various researchers in the psychology department. Each participant would need to do five of them. At this point, the experimenter abruptly checked her watch and noted that the other participant should have already arrived. After appearing as if silently mulling over the situation, she indicated that she would give the participant her list of exercises to review while she went to check on the other participant one more time.

The list of exercises contained, in table format, information about 11 fictitious exercises. The first column of the table displayed the length of time each exercise would take to complete, and the second displayed a fictitious name for each exercise. The times required to complete each exercise were listed in either ascending or descending order (e.g., 7 min, 6 min, 5 min, 2 min, 2 min, 1 min), and care was taken to ensure that no exercise length was always paired with the same exercise name. The total time required to complete all of the exercises (41 min) was printed at the bottom of the first column. The exercise names were created to sound comparably bland and ambiguous—essentially uninformative as to the nature of the exercise (e.g., “M-41 Survey”). The third and fourth columns displayed fictitious names and phone numbers for the researchers who allegedly submitted the exercises to be included in the study. The date for the current week and the number of exercises were indicated on the top of the sheet. To bolster the sense that the list was not originally intended for participants to see, handwritten notes appeared on the list. Specifically, one 2-min exercise was always crossed off and marked “cancelled,” the number of exercises was accordingly marked down from 11 to 10, and the total number of minutes was marked down from 41 to 39 min.

After casually orienting the participant to the information on the list, the experimenter suggested that the participant select five exercises, and indicated that the other participant would do the remaining five. She added that as soon as she returned, she would give the participant the five exercises he or she chose and that he or she would be free to leave upon completing the exercises. The procedure was timed so that approximately 20 min remained in the 30-min session when the participant received the list so that all participants would be making their choices with the same amount of time left in the session. The total time required to do the 10 exercises on the list was 39 min—a number high enough to make time a fairly likely concern for all participants, and also one that could not be divided evenly in half, thereby forcing participants to tilt the number of minutes chosen in favor of either themselves or the other participant.

The total number of minutes needed to complete each participant's five exercise choices was our main dependent measure. In the experimental situation we created, in which participants believed they could leave as soon as they finished the exercises they chose, we reasoned that self-interest goals should lead one to choose fewer minutes for oneself, whereas responsibility goals should lead one to choose relatively more minutes, given the attentiveness and responsiveness to others' interests and needs that the pursuit of the latter goals entails.

After a few minutes, the experimenter returned and collected the list with the participant's five choices marked on it. She explained that because the other person had not shown up, the participant would only need to do two exercises that were especially in need of respondents. She then gave the participant two of the exercises on the list, which were both fillers included to bolster the cover story. The experimenter left the room while the participant worked on these exercises. On returning, she asked the participant to answer two open-ended suspicion probes (“Did you find anything strange or unusual about the experimental procedures?” and “What do you think is the purpose of this experiment?”). Finally, participants were debriefed, thanked, and excused.

Results and Discussion

No participants were excluded because they noted anything “strange or unusual” about the experiment. However, 1 participant was excluded because of difficulty with English, and 8 participants, who were distributed fairly evenly across conditions, were excluded because they expressed some suspicion that the purpose of the experiment was to see which exercises they chose. Nonetheless, the modal response to the item asking about the experiment's purpose was essentially a rearticulation of the cover story having to do with filling out exercises. Finally, no reference was made to power in any of the suspicion-probe responses, suggesting that any effects of our power-priming manipulation occurred unintentionally and outside of awareness, as intended.

In the remaining sample, the mean communal and exchange scores of communsals were, respectively, 60.8 and 22.1, and these scores for exchangers were 51.3 and 27.4, respectively.¹

For each participant, we calculated the total number of minutes it would take to complete the five chosen exercises, and then conducted a 2×2 (Power \times Relationship Orientation) analysis of variance (ANOVA) on this dependent measure. Neither main effect was significant ($F_s < 2$). However, as predicted, the interaction was significant, $F(1, 21) = 4.71, p = .04$. As depicted in Figure 1, the pattern of the means show that communsals chose more minutes for themselves after being exposed to power-related words ($M = 18.33$) compared with neutral words ($M = 16.86$), whereas exchangers chose fewer minutes for themselves after being exposed to power-related words ($M = 15.00$) compared with neutral words ($M = 17.67$).

These results support Study 1's central hypothesis that priming the concept of power would accordingly activate responsibility goals among communsals, leading them to take a greater part of the experimental burden on themselves relative to communsals who were not primed with power. In contrast, power-primed exchangers tended to behave more in line with their own interests, choosing fewer minutes for themselves as compared with exchangers who were not primed, presumably due to the activation of self-interest goals among the former group. As expected, the goal-consistent responses of power-primed communsals and exchangers appear to have been elicited automatically upon the unobtrusive

¹ In both Studies 1 and 2, across the entire participant pools from which we recruited participants, scores on the Communal and Exchange Orientation Scales were slightly negatively correlated, $r(422) = -.11, p < .05$ (Study 1), and $r(164) = -.20, p < .01$ (Study 2). In Study 3, participants were drawn from the participant pools of two adjacent semesters. The correlation in the first participant pool was $r(432) = .17, p < .001$, and in the second, $r(668) = .01, ns$.

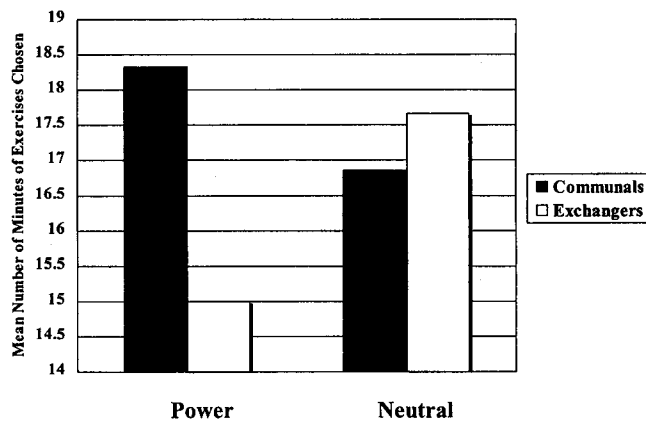


Figure 1. Mean number of minutes required to complete the five exercises chosen by participants. Participants were led to believe that an alleged other participant would need to complete the nonchosen exercises. Thus, a higher number of minutes corresponds to more socially responsible behavior, and, conversely, a lower number corresponds to more self-interested behavior.

activation of the concept of power, as not one participant indicated any suspicion or awareness of our interest in power.

