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Perceived Relative Power and its Influence on Negotiations

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Abstract

In an experimental study, we investigate perceived relative power in negotiations and its effect on the distribution of resources and the integrativeness of agreements. We contrast perceived relative power with the objective individual level measure of power often used in past research: the parties' alternatives to a negotiated agreement. We found that alternatives affected the distribution of outcomes, while perceived relative power and alternatives affected the integrativeness of outcomes. We found that negotiating pairs who perceived a smaller difference in relative power reached agreements of greater integrativeness than pairs who perceived a greater power difference, even after controlling for alternatives and aspirations. We explore the implications of treating power in negotiations as a perceived and relational construct.

Key words: alternatives, aspirations, negotiation, perceptions, power

Power imbalances are evident in most relationships, whether at the interpersonal level as between a boss and her employee, at the inter-organizational level as between Microsoft and the small start-ups it acquires, or at the international level as between the US and Mexico. The power imbalance in these relationships stems from the asymmetry in dependence between the parties, which contributes to an asymmetry in influence between the parties (Emerson 1962). For example, in an employment negotiation between a supervisor and a low-skill applicant, the supervisor has a number of resources that the prospective employee needs, such as money, benefits, vacation time, etc., and there are likely to be numerous applicants. In contrast, the applicant has only one resource the employer needs, labor, and may have few alternative opportunities for employment. The relative dependency of the applicant on the employer may limit the information sharing necessary for finding integrative solutions, and may result in the applicant accepting terms of employment favorable to the employer.

Rubin and Brown (1975, p. 260), in their seminal book on The Social Psychology of Bargaining and Negotiation, assert that "mutual social influence . . . represents the fundamental strategic issue in bargaining". To reach an agreement, each party needs to convince the other to make a concession that he or she would not have made absent the influence of the other. In an asymmetric relationship, in which the power balance between the parties is unequal, the relatively high-power party is likely to have his or her interests addressed during a negotiation, while the interests of the lower-power party may be ignored. This

dynamic has implications not only for distribution of outcomes, which is likely to favor the more powerful party, but also for integration. Without an exploration of the interests of both sides, opportunities for creating value in unequal-power relationships may be lost. In this study, we explore the effect of relative power within a negotiation on both the distribution of resources and the integrativeness of outcomes.

Empirical evidence on the effects of power asymmetries on the integrativeness of negotiated agreements is mixed. Some studies confirm the above intuition that equal (relative to unequal) power leads to greater integrativeness (Mannix and Neale 1993; McAlister, Bazerman, and Fader 1986). Other studies find equal power is associated with relatively lower integrativeness (Sondak and Bazerman 1991), and yet other research finds no effects for power symmetry on integrativeness (Pinkley, Neale, and Bennett 1994). In all of this research, power within a negotiation has been manipulated by varying either the value of the best alternative or the number of alternatives. When power is manipulated through the value of the best alternative, the sum of the parties' alternatives is strongly associated with integrativeness. This result is not surprising – the parties need to surpass their alternatives in order to reach agreement (Ben-Yoav and Pruitt 1984). Number of alternatives has also been shown to have important effects on negotiated outcomes (McAlister, Bazerman, and Fader 1986), and these effects are at least partially mediated by aspirations (Mannix and Neale 1993).

Although manipulations of power differed in the studies described above, in each of these studies, the individual parties were aware of their own alternatives but not those of the other party. These studies do not address how the level or number of one's own alternatives might influence a party's perceptions of his or her power over the other, given the participants have no information regarding the other's alternatives. This critique does not invalidate the basic findings of past research; parties' alternatives no doubt have an effect on negotiation outcomes. What is in question is whether the results from these previous studies are a function of power – the dependence the parties feel towards one another – or a function of individual-level anchors and aspirations stemming from the manipulated alternatives.

Power, as put forward by Emerson (1962), is driven by the difference across alternatives. Following Emerson's logic, the power of any one party cannot be assessed by considering that party's alternatives in isolation – it can only be assessed by looking at the relative dependence of the parties on one another. Furthermore the comparison process that people engage in when determining their power with regard to another person takes place at the level of individual perceptions – people compare their dependence on their respective other with what they believe is their respective other's dependence on them (Blau 1964; Thibaut and Kelly 1959). In the study presented here, we explicitly consider perceived relative power and compare that to objective and individual-level resources. By examining the perceived and relative nature of power, we hope to shed light on past inconsistencies in findings regarding power and negotiation outcomes.

