

INFLUENCE OVER OBSERVERS OF STRUCTURAL POWER: An Experimental Investigation

Robb Willer*

Cornell University

Lisa Troyer

Michael J. Lovaglia

University of Iowa

Research in network exchange theory and status characteristics theory that distinguishes power from influence has proven productive, but leaves open the question of whether a causal relationship exists between these two central, sociological concepts. Past research has found that structural power in exchange increases expectations for competent performance of the power user on a subsequent cooperative task. However, once the power advantage has been removed, previous research has failed to find increased influence of power users, perhaps because those subjected to power use react negatively to perceptions of the high-power actor as selfish or greedy. In society, the results of power used on relatively few people can be observed by many who may not react negatively to the power use because they are not directly exploited. Thus we predicted that observers of power processes would form high expectations for the competence of, and be influenced by, power users. An experimental study supported the predictions: A partner who had been in a high-power position had more influence over observers than did a partner who had been in a low-power position. An interaction was found such that the high-power partner had more influence over observers of power in strong-power networks, but not in weak-power networks.

INTRODUCTION

The same people in a society generally hold power and command prestige that allows them to exercise influence without necessarily using their power (Mills 1956). Theorists from Weber (Gerth and Mills 1958) to Homans (1974) have proposed that power increases prestige and the influence that results. Despite the confluence of power and influence in society, how power might produce influence remains unclear. Power use often produces negative reactions in those on whom it is used, leading them to reject the influence of the power user (Brehm 1966; Brehm and Brehm 1981). Why then are the powerful held in such high regard when those subjected to power react negatively?

Exchange, attribution, and expectation states theories have been used to predict that power use will produce expectations of increased competence for the power user that

*Direct all correspondence to Robb Willer, Department of Sociology, Cornell University, Ithaca, NY 14850, e-mail: Willer@cornell.edu

could increase influence (Lovaglia 1994). However, demonstrating under controlled conditions that power use can produce greater influence has proven difficult. A series of studies has shown that once the power is removed, a person who had been powerful has no more influence over someone subjected to power than does a person who had been less powerful (Lovaglia 1995), perhaps because negative emotional reactions to power use counter the influence that would otherwise result (Lovaglia and Houser 1996; Willer, Lovaglia, and Markovsky 1997).

In society, the increased influence of the powerful may stem from the complex nature of social interaction. Society consists of more than power users and those subjected to their power. For example, those with economic power use it to gain favorable exchanges and build wealth, while the influence the wealthy enjoy rests on the high opinions of mostly observers of their wealth accumulation that far outnumber those with whom they directly exchange. That is, most in society can observe the power of economic elites without being directly subjected to it. We propose that the observation of power, rather than the experience of it, may increase the influence of power users.

To investigate the relationship between power and influence we use methodology and concepts from a theory of power, network exchange theory (Markovsky, Willer, and Patton 1988), and a theory of status and influence, status characteristics theory (Berger, Fisek, Norman, and Zelditch 1977). Network exchange theory predicts the results of power use in networks of self-interested exchange actors, while status characteristics theory describes how status and performance expectations affect influence in collectively oriented task groups. After briefly describing a theory linking the observation of power to influence over observers, we then present results of an experimental test of its predictions.

Defining Power and Influence

Power and influence are fundamental terms in sociology that have been used in many ways. Narrowly limiting definitions may necessarily neglect some aspects of a fundamental concept, but allows useful analysis and empirical tests.