Study 2

In Study 1, we used a priming manipulation that exposed participants to semantic stimuli that either were or were not directly related to power. In Study 2, our goal was to conceptually replicate and extend Study 1's findings by demonstrating that cues in the environment can activate the concept of power, and in turn, associated goals—without those cues being directly or semantically related to either power or the goals themselves (see also Bargh et al., 1995). As well, we sought to use naturally occurring cues to prime power, which would be an advance over both Study 1 and prior work (e.g., Bargh et al., 1995), which have only used power-related semantic stimuli to prime power. In the latter regard, we were also guided by the notion that people are probably often unaware of power's effects on their behavior precisely because cues signaling who does and does not have power are often inherent, and thus quite subtle, features in many everyday, real-world settings.

To achieve these aims, we conducted Study 2 in a professor's office, where we had participants sit in either the professor's chair behind the professor's desk or in a guest chair situated across from the desk. We reasoned that sitting in the professor's chair would serve as a subtle environmental cue that would unobtrusively activate the concept of power (in our undergraduate participant population), whereas sitting in the guest chair would subtly convey relatively less power. Armed with this new power-priming manipulation, we conducted another test of our model of power-goal effects, with a focus on examining the effects of activating power on setting into motion social-responsibility goals as a first step.

In this study, communal and exchange participants completed several scales while seated either in the professor's chair (power) or the guest chair (no power). Our scale choices were guided specifically by the idea that core aspects of socially-responsible behavior include taking into account the beliefs and opinions of

others and adhering to norms of socially approved conduct. Put another way, the socially responsible individual is someone who is aware of being a part of a larger social unit and someone who strives to uphold its beliefs and values (Berkowitz & Daniels, 1963; see also Winter, 1973). As part of an effort to be an upstanding member of this broader social unit, then, this individual is likely to endorse socially acceptable attitudes and norms. With these particular elements of social responsibility in mind, we searched for scales with items to which the socially desirable or acceptable way to respond would be clear to our participants. In this way, socially valued responses to these scales could be taken as an indirect measure of responsibility concerns—namely, a concern with being attentive to and expressing views in line with prevailing beliefs, values, and norms.

The Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960) and the Modern Racism Scale (McConahay, 1986) met this criterion. The Marlowe-Crowne Scale assesses concern with social approval. We reasoned that the attentiveness and adherence to others' views that are inherent to behaving responsibly would dictate responses to this scale indicating that socially desirable behaviors, defined as "culturally acceptable and approved behaviors" (Crowne & Marlowe, 1960, p. 354), are characteristic of oneself and that socially undesirable behaviors, or behaviors that would be met with wide disapproval, are not. The Modern Racism Scale assesses racist attitudes toward African Americans. For this scale, responsibility concerns should dictate endorsing nonracist items and disavowing racist items, or responses that reflect what norms of socially acceptable conduct would be likely to call for.

Of course, concern with expressing socially desirable, culturally valued responses is most likely to be elicited when these responses are subject to public scrutiny. Thus, we included procedures to induce participants to feel identifiable and thus a sense of nonanonymity regarding their responses to the Marlowe-Crowne and Modern Racism Scales. In this way, we led participants to view their scale responses as, essentially, public acts.

Our main prediction was that naturally occurring, power-related cues in the environment (i.e., seating position in a professor's office) would unobtrusively prime the concept of power, in turn activating responsibility goals among communals, automatically and outside of awareness. Because socially responsible behavior entails some degree of adherence to prevailing opinions and values, we expected power-primed communals to be especially inclined to give socially desirable responses—responses they were led to believe were public. In contrast, we did not expect power-related cues to elicit responsibility goals among exchangers, who we hypothesized do not associate power with such goals. Despite the public nature of their responses, then, power-primed exchangers were not expected to feel particularly obligated to adhere to norms of socially approved conduct, and thus not especially inclined to give socially desirable responses.

Pilot Testing

To verify the adequacy of our seating-position manipulation, we ran a pilot study in which we assessed whether sitting in the professor's chair of a professor's office unobtrusively activates the concept of power to a greater extent than sitting in a guest chair in the office. Thirty-three undergraduates (7 men, 26 women) were

recruited for this study in pairs. On arrival to a waiting area, the experimenter led each pair to an actual professor's office under the pretense that there was a scheduling conflict with the regular lab room. A large, wooden desk was situated near the center of the office. A telephone, some books, and a few stacks of paper were neatly arranged on the desk. The professor's chair, situated behind the desk, was cushioned and was adjusted so that it sat higher than the guest chair. A simple, wooden guest chair was situated approximately 75 cm across the desk. Upon entering the office, one participant was guided in an offhand manner, through words and gestures, to sit in the professor's chair (power), whereas the other was casually guided to sit in the guest chair (no power). Seating assignments were randomly determined.

Once seated, participants were given a consent form and told that the study involved completing a variety of unrelated exercises for researchers in the psychology department. They were then given a packet containing a word-fragment completion task, followed by three filler exercises and a suspicion probe with the same two items used in Study 1. The word-fragment completion task was designed to assess the degree of activation of the concept of power. The task was composed of a list of word fragments, each created by replacing one or more of the letters of a word with a blank. For each item, there were multiple ways to complete the word fragment. For example, D _ _ R could be completed as *door* or *deer*. Of the 30 word fragments, 11 could be completed as power-related words (e.g., power, boss, control). These key word fragments were randomly interspersed among 19 neutral word fragments. Participants were told to fill in the blanks with letters so as to create the first word that came to mind. After completing the packet, participants were debriefed, thanked, and excused.