Defining power in negotiations

Within social psychology, views on the determinants of power fall into two camps: individualistic (Frost 1987; House 1988; McClelland 1975; Pfeffer 1992; Winter 1973) and

relational (Blau 1964; Emerson 1962; French and Raven 1959; Kanter 1977; Kelman 1958; Salancik and Pfeffer 1977). Individualistic notions of power focus on either a person's motivation to acquire power (House 1988; McClelland 1975; Winter 1973) or a person's individual traits, such as charisma, self-confidence and flexibility, which increase the likelihood of attaining positions of power (Frost 1987; Pfeffer 1992). Relational theories of power examine the relative influence one party has over another. According to relational theories of power, Party A has power over Party B to the extent that B is dependent on A (Blau 1964; Emerson 1962) for goal achievement (Kelman 1958) or problem solving (Kanter 1977; Salancik and Pfeffer 1977).

Relational theories of power vary with regard to whose perspective is considered – the target of influence, the influencing agent, or both parties. French and Raven's (1959) and Kelman's (1958) theories of power examine the power relationship from the perspective of the target of influence: why a person is influenced by another. In contrast, Kanter (1977) and Salancik and Pfeffer (1977) consider power from the perspective of the influencing agent: how one's situation within an organization or market affect the degree of influence one has over others. Finally, definitions of power derived from social exchange theory examine power from the perspective of both parties: how perceptions of relative dependency lead to relative influence within the pair (Blau 1964; Emerson 1962).

In light of Rubin and Brown's characterization of negotiation as fundamentally shaped by mutual influence, a social exchange approach, which includes both parties' perspectives, appears to be the most appropriate foundation for studies of power in negotiations. According to social exchange theory, a party who is less dependent on her counterpart than her counterpart is on her for an acceptable outcome has more power in the negotiation. Power between the parties becomes more balanced as the parties become more equally dependent on each other for some outcome.

Power, then, is determined by comparing A's dependence on B to B's dependence on A. But dependency is only partially revealed in objective comparisons between the parties. When the feature in question is socially and normatively determined – e.g., beauty, morality, or power – people evaluate themselves through subjective social comparisons with focal others (Festinger 1954; Thibaut and Kelley 1959; Ross and Nisbett 1991; Musseweiler 2003). When assessing one's power within a negotiation, the other parties at the table are the focal points of comparison; it is only relative to those others that the negotiator can assess his or her own power within the bargaining setting. Social contextual variables, past experiences, and expectations regarding future relationships affect the perceptions of relative conditions (Anderson and Berdahl 2002; Thibaut and Kelley 1959). Assessing one's power accurately serves a critical social function and awareness of the distinctions from and similarities with a counterpart allows people to navigate their social interactions smoothly as they are better equipped to predict how someone will behave toward them and to respond appropriately (Gill and Swann 2004).

Incorporating both perceptual and the relational features into the concept of power in negotiations, we follow Emerson (1962) and Thibaut and Kelley (1959) in defining power as:

> B has power over A to the extent that A perceives him-or herself as more dependent on B than B perceives him-or herself as dependent on A.

In our study, we contrast perceived relative power with three variables that have been treated as manipulations or measures of power in past research: the objective, individual-level resources each party brings to the negotiating table (alternatives); the perceptions of those individual-level resources (reflected in aspirations); and the objective relative power between the parties (differences across alternatives).

The role of perceived relative power in negotiations

Previous research on power in negotiations has focused largely on individual-level alternatives as the operationalization of power. Parties with objectively higher or more numerous alternatives have been shown to achieve greater individual gains than those with objectively lower or fewer alternatives (Mannix and Neale 1993). In addition, negotiations in which both parties have highly-valued outside alternatives are likely to result in more integrative outcomes than negotiations in which one or both parties have less-valuable outside alternatives (McAlister, Bazerman, and Fader 1986). But this work is largely uninformative regarding the question of power balance, i.e. the equality or inequality of parties' alternatives.