Willer, Lovaglia, and Markovsky (1997:573) define *power* as the “structurally determined potential for obtaining favored payoffs in relations where interests are opposed.” In their research and ours, power is the capacity—derived from a position in the social structure—to reward or penalize others. The proposition that power can produce influence requires nonoverlapping definitions of the two concepts. Thus, we can neither (like Wrong 1979) view power as intended or effective influence, nor (like French and Raven 1968) define power in terms of influence.¹

We define *influence* to occur when a person’s opinion or behavior changes to conform to the suggestion of another without the threat of punishment or the promise of reward. Deference, then, is the obverse of influence as an individual defers to one who has influence. For Zelditch (1992:995), “what distinguishes power is that it involves external sanctions. . . . Influence, on the other hand, persuades B that X is right according to B’s own interests.” Influence relies on advice while power relies on sanctions (Mokken and Stokman 1976). Narrow definitions of power and influence such as these have facilitated formal theory and systematic research.²

Explaining How Power Produces Influence

Willer et al. (1997) draw on network exchange theory and status characteristics theory to show theoretically how a power advantage can produce influence even after the power advantage has been removed. Their theoretical argument begins by observing that power use produces rewards and resources (Willer and Anderson 1981). This follows directly from the definition of power as the structural capacity to gain favorable-exchange outcomes. Next, the rewards and resources produce expectations of competence (Berger, Fisek, Norman, and Wagner 1985; Ridgeway 1991). Research on the correspondence bias (Gilbert and Malone 1995) and the just-world hypothesis (Lerner 1980) suggest this proposition that wealthier individuals will be assumed by others to be more intelligent and capable than their poorer counterparts. Last, expectations of competence produce influence in task groups where competence is assumed to result in effective contributions to group goals (Berger, Cohen, and Zelditch 1972; Ridgeway 1982).³

While our theoretical development suggests that structural power can lead to influence, a countervailing process tends to produce negative reactions to the power user, especially among those on whom power is used (Brehm 1966; Brehm and Brehm 1981), and these negative reactions tend to reduce influence (Lovaglia and Houser 1996). The counterbalance of competence expectations and negative reactions to power use result in no net gain in influence for the powerful over those subjected to power use (Lovaglia 1995). However, power might well increase influence if negative reactions, such as attributions of greed and selfishness to the power user, were reduced (Willer et al. 1997). This reasoning is represented in Figure 1.

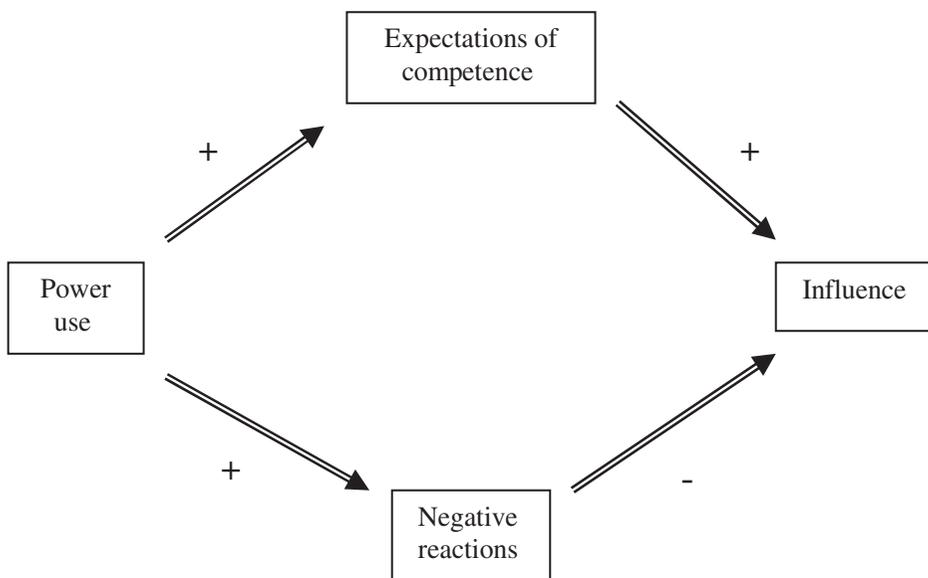


FIGURE 1. The Effect of Power on Influence Mediated by Expectations of Competence and Negative Reactions to Power Use.

In an experimental setting where a partner used power directly on participants, Lovaglia (1995) found that power use increased participants' expectations for the competence of the partner. However, power use did not increase the influence of the partner. Similarly, Ridgeway (1982) found that individuals could increase their influence only if they appeared group-motivated. Power use may be perceived as selfish or greedy (the opposite of group-motivated) by those subjected to it. It's possible that perceptions of low group motivation prevented power users from increasing their influence.