For each participant, the number of word fragments completed as power-related words was tallied, with higher scores reflecting greater activation of the concept of power. A one-way ANOVA examining these scores, with seating position as the only factor, yielded a significant effect, $F(1, 31) = 5.37, p = .03$, indicating that participants seated in the professor's chair completed more of the fragments with power-related words ($M = 3.24$) than those seated in the guest chair ($M = 2.31$). Given that the word-fragment completion task is widely interpreted as an unobtrusive measure of construct activation, these pilot data verify that our seating-position manipulation activates the concept of power in varying degrees, unintentionally and outside of awareness. Indeed, as in Study 1, not one participant made any reference to power in their suspicion-probe responses.

Method

Participants

Participants were 54 undergraduates (22 men, 32 women) who received course credit. As in Study 1, participants were preselected based on their Communal and Exchange Orientation Scale scores.

Materials

Marlowe-Crowne Social Desirability Scale. The Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960) consists of 33 true-false items, each reflecting a socially desirable or undesirable behavior (e.g., "If I could get into a movie without paying and be sure I was not seen, I would probably do it"). As noted, because the social desirability of each

of these behaviors is obvious, we reasoned that the socially responsible way to respond on this scale would be to endorse socially desirable behaviors, that is, behaviors society values, and reject those likely to elicit social disapproval.

Modern Racism Scale. The Modern Racism Scale (McConahay, 1986) consists of seven Likert-scale items pertaining to attitudes toward African Americans (e.g., "Blacks should not push themselves where they are not wanted"). Because the items on this scale are overtly related to racism, respondents can choose to give either racist or nonracist responses (see Fazio, Jackson, Dunton, & Williams, 1995). Thus, as with the Marlowe-Crowne Scale, if participants in the present study were concerned with others' views and reactions to their responses, which they were led to believe were public, they could control the nature of their responses accordingly. As indicated, we reasoned that socially responsible responses on this scale would take the form of agreeing with nonracist items, and disagreeing with racist ones—responses that a concern with adhering to prevailing social norms would compel.

Procedure

Two participants were recruited for each experimental session. As in the pilot study, they were led to a professor's office on arriving to a waiting area and were randomly assigned to sit in the professor's chair or the guest chair. Once seated, they were told that the study involved completing a set of unrelated exercises. Then, as if she were simply trying to properly link up participant names with the actual participants, the experimenter read off each participant's name from what appeared to be a participant list. Each participant was then given an exercise packet with a consent form prominently stapled on top. This form required participants to both print and sign their names. Both the name-reading procedure and consent form were meant to lead participants to feel a sense of nonanonymity, and, as a result, to view their responses to the scales as, essentially, public behaviors. The packets contained the Marlowe-Crowne and Modern Racism Scales, along with two filler scales. The experimenter left the room while participants completed the packets. Afterward, participants answered our standard two suspicion-probe items and were then debriefed, thanked, and excused.

Results and Discussion

No participants were excluded on the basis of their responses to either suspicion-probe item. Although the study took place in a professor's office, the vast majority of participants indicated that they did not find anything "strange or unusual" about the study, indicating our cover story regarding "scheduling conflicts" was seen as credible. And, as in Study 1, when asked to speculate as to the experiment's purpose, the modal response referred to the cover story. Finally, not one reference was made to power, further supporting the claim that any effects of our seating-position manipulation of power occurred nonconsciously.

The mean communal and exchange scores of communal were, respectively, 59.0 and 21.2, and for exchangers, these scores were 49.0 and 29.9, respectively. Participants' ratings on the Marlowe-Crowne Scale were summed so that higher numbers indicated greater concern with social approval. Scores on this scale could range from 0 to 33. To calculate scores for the Modern Racism Scale, participants' ratings on this scale were averaged so that higher numbers corresponded to more racist attitudes. The range for these scores was 1–5. Modern Racism scores were then reversed so that higher numbers on both the Marlowe-Crowne and Modern Racism Scales would reflect greater concern with social responsibility, conceptualized in terms of the tendency to give socially desirable, culturally valued responses.

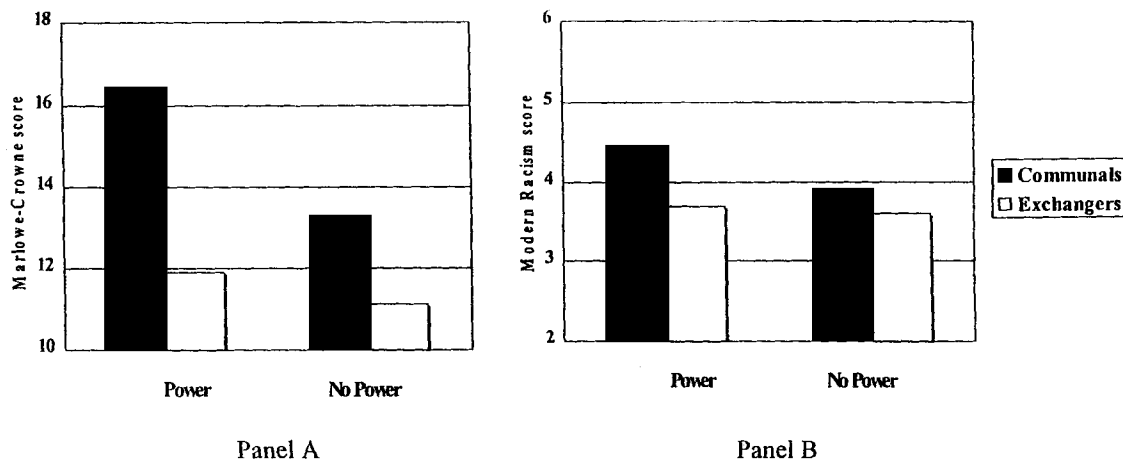


Figure 2. Mean scores on the Marlowe-Crowne Social Desirability Scale and mean scores on the Modern Racism Scale. Higher scores correspond to greater concern with social approval for the first scale and to less racist attitudes on the second scale.