Aspirations have been proposed as the mechanism connecting alternatives to negotiated outcomes. Alternatives seem to trigger goals, such that parties within a negotiation aim to reach or exceed the value of the outside alternative. Mannix and Neale (1993) show that giving a high aspiration to a lower-power party (the party with fewer alternatives) in an unequal-power negotiation results in integrativeness that is equal to that produced when both parties have many alternatives (equal-power condition). In this study, the authors independently manipulated aspirations and alternatives, though research suggests that aspirations naturally derive from alternatives, such that higher alternatives lead to higher aspirations (Pinkley, Neale, and Bennett 1994; Sondak and Bazerman 1991). Mannix and Neale's results add to the body of research illustrating that anchors, regardless of whether they are presented as alternatives or aspirations, affect outcomes; higher anchors lead to higher gains (Zetik and Stuhlmacher 2002).

While the research on alternatives and aspirations explores individual-level sources of power, it provides little insight into the role of relative power. There has been an assumption in the negotiation literature that power symmetry should lead to greater integrativeness (Raiffa 1982; Zartman and Rubin 2000). Previous research examining this assumption concludes that the sum of the parties' alternatives affects integrativeness, but the relative value of alternatives does not (Ben-Yoav and Pruitt 1984; Pinkley, Neale, and Bennett 1994; Sondak and Bazerman 1991).

A process argument underlies the assumption that equality will lead to greater integrativeness: parties who share enough information to understand one another's interests are more likely to find value creating trades than parties who either do not share information or share information asymmetrically (O'Conner 1997; McGinn and Keros 2003). Integrative agreements result when parties communicate information regarding their own interests and attend to the information the other party provides (Weingart, Thompson, Bazerman, and Carroll 1990). Parties in equal power relationships are motivated to understand each other since they recognize that their own interests can be met only if the other party's interests are met too (Rubin, Pruitt and Kim 1994). In

an unequal-power relationship, higher-power parties lack the motivation to try to understand lower-power parties (Fiske 1993; Keltner and Robinson 1997) and lower-power parties are reluctant to communicate their interests (Kipnis and Schmidt 1983; Snodgrass, Hecht and Ploutz-Snyder, 1998). Consequently, unequal-power pairs are likely to be at a disadvantage when trying to reach integrative agreements, relative to equal-power pairs.

If power balance affects integrativeness of outcomes through the information exchange within a negotiation, what might explain the inconsistent findings presented above? In previous research examining power asymmetries and negotiation integrativeness, it is unclear how the parties perceived their relative power. Pinkley (1995) found that parties lacking information about their opponents' alternatives "filled in the blanks" and assumed that their opponents had similar alternatives to themselves. These findings suggest that parties' perceptions of the relative power they hold in a negotiation do not neatly correspond to objective conditions. Parties may assume they are in an equal-power relationship regardless of the objective difference between the alternatives.

Our understanding of the role of power in negotiations may be enhanced by disentangling the three distinct elements discussed above – alternatives, aspirations, and perceived relative power – and distinguishing between the effects on distribution and the effects on integrativeness. Our hypotheses draw from these distinctions. First, as shown in previous research, alternatives are likely to affect both distribution and integrativeness.

Hla: As the quality of a party's alternatives increase, individual payoffs are likely to increase.

Hlb: As the quality of the parties' alternatives increases, the integrativeness of the agreement is likely to increase.

These hypotheses reflect the effects of objective, individual-level resources on outcomes. Second, aspirations are also expected to affect both distribution and integrativeness:

H2a: As the aspirations of a party increase, individual payoffs are likely to increase.

H2b: As the joint aspirations of the parties increase, the integrativeness of the agreements is likely to increase.

These hypotheses reflect the effects of the parties' perceptions of their own individual level resources on outcomes. Third, as argued above, we expect perceived relative power to affect the integrativeness of agreements.

H3: As the perceived difference in resources increases, integrativeness of the agreements is likely to decrease.

This hypothesis reflects the effects of perceived relative power on outcomes. Because we conceive of our power variable at the relational level, we explore but do not hypothesize the effects of this variable on individual payoffs. We also test for and discuss the distinctions between the perceptions reflected in aspirations, and those reflected in assessments of relative power.

Method

Participants and design

One hundred twenty-four undergraduates from five schools in the Northeast United States participated in this experiment. Experimental sessions were run with 6 to 20 participants, depending on attendance rates. Participants were paid $15 dollars for taking part in the study, plus additional incentive pay based on the outcome of their negotiation. Within the negotiation scenario used in this experiment, possible payoffs to the negotiators ranged from $0 to $14,000 above their alternatives. In the experimental session, participants were paid $1 for every $1,000 earned in the negotiation.