In this research we look to observers of power use to see if power can generate influence. The negative reactions of observers to power use should be tempered by their distance from the phenomenon, and the fact that they are not directly disadvantaged by power use. Thus, although observers may react negatively to power users they perceive as selfish or greedy, they should not do so to the same extent as victims of power use. We propose that observers of power will expect increased competence from the power user, but will not have negative reactions to power use strong enough to negate the influence that usually results from high expectations of competence. Our first two hypotheses follow.

Hypothesis 1: Observers of power use will form greater expectations of competence for a partner whom they observed to be high in power than they will for a partner whom they observed to be low in power.

We further predict that observers of power will be more influenced by the power user.

Hypothesis 2: Observers of power use will be more influenced by a partner whom they observed to be high in power than they will be by a partner whom they observed to be low in power.

The degree of power use may also affect influence. Markovsky, Erger, Lovaglia, Skvoretz, and Willer (1993) describe exchange networks characterized by two different kinds of power: strong-power networks and weak-power networks. In strong-power networks, low-power positions bid against each other for the opportunity to exchange with a high-power position. Over a series of exchange opportunities, high-power positions in strong-power networks gain nearly all available resources. For example, in the simplest strong-power network, the three-actor line (3-line): A_1-B-A_2 , A_1 may exchange with B , and A_2 may exchange with B , but A_1 may not exchange with A_2 . If the network permits B to exchange with only one of the A positions at a time, then B is in a position to exclude one A from a profitable exchange. A actors eventually offer B nearly all of the profit available in the strong-power 3-line.

In contrast to strong-power networks, a high-power position in a weak-power network cannot use power without incurring costs (Markovsky et al. 1993). Power differences in weak-power networks stabilize such that a high-power position gains only moderately more resources than does a low-power position. For example, in the simplest weak-power network, the four-actor line (4-line): $A_1-B_1-B_2-A_2$, the B actors may exchange with either an A or the other B , but not both. The B positions can exclude A positions from exchange. To avoid exclusion, A actors offer B actors a little more profit to avoid being left out. But because the B actors can expect no more than an equal share of

the profits from each other, A actors need only offer a little more than half the profit to always be included in exchange. Thus resource differences between A and B actors remain moderate in the weak-power 4-line.

We have proposed that power use produces expectations of competence that can increase influence, but also negative reactions that can decrease influence. In strong-power networks, power use that produces extreme differences in resources may increase expectations of competence for a person in a high-power position, increasing influence above that expected of a person in a high-power position in a weak-power network. Alternatively, the extreme disparity of reward in strong-power networks may increase negative reactions, such as attributions of selfishness and greed that reduce influence. Thus the more nearly equal resource differences produced in weak-power networks may result in more influence for a high-power person than would occur if observers watched power use in a strong-power network.

OBSERVERS OF POWER IN STRONG-POWER AND WEAK-POWER NETWORKS

We designed an experimental setting to test our prediction that differences in power will produce differences in influence over observers. The experiment has two phases. In the observation phase, participants watch power use in a network exchange setting. Then, in the influence phase, participants work on a cooperative task with one of the people they observed, either the person who had been high power or low power in the exchange network. We measure influence with power kept equal between participant and partner working on a collective task, allowing us to compare the influence of a person who was observed to have high power with that of low power. In this way, we demonstrate power in an exchange setting that is consistent with the scope of network exchange theory, and measure influence in a setting that is consistent with the collectively oriented task setting prescribed by the scope of status characteristics theory.

Participants observe exchanges in one of two exchange networks, either a strong-power 3-line network or a weak-power 4-line network. The experiment then, is a 2×2 factorial, two types of network power (strong or weak) crossed with two levels of partner's observed power (high or low). All other aspects of the study were controlled across conditions.