Socially Desirable Responses

To examine Study 2's main hypothesis, we conducted a 2×2 (Power \times Relationship Orientation) ANOVA on an aggregate of participants' Marlowe-Crowne and Modern Racism scores, which was created by averaging each participant's standardized scores, and then standardizing this aggregate. We relied on this aggregate based on our a priori rationale that, given the nature of the items on the Marlowe-Crowne and Modern Racism Scales, coupled with the public conditions under which participants completed these scales, responses to both scales could be taken as measures of respondents' concern with giving responses that adhere to culturally acceptable and valued beliefs and norms. In support of this rationale, mean scores for the two scales patterned very similarly, as shown in Panels A and B of Figure 2, and an analysis with scale type as a repeated-measures factor showed that it did not interact with the critical Power \times Relationship Orientation interaction ($F < 2$).

The 2×2 ANOVA of our aggregated measure yielded a significant relationship orientation effect, $F(1, 50) = 15.63, p < .001$, indicating that communals gave more socially acceptable responses than exchangers overall. This finding fits prior research by Clark et al. (1987), which found a moderately positive correlation between communal-orientation scores and a measure of social responsibility (Berkowitz & Lutterman, 1968). It is important to note, though, that our hypothesis was that priming power would enhance responsibility concerns among communals, as would be evidenced in a heightened tendency to respond in socially acceptable ways. In line with this prediction, the relationship orientation effect was qualified by a Power \times Relationship Orientation interaction, $F(1, 50) = 5.34, p < .03$. Supporting this study's key hypothesis, when unobtrusively primed with power, communals exhibited a significantly stronger tendency to give socially desirable responses ($M = 0.97$) than did exchangers in this condition ($M = -0.60$), $F(1, 50) = 22.05, p < .001$. In contrast, in the no-power conditions, communals ($M = .01$) did not differ reliably from exchangers ($M = -.40$), $F(1, 50) = 1.22, ns$.²

"Equal-Power" Control Condition

One might have expected communals and exchangers to differ even under no-power conditions due to chronic differences in their concern with responsibility. Although the direction of the means fits this expectation, the means did not differ reliably, as noted. This lack of a difference, though, might be seen as consistent with our model of power-goal effects. How so? When without power, it may be that communals view themselves as the ones with relatively greater need and thus expect more powerful others to take on the bulk of the responsibility in a given situation. Put another way, if communals link power with responsibility goals, as we have hypothesized, then when environmental cues signal relatively little power, such goals may be suppressed, thereby dampening responsibility concerns.

A prediction that follows from this suppression account for the lack of a difference between no-power communals and exchangers is that under conditions of "equal" power, a difference should emerge. We ran a separate "equal-power" group of participants ($N = 45$) to test this prediction. Specifically, we had pairs of participants fill out the same two scales as had our original participants while seated across from one another at a small table in a regular lab room. This seating arrangement was meant as an environmental cue that would convey equal power, instead of a power inequality, as was the case in both the power and no-power conditions. In line with a suppression interpretation, equal-power communals showed a significantly stronger tendency to respond in socially acceptable and valued ways ($M = .51$), as seen in an aggregate of their scores on the two scales, relative to equal-power exchangers ($M = -.43$), $F(1, 43) = 8.91, p < .005$.

² Thirty-two participants took part in the experiment with another participant present, whereas the remaining participants took part alone. We conducted a separate ANOVA with the presence or absence of another participant included as a factor. This factor did not moderate our predicted Power \times Relationship Orientation interaction ($F < 1$).

As a further test of this interpretation, we examined whether there was a linear trend, reflecting increases in the tendency to give socially valued responses as a function of our three power conditions ranging from no power (guest chair) to equal power (lab table) to power (professor's chair). To do so, we computed an interaction contrast examining such a trend among communal and exchangers. This analysis was significant, $F(1, 93) = 5.46, p < .05$. Follow-up linear contrasts done separately for communal and exchangers indicated that this trend was significant among communal, $F(1, 93) = 18.24, p < .01$. In fact, as shown in Figure 3, the mean on our aggregated measure for equal-power communal was essentially midway between the means for power and no-power communal. Confirming this, a contrast comparing the equal-power to the other two power conditions combined was nonsignificant ($F < 1$). Overall, then, these findings for communal fit our reasoning that, among those who tend to associate power with responsibility goals, the tendency for power to heighten responsibility concerns is complemented by a tendency for a relative lack of power to dampen them.

The linear trend across the three power conditions was marginally significant among exchangers, $F(1, 93) = 3.05, p = .08$, reflecting a trend in responsibility concerns opposite to the one seen among communal. As depicted in Figure 3, the mean on our aggregated measure for equal-power exchangers lay between the means in the two unequal-power conditions, and this was confirmed by a nonsignificant contrast comparing the former condition to the latter two ($F < 1$). Overall, then, exchangers differed from communal not only in giving less socially desirable responses in general, but also in exhibiting a slight decline in the tendency to give such responses with increasing power.

At first glance, the marginal trend among exchangers might be viewed as support for our hypothesis that exchangers associate power with self-interest goals insofar as it reflects decreasing attentiveness and adherence to others' beliefs and values as a function of increasing power. However, the scales used in Study 2 were deliberately chosen as indirect measures of responsibility concerns, not self-interest ones, rendering them well-suited to test the prediction that communal associate power with responsibility goals, but less well-suited to test the prediction that exchangers

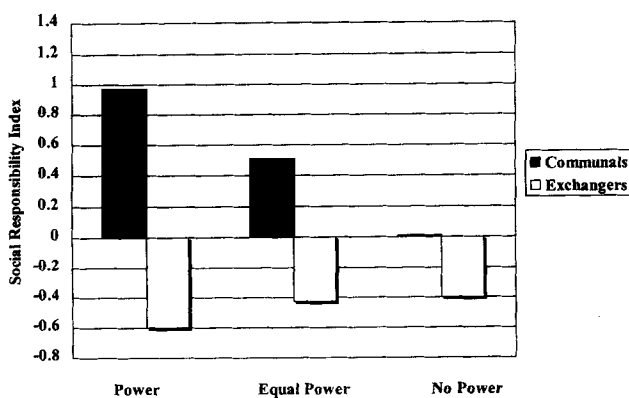


Figure 3. Mean scores on a standardized aggregate of scores on the Marlowe-Crowne Social Desirability and Modern Racism Scales. Higher scores correspond to more socially acceptable and valued questionnaire responses.

link power with self-interest goals. Even if our power-priming manipulation had activated self-interest goals among exchangers, as we would argue typically occurs, the effects of such goal activation might not have fully emerged because self-interest goals were not particularly applicable to this study's experimental tasks. Indeed, past research has indicated that activated constructs exert an influence only to the extent that they are applicable (i.e., relevant) to the task, situation, or stimuli at hand (Banaji, Hardin, & Rothman, 1993; Bargh, 1990, 1997; Hardin & Rothman, 1997; Higgins, 1996).