The negotiation simulated a second-round job interview between a candidate and a recruiter (adapted from Neale 1999). A 2 × 2 [Recruiter's alternative: high (RH) or low (RL) X Candidate's alternative: high (CH) or low (CL)] between-subjects factorial design resulted in two cells in which power was objectively unequal between the parties, RH/CL ($n = 16$) and RL/CH ($n = 15$), and two cells in which power was objectively equal between the parties, RH/CH ($n = 17$) and RL/CL ($n = 14$). For both the Candidate and the Recruiter, a high alternative was worth $9,500 and a low alternative was worth $5,000 (above a baseline minimum). To control for possible status differences between men and women, participants were assigned to same-sex dyads (Male dyads = 24; Female dyads = 38).

To vary perceived relative power, participants were given information regarding their own alternative and the alternative of their counterpart. In low-alternative conditions, Recruiters/Candidates were told that their counterpart in the negotiation was their top choice and that their alternative was worth $5,000. In the high-alternative conditions, Recruiters/Candidates were told that they had another attractive alternative (applicant/job offer) worth $9,500 to them.

To manipulate knowledge of the other's alternative, participants were given general information about the other party and how the other party viewed them. Participants were not given the exact value of their counterpart's alternative. In the low other-alternative conditions, participants were told that the other party was unhappy with their alternative and thought of them as their top choice. Participants in the high other-alternative condition were told that the other party had a very attractive alternative that would be difficult to beat. Specific values for the counterparts' alternatives were not provided to the participants to heighten ecological validity, since people often have an idea of the worth of an opponent's alternatives, but rarely have complete, verifiable information about specific values placed on those alternatives.

Materials and procedure

After participants arrived, they were asked whether they knew anyone else in the experimental session. To ensure that all dyads consisted of strangers, people who knew each other were not assigned to the same dyad. Otherwise, participants were assigned randomly to a partner, a role, and an alternative (own X other-alternative) condition.

Participants had one-half hour to read and understand their roles and the issues under negotiation. To settle, participants had to reach agreement on each of five issues: salary, vacation time, bonus, insurance coverage, and moving expenses. The full scoring system is presented in the Appendix (Table A1). Participants were told how they valued each of the issues, but were not told their counterparts' valuations. Salary was a continuous issue (in dollars). The salary surplus available, i.e., the difference between the highest offer the company could make and the lowest offer the recruit would even consider, was $8,000. Possible outcomes on each of the other four issues were assigned monetary values, but were limited to a small number of discrete choices. The two parties differed in the values they placed on the discrete issues, making integrative trades possible. The recruiter valued vacation time and insurance coverage more than the candidate, and the candidate valued the bonus and moving expenses more than the recruiter. The four discrete issues were worth $9,600 jointly if the parties compromised on each issue (i.e., settled at the midpoint), but up to $14,400 jointly if the parties took advantage of all integrative trades.

A fully integrative agreement, one that took advantage of all possible trades, resulted in $22,400 ($8,000 salary + $14,400 across the discrete issues) available for distribution between the parties. Because the bargaining zone is bounded by the parties' alternatives, this provided a fairly large bargaining zone ($12,400) when both parties had low alternatives, a moderate bargaining zone ($7,900) when the alternatives were asymmetric, and a small bargaining zone ($3,400) when both parties had high alternatives.

After reading their roles and asking any questions, but prior to negotiating, participants completed questionnaires regarding their aspirations, their perceptions of power, and their understanding of the materials and possible payoffs. (These measures are described in detail below.) The experimenter then called each dyad one-by-one and led them to a private room to negotiate. Once a pair finished the negotiation, they recorded their agreement on a "contract" form included in the recruiter's materials. The participants then returned to the original room where they were debriefed and privately paid for their participation.

Measures

Individual alternatives were manipulated, as described above. The monetary values of the alternatives were used in the individual-level analyses. The sum of the parties' alternatives was used as the dyadic measure, "joint alternatives." Aspirations were measured through the pre-negotiation questionnaire. Participants were asked: "How much do you hope to achieve in this negotiation (i.e., your goal)?" The monetary value of the reported aspiration was used in individual-level analyses. The sum of the reported aspirations was used as the dyadic measure, "joint aspirations."