Participants

Ninety-six female participants were recruited from large, introductory classes at a state university and randomly assigned to the conditions of the experiment.⁴ Seven participants were excluded from analysis because they suspected that the other participants were not real and reported very low levels of collective and/or task orientation, a relatively small number (Harrod 1980; Moore 1985; Stewart and Moore 1992).

Designing Observed Power in Phase 1

Participants observed an exchange network characterized by either weak or strong power. Participants watched exchange negotiations on a computer terminal that dis-

played offers, counteroffers, and acceptances over five rounds of exchange. Participants were informed that they would observe exchanges between other female participants in an exchange network (either the 3-line or 4-line) and evaluate the negotiations of two of the people in that network as they attempted to divide a profit pool: One (labeled Orange) occupied a high-power position in the exchange network while the other (labeled Green) occupied a low-power position. To help them understand Phase 1, participants were given a sheet outlining the structure of the exchange network they would observe. In fact, negotiations were preprogrammed such that all participants saw the same offers, counteroffers, and acceptances for either the strong-power 3-line or the weak-power 4-line network. The 3- and 4-line network simulations were programmed to reflect the actual mean exchange rates observed in past research.

Participants were given special note sheets and asked to take careful notes on each round of exchange to use in their evaluations of the exchange partners. After several rounds of negotiation and exchange were observed, participants evaluated both the high-power Orange and low-power Green exchange partners in terms of (1) their success in acquiring resources through exchanges, (2) their effectiveness as negotiators, and (3) their general business ability. Responses to these items represent participants' expectations for the competence of the partner, from success at the specific task observed to more general success in an occupation.

Measuring Influence in Phase 2

Participants worked on a collective task with one of the programmed negotiators from Phase 1.⁵ The collective task tested a fictional ability called "Contrast Sensitivity." Contrast Sensitivity was a standard collective task capable of measuring influence that was used in many tests of status characteristics theory (Moore 1965, 1968; Ofshe 1968; Berger et al. 1977; Berger, Wagner, and Zelditch 1985; Foschi, Lai, and Sigerson 1994; Kalkhoff and Barnum 2000; Troyer and Younts 1997).

During the Contrast Sensitivity task, participants and their (fictional) partners made initial decisions on which of two checkerboard designs on the screen contained more white area. The two designs, in fact, contained approximately equal amounts of white space, making the Contrast Sensitivity task an ambiguous binary-choice problem. The participants saw the choice made by their partner and were given the opportunity to change their choice to agree with that of the partner, or to stay with their original decision. Partners were programmed to disagree with the initial choice of the participant on 20 of 25 trials. We employed an operational definition of influence as any case where participants changed their initial answer to conform to that of their partner. The main dependent variable of the study—rate of influence—was the proportion of trials in which participants decided to switch from their initial decision, submitting to the influence of the partner.

After the Contrast Sensitivity task, participants were asked questions to determine collective and task orientation in Phase 1.

Procedure

Participants were seated alone and completed a computerized tutorial orienting them to the exchange setting they would observe in Phase 1. They then observed negotiations in a 4-line exchange network or a 3-line network depending upon the condition to which they were randomly assigned. Offers, counteroffers, and acceptances were listed on a computer screen with ostensibly new events added to the bottom of the screen in "real time." To increase plausibility, pauses were included between rounds as the simulated other participants indicated they were ready to continue to the next round.

Participants were instructed to take notes on each round of exchange for use later in making evaluations of the other participants. In all conditions, participants were told to focus their attention on two focal participants who they would be asked to evaluate later, one high power (Orange) and one low power (Green). Consistent with this, events involving Orange and Green were presented in boldface print in the simulated exchange negotiations.

After Phase 1, participants answered questions evaluating how *successful* and *effective* they perceived Orange and Green to be during the exchange activities as well as how much general *business ability* they thought the simulated negotiators had. Thereafter, participants were informed that they had been randomly assigned by the computer to work with one of the exchange partners they had observed in Phase 1. Participant and partner would work together in Phase 2 on a Contrast Sensitivity task (see Troyer 2001).