Study 3

Using naturally occurring cues in the environment to manipulate power, Study 2 produced results in line with our model of power-goal effects, in particular the hypothesis that communal link power with responsibility goals. To conceptually replicate and extend these findings, in Study 3 we used our seating-position manipulation in a paradigm similar to that used in Study 1, in which the pursuit of both responsibility and self-interest goals could be examined. Thus, as in Study 1, while seated in the professor's chair or guest chair of a professor's office, communal and exchange participants were put in a situation in which their own interests were pitted against those of another participant, and their responses to this situation were used to assess the extent to which responsibility versus self-interest goals had been set into motion upon activation of the concept of power. As before, we reasoned that behaving responsibly in this situation would entail taking into account the welfare of the other person, whereas behavior fueled by self-interest goals would dictate primarily looking out for one's own interests.

Method

Participants

Participants were 108 undergraduates (46 men, 62 women) who received course credit. Once more, participants were preselected based on their Communal and Exchange Orientation scale scores.

Procedure

As in Study 1, participants signed up for the experiment individually, but were led to believe another participant had also signed up. On arrival, they were led to a professor's office and were randomly assigned to the professor's chair or the guest chair. The experimenter suggested that they wait a few minutes for the other participant, who had not yet arrived, and then left the office ostensibly to check on this other person. After a few minutes, the experimenter returned and explained that the other participant had left a message about being late. Because the session should have already started, they would begin and the other participant would just join them. The experimenter then explained that the study involved completing a set of 10 exercises and that each participant would need to do five of them. At this point, the experimenter checked her watch and noted that the other participant should have arrived by this time. After silently mulling things over, she indicated that she would give the participant the exercise list to review while she went to check on the other participant one more time. The list was identical to the one used in Study 1. Participants were told to choose five exercises, with the understanding that the other participant would need to do the remaining five, and that they would be free to leave once they completed the exercises they chose for themselves. Once again, approximately 20 min remained in the 30-min session when the

participant was left with the list. In this study, however, the experimenter recorded the time of her departure to ensure that this was the case across all conditions.

After a few minutes, the experimenter returned and collected the exercise list with the participant's five choices marked on it. She then indicated that, because the other person had still not shown up, the participant would only have to do a few exercises that were especially in need of respondents. Participants were given two exercises from the list, one of which was a filler. The other was added to obtain some measure of the extent to which responsibility versus self-interest goals had been activated. In this exercise, participants were asked to rate the importance of 10 different "values" using a 7-point scale (1 = *not at all important*, 7 = *very important*). Each "value" was defined by a short, parenthetical phrase. Two of the values were related to responsibility: "social responsibility (ensuring the welfare of others)" and "empathy (sensitivity to the needs and concerns of others)." Another two were related to self-interest: "personal welfare (looking out for one's own interests and needs)" and "ambition (focus on self-advancement and self-improvement)." In an effort to measure their current versus chronic goal states, participants were instructed to base their ratings on their immediate "gut reactions."

The experimenter left the room while the participant worked on the two exercises. On returning, she asked the participant to fill out a form about the experiment. In this form, participants were probed for suspicion with our standard two items. In addition, because the logic of our paradigm required that participants were aware of the time required to do the exercises, we added an item asking participants to recall the total number of minutes it would have taken to do the exercises they had chosen. We expected a fair degree of accuracy in recall, indicating that participants were aware of time as a factor in their choices, and that this accuracy would be comparable across conditions. Finally, participants were debriefed, thanked, and excused.

Results and Discussion

Six participants were excluded because of suspicion, most typically of whether there was actually another participant. One was excluded because the professor's phone rang, and another because she was found sleeping. Two others were excluded because they did not choose five exercises, and one because his score on the main dependent measure was an extreme outlier (greater than 3 SDs). These 11 excluded individuals were distributed fairly evenly across conditions. As in the prior studies, not one participant referred to power in their suspicion-probe responses, suggesting again that any effects of our power-priming manipulation occurred nonconsciously.

In the remaining sample, the mean communal and exchange scores of communsals were 60.2 and 20.8, respectively. The same scores for exchangers were 50.6 and 28.8, respectively.

Adequacy of Experimental Procedure

Time remaining in the experimental session. As indicated, the experimenter recorded the time remaining in the session when each participant was left to make his or her exercise choices. To verify that all participants were faced with this choice task when there were about 20 min left in the session, we analyzed this recorded number in a 2×2 (Power \times Relationship Orientation) ANOVA.³ This analysis yielded no significant effects ($F_s < 3$). Moreover, the mean recorded number of minutes remaining in the session was almost exactly 20 min ($M = 20.2$). Thus, all participants made their choices under essentially identical time circumstances.