Participants read computerized instructions and participated in a brief tutorial designed to orient them to the Contrast Sensitivity task. Following the instructions, participants worked on 25 trials of the task with their simulated partners. On each trial, participants indicated which of two checkerboard figures contained more white area. Participants were then shown their partners' initial answers and asked to submit a final answer.

After the task, participants responded to computerized items evaluating collective and task orientation and emotional reactions to the earlier exchange activities.^{6,7} Finally the researcher checked for participants' suspicion that other participants were not real, sensitively debriefed them with respect to the true purposes of the study, and thanked and paid them for their participation.

RESULTS

Participants in the Contrast Sensitivity task of Phase 2 reported paying significant attention to their partner's input ($M = 65.27$, $SD = 18.02$).⁸ Participants also reported caring whether they got the right answers in the Contrast Sensitivity task ($M = 67.64$, $SD = 19.30$).⁹ These data indicate that participants were collectively oriented and motivated to succeed at the task, respectively. Collective and task orientation are scope requirements of status characteristics theory (Berger et al. 1977).

We used participants' assessments of the high-power partner (Orange) and the low-power partner (Green) after observing exchanges in Phase 1 to determine whether participants were aware of differences in resource acquisition for the two exchange partners.

TABLE 1. Participant Ratings of Observed High-Power and Low-Power Exchange Partners

| | High Power | | Low Power | | t | p |
|-------------------------------|------------|---------|-----------|---------|-------|-------|
| | Mean | (SD) | Mean | (SD) | | |
| Strong-power network (N = 44) | | | | | | |
| Success | 91.34 | (13.07) | 27.73 | (26.92) | 12.57 | <.001 |
| Effectiveness | 89.11 | (15.93) | 28.36 | (23.89) | 13.29 | <.001 |
| Business ability | 76.66 | (19.32) | 42.25 | (25.89) | 6.75 | <.001 |
| Weak-power network (N = 45) | | | | | | |
| Success | 86.47 | (12.57) | 28.36 | (25.26) | 11.70 | <.001 |
| Effectiveness | 72.36 | (21.75) | 32.00 | (29.14) | 6.44 | <.001 |
| Business ability | 67.80 | (20.77) | 45.80 | (22.13) | 3.80 | <.001 |

Note: All items were measured on a 100-point scale. For first two items, 0 = not at all successful/effective; 100 = extremely successful/effective. For business ability, 0 = no business ability; 100 = a great deal of business ability.

Table 1 shows participants' ratings of both exchange partners' success in acquiring resources through exchange, broken down by network type. In both networks, the high-power partner was rated significantly higher than the low-power partner.

Table 1 also gives observers' more general assessments of the competence of exchange partners. In both strong-power and weak-power networks, the high-power partner was perceived to be a more effective negotiator than was the low-power partner. Further, those observed using power in a high-power position of an exchange network were perceived to have more general business ability than those observed in a low-power position, again for both strong and weak power. As would be expected, the magnitude of the effect diminishes as the rated attributes become more general. The biggest difference between ratings of the high-power and low-power partner in both network types is for success on the specific task observed. Next biggest is the difference between ratings for both types on effectiveness as a negotiator in the exchange setting. Smallest but still highly significant is the difference between ratings of the two on general business ability. Thus, in support of Hypothesis 1, our results suggest that participants formed expectations for the general competence of the exchange partners based on the power of the partner's position in the exchange network.

Hypothesis 2 predicted that a high-power partner would have more influence than would a low-power partner in both strong-power and weak-power settings. Table 2 shows a regression analysis of the effects of power (high = 1, low = 0), network type (strong = 1, weak = 0), and their interaction on the rate of influence of the partner.¹⁰ High power is predicted to increase influence.