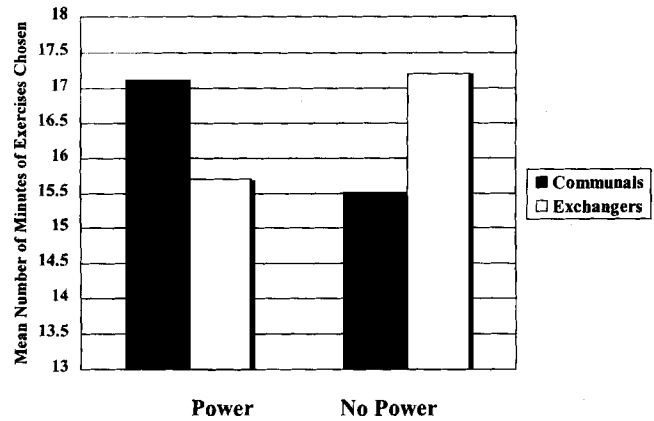


Figure 4. Mean number of minutes required to complete the five exercises chosen by participants.

Awareness of the time needed to do the exercises. To verify that participants were aware of the time needed to do the exercises they chose, a score was computed for each participant reflecting the discrepancy in the number of minutes he or she recalled having chosen and the actual number chosen. High discrepancy scores suggest low awareness of time. Discrepancy scores were analyzed in a 2×2 (Power \times Relationship Orientation) ANOVA. As expected, no reliable effects emerged from this analysis ($F_s < 2$), suggesting that all participants viewed the time it would take to complete their chosen exercises as a factor in their choices. Moreover, the average discrepancy score was low ($M = 1.2$) indicating a generally high level of awareness of time as a factor.

Total Number of Minutes Required to Complete the Five Chosen Exercises

For each participant, we calculated the total number of minutes needed to complete the five exercises he or she chose. Whereas self-interest concerns should dictate choosing fewer minutes for oneself, responsibility concerns should be associated with choosing relatively more minutes, out of concern for the interests of the other participant, who would be left to do the remaining exercises. In a 2×2 (Power \times Relationship Orientation) ANOVA on this dependent measure, neither main effect was significant ($F_s < 1$); however, the Power \times Relationship Orientation interaction was significant, $F(1, 93) = 5.14, p = .03$. As shown in Figure 4, the means reflect a crossover interaction pattern. Focusing on the power conditions, communsals ($M = 17.1$) chose more minutes for themselves relative to exchangers ($M = 15.7$). Thus, in support of our key hypothesis, the unobtrusive activation of power, based on subtle, power-related cues in the environment, appears to have activated, in turn, responsibility goals among communsals, as seen in their tendency to take a greater part of the experimental burden on themselves than did power-primed exchangers. The latter indi-

³ Five participants were not included in this analysis because they did not respond to the item asking them to recall the total number of minutes they chose. These participants were distributed nearly equally across conditions, making it unlikely that the failure to respond to this item reflects anything meaningful.

viduals, in contrast, behaved relatively more in line with their own interests, presumably due to the activation of self-interest goals upon activation of the concept of power.

An almost identical, but reversed, pattern of means was found in the no-power conditions. No-power communal ($M = 15.5$) agreed to fewer minutes than did no-power exchangers ($M = 17.2$). This reversal is reminiscent of Study 2's finding that priming a relative lack of power dampened communal's tendency to give socially valued scale responses, a pattern we suggested might have been due to the suppression of responsibility goals. A similar interpretation might be made of Study 3's no-power conditions. That is, the reversed pattern of means seen for communal versus exchangers when environmental cues signaled a lack of power may be attributable to the suppression of the distinct goals that individuals of the two groups tend to link with power.

Ancillary Analyses

As indicated, after participants made their exercise choices, they rated the importance of a list of values on the basis of their gut reactions. Two values referred to responsibility concerns, and two referred to self-interest ones. Because separate analyses of each value within each pair yielded nearly identical results, we aggregated each pair into a single index, with one tapping the degree to which responsibility goals were activated and the other the degree to which self-interest goals were activated.

A 2×2 (Power \times Relationship Orientation) ANOVA of the responsibility index yielded only a relationship orientation effect, $F(1, 93) = 20.12, p < .001$, indicating that communal ($M = 6.18$) rated responsibility as more important than did exchangers ($M = 5.28$). This fits prior work showing that communal orientation tends to be positively associated with responsibility concerns (Clark et al., 1987). Yet one might have expected communal to rate responsibility higher than exchangers, particularly when primed with power. Given the strong support seen on our number-of-minutes measure for our hypothesis that communal associate power with responsibility goals, we do not view the absence of a reliable increase in communal's responsibility ratings from the no-power to power conditions as especially problematic. One explanation might be that, despite instructions to base their ratings on their current states, participants may have based their ratings on their chronic states, thereby obscuring temporary, situationally induced variations in responsibility concerns. Or it may be that participants were simply unable to report on their goal states with enough precision for us to capture the effects of our power-priming manipulation on the extent to which responsibility goals were activated (see Nisbett & Wilson, 1977; Wilson & Brekke, 1994). Finally, it is possible that having made their exercise choices, participants had satisfied the goals that had been temporarily activated by our priming manipulation, causing this goal to decrease in activation level (e.g., Atkinson & Birch, 1970; see also Tesser, Martin, & Cornell, 1996). As a result, participants rated the values based on their chronic goals (e.g., Bargh & Gollwitzer, 1994).

No significant effects emerged from a 2×2 (Power \times Relationship Orientation) ANOVA of the self-interest index ($F_s < 1$). In light of our clear finding that power-primed communal tended to pursue responsibility goals, whereas power-primed exchangers tended to act in accord with their own self-interests—as seen in the

number of minutes chosen—this lack of reliable effects may be explained by reasons like the ones offered above for the responsibility-item results. On the other hand, one might have expected exchangers ($M = 6.13$) to rate the self-interest items higher than communal ($M = 6.18$), regardless of power. Said differently, one might find it surprising that communal did not rate these self-interest items any lower than they rated the responsibility items. We find these results intriguing and discuss them further in the General Discussion.

General Discussion

Much recent social-psychological work on power has focused on examining the effects of power, documenting a variety of its negative consequences (e.g., Bargh et al., 1995; Fiske, 1993; Georgesen & Harris, 1998). We too examined power's effects, arguing specifically that the concept of power is likely to be associated with particular goals so that when power is activated, these goals are accordingly activated, eliciting goal-directed responses as a result. We hypothesized further that communally versus exchange-oriented individuals associate distinct goals with power, as logical extensions of the "rules" that govern how they generally relate to others. The need-based rule of communal suggests that such individuals are likely to link power with responsibility goals, whereas the tit-for-tat rule of exchangers implies that these individuals are likely to view power as rendering it fair to pursue self-interest goals. In short, we predicted that chronic communal versus exchange relationship orientation would moderate the effects of power, conceptualized in terms of power-goal mental associations.

Three studies yielded support for our model of power-goal effects. In all studies, we used priming techniques to activate the concept of power. Our overriding hypothesis was that priming power would activate responsibility goals among communal, leading them to act relatively responsibly, attentive and responsive to others' views and interests. Among exchangers, however, priming power should set into motion self-interest goals, eliciting behavior that gives primacy to one's own interests and desires. In line with these predictions, Study 1's results showed that communal who were exposed to power-related semantic stimuli tended to act more responsibly, by agreeing to more minutes of exercises, relative to communal exposed to neutral stimuli. In contrast, exchangers who were exposed to power-related semantic stimuli made exercise choices more in line with their self-interests, agreeing to fewer minutes, relative to exchangers who were exposed to neutral stimuli.

In Studies 2 and 3, we turned to naturally occurring cues to prime the concept of power (i.e., seating position in a professor's office). Study 2 focused on a potentially positive effect of power, namely, its effect on responsibility concerns, assessed indirectly in terms of participants' tendency to give socially desirable, public responses on scales to which the culturally valued way to respond was obvious. Given that a core aspect of responsible conduct is being attentive and responsive to others' views and reactions (e.g., Berkowitz & Daniels, 1963), we reasoned that responsibility goals should dictate giving responses that adhere to prevailing opinions and norms. Put another way, the socially responsible individual is one who strives to uphold the beliefs and values held by members of the broader society. Study 2's results showed that, as predicted,

when unobtrusively primed with power, communals showed greater adherence to norms regarding socially acceptable views relative to exchangers, presumably because communals, but not exchangers, link power with responsibility goals.

In Study 2's no-power conditions, communals and exchangers did not differ in their tendency to give socially valued responses. Although no-power communals might have been expected to show a stronger tendency than no-power exchangers, given their chronically higher level of responsiveness to others' views and needs, we suggested that this lack of a difference coheres with our hypothesis that communals link power with responsibility goals. That is, given the need-based rule of communal relationships, it follows that communals without power may expect more powerful others to take on more of the responsibility in a given situation, and in fact may view it as appropriate for they themselves to be relatively less concerned with responsibility, given their needier status. In line with this reasoning, when we collected additional data to constitute an equal-power condition, we found a significant linear decline in the extent to which communals gave socially valued responses from our power to equal-power to no-power conditions. Thus, the tendency for power to heighten pursuit of responsibility goals may be complemented by a tendency for a lack of power to diminish it.

Study 2's focus on responsibility goals did not allow a clear test of whether activating the concept of power, based on naturally occurring cues, elicits self-interest goals among exchangers. Thus, in Study 3 we manipulated power through seating position and placed participants in Study 1's experimental situation. In this situation, participants' own interests were at odds with those of another person, forcing them to act in either a relatively responsible or self-interested manner. Conceptually replicating Study 1, when sitting in the professor's chair, Study 3's communals tended to act more responsibly than exchangers in that they chose more minutes of exercises for themselves, presumably taking into account the other person's interests. In contrast, when environmental cues signaled a lack of power, the goals that communals and exchangers link with power appear to have been suppressed; no-power communals agreed to fewer minutes than no-power exchangers, a pattern opposite to the one seen in our power conditions.

Implications of Our Social-Cognitive Approach to Understanding the Effects of Power

In our research, we took a social-cognitive approach to examine the effects of power, conceptualizing these effects in terms of power-goal associations. As described earlier, power-related mental associations were first proposed in research concerned with links between power and sex (Bargh et al., 1995; see also Pryor & Stoller, 1994). A key finding in this work was that, among men thought to possess a power-sex association, priming power activated, in turn, sex-related concepts (Bargh et al., 1995). Our results fit squarely with this finding. They suggest that activating power activates, in turn, the hypothesized goal constructs among communals and exchangers, much like the way in which activating power elicits sex-related concepts among those who link power and sex. Together, these data clearly suggest the need to view power's effects in Person \times Situation terms. That is, power is a situational variable that interacts with person variables—in our

case, chronic relationship orientation—to bring about different cognitive, motivational, and behavioral responses depending, at least in part, on the nature of the perceptual concepts and goal constructs people associate with power.

Another key aspect of the research on power-sex effects was the demonstration that the activation of sex-related concepts upon the activation of the concept of power can occur automatically, unintentionally and outside of awareness, among men likely to possess power-sex associations (Bargh et al., 1995). The power-goal effects documented in the present studies were similarly nonconscious, in that not one of our participants indicated any awareness or suspicion of our interest in power. Our findings, though, extend earlier work by using naturally occurring cues in the environment to prime power (Studies 2 and 3). It is important to note that unlike the power-related semantic stimuli used in prior research, these cues were neither directly nor semantically related to either power or the goals of interest. Moreover, in our view, using naturally occurring cues to document power's effects is an important advance given our speculation that these effects are often set into motion precisely on the basis of subtle, power-relevant cues that are inherent to most, if not all, interpersonal encounters and settings, and thus are cues of which people are not typically consciously aware.

Of course by taking a social-cognitive approach to assessing the effects of power, our research speaks most directly to the effects of power-related cognitions, made accessible on the basis of power-related stimuli, on subsequent responses. One might question, then, whether our power-goal effects would generalize to settings in which people are aware of the power they hold by virtue of explicitly being given or placed in a position of power. We speculate that, to the extent that people view it as appropriate, if not obligatory, to pursue the goals they associate with power, there is perhaps little reason to suspect that similar power-goal effects would not emerge when people consciously possess power, just as when the concept of power has been activated. Of course, more research is needed to directly address this question.