As predicted, the coefficient for the partner's power is positive and significant, indicating that a high-power partner had more influence over observers than did a low-power partner. Network type had no significant effect on influence and none was predicted. However, the interaction of power and network type did have a marginally significant

TABLE 2. Regression Coefficients (and Standard Errors) with Rate of Influence of Partner as Dependent Variable

| Variable | <i>b</i> (se) |
|----------------------|----------------|
| High power | .054*** (.030) |
| Network type | -.025 (.030) |
| Power X network type | .029* (.015) |
| R ² | .082 |

^aOne-tailed test in predicted direction.

* $p \leq .05$, ** $p \leq .10$.

Note: $N = 89$.

TABLE 3. Influence Rate in a Cooperative Task of Partners Previously Observed to be High Power or Low Power in an Exchange Setting

| Observed Exchange Network Type | High Power | | Low Power | | <i>t</i> | <i>p</i> |
|--------------------------------|---------------|----------|---------------|----------|----------|----------|
| | Mean (SD) | <i>N</i> | Mean (SD) | <i>N</i> | | |
| Strong-power network | .4909 (.1000) | 22 | .3795 (.1403) | 22 | -3.04 | .002 |
| Weak-power network | .4587 (.1505) | 23 | .4614 (.1647) | 22 | .06 | .955 |

Note: $N = 89$.

effect ($p = .060$, two-tailed), indicating that the advantage of the high-power partner was not consistent across strong-power and weak-power settings.

Table 3 shows that the high-power partner was more influential than the low-power partner only in the strong-power setting. After watching exchanges in the strong-power setting, observers were influenced more often by the previously high-power partner than they were by the previously low-power partner ($t = -3.04$, $p = .002$, one-tailed test used for a hypothesized result in the predicted direction). However, after observing exchange in a weak-power setting where the exchange rate was more nearly equal, observers were influenced equally by a high-power or a low-power partner in the cooperative task. The influence rate was about .46 for participants working with a partner whom they had observed in a weak-power exchange setting, whether that partner had been high or low in power. Power use substantially increased influence in the strong-power setting but not at all in the weak-power setting.

Discussion and Further Analysis

Why the high-power and low-power partners in the weak-power setting had equal influence on observers is puzzling. In the weak-power setting, partners exchanged at about a 14 to 10 rate. The high-power partners in the center of the 4-line network consistently gained more resources from exchange than did their low-power partners at the ends of the 4-line. While the difference in exchange rate in the 4-line was less than that in the strong-power 3-line (typically about 21 to 3), the consistent advantage of the high-power

partner in the weak-power network should have produced higher influence for the high-power partner, if only slightly higher, but it did not.

We checked for evidence that observers of weak-power use formed different expectations for the competence of a high-power actor than for a low-power actor. Returning to Table 1, among participants assigned to observe the weak-power exchange network, the high-power actors were viewed as more successful, effective, and higher in business ability than the low-power ones. These results suggest that observers did form higher expectations for the competence of the high-power partner than they did for the low-power partner, as predicted. However, these expectations of competence did not affect the partner's influence.

The lack of influence of the high-power partner in the weak-power setting is surprising given the evidence that influence increases with expected competence and decreases with negative reactions to extreme power use (Lovaglia and Houser 1996). We expected observers to react more negatively to the extreme differences in resources apparent in the strong-power setting, where power users were expected to look greedier and more selfish, than to the moderate differences in the weak-power setting. Nonetheless, in the weak-power setting, expectations for the high-power partner's high ability did not produce increased influence (Table 3). A possible explanation is that negative reactions to power use (and corresponding sympathetic reactions to the low-power participant) in the weak-power exchange setting interfered with the influence of the high-power partner during Contrast Sensitivity.

Attributions of Selfishness and Greed: A Post Hoc Analysis

The notes that participants made while observing exchange in Phase 1 sometimes gave participants' immediate reactions to the high-power and low-power exchange partners individually. In examining participants' note sheets, we noticed references to greed or selfishness of one of the observed partners. Following Ridgeway's (1982) theory that a group member perceived to be self-motivated will gain less influence than one perceived to be group-motivated, we systematically searched participants' note sheets for references to the selfishness or greediness of exchange actors they observed. If participants more often perceived the high-power partner to be selfish or greedy in the weak-power setting than they did in the strong-power setting, then these negative reactions might explain the relatively lower influence of the high-power partner compared to that of the low-power partner in the weak-power setting. Because we designed this analysis to investigate an unexplained result after completing our formal hypothesis tests, our findings will be at best suggestive of future research.