Mechanisms Underlying the Effects of Power

Although the data are highly consistent with the argument that the primary mechanism underlying our key findings is the automatic activation of distinct power-related goals among communals and exchangers, we recognize, of course, that there may be additional or alternative mechanisms. To speculate, it may be that communals and exchangers associate power with similar goals, but the strength of this power-goal link is greater for one group than the other. From this view, the differences seen between power-primed communals and exchangers would be due simply to differences in the degree to which the same goal was set into motion upon the activation of power. Although we cannot rule this out entirely, it seems unlikely because it suggests that differences in the responses of power-primed communals and exchangers should have been a matter of degree, not direction. However, directional differences emerged, seen perhaps most clearly in a comparison of Study 2's equal-power communals and exchangers with their power-primed counterparts; among communals, responses became more socially desirable in the power condition relative to the equal-power condition, whereas the reverse tended to be true for exchangers in the power relative to equal-power conditions.

Another, more challenging possibility is that power may have automatically activated power-related goals among communals and exchangers, but these goals were not the hypothesized ones. In fact, we cannot be certain that power-related goals were activated at all and are what account for our findings. However, if goals other than the hypothesized ones were activated or if power-related goals were not activated at all, what accounts for the relatively responsible responses seen among power-primed communals in our studies as compared with the self-interested ones of power-primed exchangers?

One might speculate that, contrary to our view that our findings reflect the automatic activation of power-related goals, our results actually reflect conscious processes that overrode the influence of whatever goals may have been activated. That is, perhaps our participants chose their responses quite deliberately, after a conscious assessment of what was called for in the situations with which they were faced. From this view, the differences we found between communals and exchangers would be unsurprising, due simply to defining differences in how communals and exchangers generally behave in interpersonal situations. However, this line of reasoning falls short because it fails to explain the differences found between power conditions among communals and among exchangers. Here it is important to reiterate that not one participant expressed any suspicion about our priming techniques nor our interest in power, suggesting quite strongly that participants were unaware of the impact of power on their responses. Given this lack of awareness, it is not clear on what basis participants in our different power conditions would have arrived at different conscious assessments about how best to respond so as to produce the clear differences that emerged between these conditions.

Nonetheless, overall we acknowledge that unequivocal evidence that the activation of power-related goals is what accounted for the positive and negative effects of power shown in our studies awaits further research. At the same time, we underscore that the findings from our three studies provide converging evidence for our model of power-goal effects. In our view, these data are readily and parsimoniously interpretable as reflecting the automatic activation of distinct goals among communals versus exchangers upon the unobtrusive priming of the concept of power, eliciting distinct goal-consistent responses as a result.

Future Directions

Increasing attention is being given to the idea that the self is defined in relation to others. This is the case in the cross-cultural literature (e.g., Markus & Kitayama, 1991), in close relationships work (e.g., Andersen, Reznik, & Chen, 1997; Aron, Aron, Tudor, & Nelson, 1991), and in the realm of social identity and intergroup relations (e.g., Brewer, 1991). In light of this, it is interesting to speculate on how the self might have been involved in the power-goal effects captured in the current studies.

Power and the self. To our knowledge, existing work on communal and exchange relationships has yet to explicitly address the self-views of communals and exchangers. Although we have argued that exchangers tend to view power as rendering it fair to pursue self-interests, whereas communals tend to link power with the need to be focused on others' interests and views, we do not mean to imply that the self is necessarily uninvolved in communals' pursuit of responsibility goals. Clark and Mills (1993) sug-

gested, in fact, that although communal orientation involves being attentive and responsive to the needs of others, the motivation to follow a communal rule of relating may be either selfless or selfish. In a related vein, others have argued that among individuals of particular cultures (e.g., people from India), ostensibly selfless, other-directed behavior is not necessarily perceived as antagonistic to achieving personal rewards (Miller, 1995, 1997; Miller & Bersoff, 1992, 1994). The implication here is that other-oriented, seemingly selfless behavior may at times be enacted to provide personal satisfaction.

In our studies, then, power-primed communals' responsible behavior may not have been entirely selfless in that these individuals may have acted in part out of, for example, a desire to fulfill a personal sense of duty or obligation. This would suggest that the responses of both power-primed communals and exchangers in our studies may have been driven partly by an overriding, and not purely selfless, wish to adhere to particular norms of relating to others. This possibility may help make sense of our failure to find a difference between communals and exchangers in their responses to the pair of self-interest items included in Study 3. Despite their distinct power-goal associations, communals and exchangers may have derived similar personal satisfaction from acting in line with these associations. This line of speculation warrants future empirical attention.

Short- versus long-term effects of power. Future research might also consider temporal aspects of the effects of power. In the present studies, we were able to capture some of power's effects by exposing participants to power-related stimuli, which presumably activated the concept of power. However, such activation is relatively short-lived, thus limiting any conclusions about our effects to the short-term. Would these effects hold over the long-term? Would they be exacerbated or curtailed over time? Such questions are of considerable relevance to real-world settings and have begun to be examined (Lee-Chai & Bargh, 1999). And, insofar as people are relatively more likely to be conscious of power that they hold over the long- versus short-term, research examining the effects of power longitudinally would speak to the issue raised earlier regarding the extent to which the positive and negative effects of having power-related cognitions, which were the focus of the present studies, are similar to the effects of explicitly having or holding a position of power.

Concluding Remarks

The present studies add to the growing social-psychological literature on power (e.g., Bugental et al., 1997; Fiske, 1993; Pryor et al., 1993). In our work, we focused on the effects of power, conceptualizing them in terms of power-goal mental associations. Our social-cognitive approach moves beyond viewing power as a simple situational variable, one that affects all individuals in the same manner, to a Person \times Situation framework that leaves room for moderating variables of the positive and negative effects of power. Our research clearly shows that relationship orientation is an important moderator of the effects of power, presumably because of the distinct power-goal associations communally versus exchange-oriented individuals possess. Future research on the nature and role of power-goal associations would seem to be critical given that our everyday social encounters are rich with cues that signal who has power and who does not.

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