A total of 85 note sheets were collected. Twelve observers of the weak-power 4-line (26.6 percent) spontaneously wrote that the high-power partner was "greedy" or "selfish" compared to only two observers of the strong-power 3-line (4.5 percent). Although the high-power partner in the 3-line used power more extensively to gain resources than did the high-power partner in the 4-line, the high-power partner in the 4-line was more often referred to as greedy or selfish (chi-square with one degree of freedom = 7.143, $p = .008$). Although these data are not conclusive, they are suggestive. Participants were not cued to

focus on the degree of self-motivation or group-motivation of the exchange partners, yet significantly more participants observing the weak-power setting noted that the high-power partner was greedy or selfish than participants observing the strong-power setting.

In addition to creating more negative reactions to power use, the use of weak power also appears to have created somewhat lower expectations for competence than strong power use did. Among participants interacting with high-power actors in Phase 2 of the study, high-power actors from the strong-power network were viewed as more successful ($t(44) = 3.78, p < .001$), effective ($t(44) = 5.02, p < .001$), and higher in business ability ($t(44) = 2.61, p = .012$) than high-power actors from the weak-power network. Thus, although weak power use created an advantage in perceived competence for a high-power actor vis-à-vis a low-power actor, the perceived competence of strong-power users was still higher.

Taken together, these results suggest that power use in the strong-power network created both (1) higher expectations of competence, and (2) less attributions of selfishness or greed than did power use in the weak-power network. These results help explain why power use in strong-power networks engendered a subsequent influence difference while in weak-power networks did not. However, this analysis is post hoc and should be subjected to further research. Additionally, it leaves open significant questions such as, why would strong power use produce *less* perceived greed and selfishness than weak power use? We explore this issue and various alternative explanations for our results in the conclusion.

CONCLUSION

How powerful people gain respect and influence in society is an enduring mystery and difficult to reproduce under controlled conditions. We investigated whether a power advantage could increase influence by altering the perceived competence of power users in the eyes of observers. If observers of power form expectations for the increased competence of power users, and if observers of power do not react as negatively as do those directly subjected to it, then power users may gain influence among observers. It would follow that power used on a relative few but observed by many would increase the overall influence of a power user.

We can conclude from both influence and self-report results that participants formed expectations for the competence of a partner based on observations of her prior power use in an exchange network. Our results further suggest that the larger power differences in the 3-line produced influence differences between the high- and low-power partners, while the small power differences in the 4-line produced no influence differences between the high- and low-power partners.

The results comparing strong power and weak power remain inconclusive. Notes taken by participants while they observed the exchange situation suggest that more participants may have perceived the high-power partner to be selfish or greedy in the weak-power network than in the strong-power network. In addition to differences in exchange rates between high-power and low-power negotiators, the two network types differed in

that participants were able to observe two high-power positions in the weak-power 4-line, but only one high-power position in the strong-power 3-line. Thus network structure (3-line versus 4-line) rather than power type (strong power versus weak power) may have produced the effect. We suspect that this anomaly could have occurred because observers of the 4-line were able to compare the exchange behavior of two high-power partners while observers of the 3-line saw only one high-power partner. Perhaps seeing two high-power partners in the exchange setting made apparent their structural advantage. Thus high-power partners in the 4-line appeared to be taking unfair advantage.

Further alternative interpretations of the note-sheet data are also possible. It could be that high-power partners from the weak-power network were perceived as greedier than high-power ones from strong-power networks because they did not necessarily have to exclude the low-power actor from exchange, but chose that bargaining strategy anyway in an apparent effort to gain higher payoffs. In strong-power networks (such as the 3-line simulated in the present study) high-power actors are forced to exclude at least one low-power actor every round of exchange. Thus, exclusion in the strong-power network may have been attributed to the structure, while observers may have attributed greed or selfishness to the high power actor from the weak-power network for apparently *choosing* to exploit her exchange partners.

It is also important to note that the influence difference we found for strong-power actors, but not for weak-power actors, may have been driven primarily by perceptions of the low-power actor from the strong-power setting. Note that in Table 3 the most discrepant mean influence rate of the four conditions is that of the low-power actor in the strong-power setting. Thus, complete explanations for the patterns of influence found in the study should take into account the uniquely low influence of the low-power actor in the strong-power setting. But why did the low-power actor in the strong-power setting achieve so little influence in the group task of Phase 2?

One apparent reason is that the low-power actor in the strong-power setting earned very little in exchange in Phase 1 of the study, approximately three points in each round that they were included in exchange. Since low-power actors in the strong-power setting were only included each about half the time, earning very little each round, it is not surprising that they would be viewed as totally unsuccessful in Phase 1 by observers not aware of the dynamics of exchange networks. It is also possible that observers were unimpressed by the actor's efforts to bid lower and lower to be included in exchange. Though offering the high-power actor competitive exchanges is a practical way to gain inclusion in exchange, observers may have been critical of the strategy, perhaps perceiving it as self-defeating. This might also help explain why high-power actors in the strong-power network were not seen to be as greedy as those of the weak-power network; it could be that the low-power actors, and their competitive bidding for inclusion, were viewed as being primarily responsible for the large exchange differences.

To better isolate the relative effect on influence of observing a strong-power or weak-power partner, future research could control network structure while manipulating exchange differences. Some observers would see the extremely unequal exchanges typical of strong power while other observers would see the more equal exchanges typical of weak

power; the only difference would be the disparity in resources acquired by high-power and low-power positions. Such a study would investigate the influence of people in high-power and low-power positions in networks where the only difference observed between positions is the disparity in resources acquired.

In the present research we showed that under controlled conditions power users could gain influence over observers. However, negative reactions to power use, particularly negative attributions of selfishness and greed, mediate the effects of power use on influence. Future research could more fully investigate the proposition that people react less negatively to power use the less directly they are related to the person being subjected to it. Specifically, individuals' negative reactions might be greatest when power is used on them, somewhat reduced when they observe power being used on an in-group member, and least when they observe power being used on an out-group member. Such research could provide a structural explanation for scapegoating behavior as low-status group members vie to increase their status within the group by targeting outcasts for abuse.

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NOTES

¹See Willer et al. 1997 for a review of the varied conceptions of power in sociological research.

²See for example, Cook et al. (1983), Markovsky et al. (1988), Berger et al. (1992), Skvoretz and Willer (1993), Lovaglia et al. (1995), Burke (1996), Molm (1997), Lawler and Yoon (1998), Molm, Peterson, and Takahashi (1999), and Thye (2000).

³A mixed competitive exchange and cooperative task situation raises issues of scope. Status characteristics theory has been shown to operate in such situations (Cohen and Zhou 1991; Podolny 1993). Further, because influence is predicted in a cooperative task after power differences have been removed, status characteristics theory should apply. This position differs from that taken by Willer et al. (1997).

⁴We used women participants because there were more available women than men in the participant pool. We have not replicated the study using men because we had no theoretical basis for predicting a gender difference in this setting.

⁵The collective task of Phase 2 had no power differences or opportunities to sanction one's partner. Participants were told before the study that in Phase 2 they would work on a cooperative task.

⁶To avoid creating a perceived experimenter demand for negative emotional reactions, emotions measures were administered at the end of the study.

⁷Emotions items did not significantly differ by condition. This may have been because the items asked for reports of global emotions, not emotions directed toward the exchange actors. These measures are not discussed further.

⁸Item based on a 100-point scale ranging from "no attention" to "a great deal of attention."

⁹Item based on a 100-point scale ranging from "did not care" to "cared a great deal."

¹⁰Analysis of Variance (ANOVA) techniques produce similar results.

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