The measure of perceptions of relative power was collected in the pre-negotiation questionnaire. Participants were asked to rate on a scale from 0 to 100, "What is your bargaining power in this negotiation?" On the scale, 0 was labeled "my counterpart has all the power;" 50 was labeled "equal power;" and 100 was labeled "I have all the power." The dyadic measure, "perceived relative power," the operationalization of the degree of perceived power

balance/imbalance in the pairs, was the absolute difference between the parties' reported perceptions of power.

We included three control variables in our dyadic level analyses. While the difference in perceptions of power between ratings of, e.g., 70 and 90 are quantitatively equal to the difference between ratings of, e.g., 20 and 40; there may be important qualitative differences between negotiations in which both parties feel relatively powerful and those in which both parties feel relatively powerless. Bachrach and Lawler (1981) highlight this distinction in their theory of bargaining power, but do not provide clear predictions on how total power affects integrativeness. To control for total power, we include the sum of the power ratings in our dyadic analyses. To ensure that perceptions of relative power were not confounded with differences in aspirations, the absolute value of the difference between the reported aspirations, "difference in aspirations," was also included as a control variable. To control for objective differences in alternatives, we included a dummy variable, "objective relative resources," set to 0 when alternatives were equal (RH/CH or RL/CL) and 1 when the parties' alternatives were unequal (RH/CL or RL/CH).

Outcome measures were based on the individual payoffs reported in the participants' contract forms. The integrativeness measure was the sum of the participants' individual payoffs.[1]

Results

Four participants did not answer one or all of the pre-negotiation questions. These four observations were excluded from the analyses, leaving a total of 120 individuals and 58 dyads for the following analyses. Means, standard deviations, and pairwise correlations are presented in Tables 1 (individual-level variables) and 2 (dyadic-level variables). No statistically significant main effects were found for sex, nor were any interactions with sex statistically significant. The two statistically significant effects of role (candidate vs. recruiter) are noted below. All other analyses were collapsed across sex and role.

Table 1. Means and pair wise correlations of individual-level variables

	Mean (SD)	Own alternative	Other's alternative	Aspirations	Perceived power	Individual gains
Own alternative[a]	7250 (2260.30)	1.00				
Other's alternative[a]	7209.09 (2259.92)	−0.04	1.00			
Aspirations	10672.73 (3149.69)	0.46**,[b]	0.02	1.00		
Perceived power	60.73 (15.29)	0.27**	−0.27**	0.13	1.00	
Individual gains	10085 (1746.26)	0.38**	−0.13	0.31**	0.15	1.00

$N = 110$ [10 (5 dyads) impasses are omitted.]

[a] Manipulated variable ($5,000 or $9,500).

[b]The correlation between aspiration and own alternative varied significantly by role. Recruiters, $r = 0.65$, $p < 0.0001$; Candidates, $r = 0.30$, $p < 0.05$.

*$p \leq 0.05$.

**$p \leq 0.01$.

Table 2. Means and pair wise correlations of dyadic-level variables

	Mean (SD)	Joint alternatives	Joint aspirations	Objective relative resources	Perceived relative power	Difference in aspirations	Total power	Joint gains
Joint alternatives	14500 (3181.98)	1.00						
Joint aspirations	21527.59 (4653.87)	0.44**	1.00					
Objective relative resources (equal = 0)	0.51 (0.50)	0.00	−0.11	1.00				
Perceived relative power	16.51 (13.54)	−0.04	−0.11	0.25***	1.00			
Difference in aspirations	2889.66 (2802.67)	−0.02	0.22	−0.01	0.05	1.00		
Total perceived power	121.23 (22.10)	0.01	−0.00	0.00	−0.08	−0.24	1.00	
Joint gains	20283.96 (1595.36)	0.37**	0.34*	0.03	−0.30*	0.05	0.18	1.00

$N = 53$ (5 impasses are omitted).
*$p \leq 0.05$.
**$p \leq 0.01$.
***$p \leq 0.07$.

Manipulation check

To assure that the participants understood their instructions, they were asked to state the monetary value of their own alternative. Results provide evidence that the instructions regarding alternatives were clearly understood. Participants in the high-alternative condition stated a significantly higher alternative than participants in the low-alternative condition [High alternative, $M = 9443.75$, SD = 337.06 ($N = 64$); Low alternative, $M = 5261.81$, SD = 1344.88 ($N = 55$); one-tailed $t(117) = -24.03$, $p < 0.0005$].[2]

Individual-level outcomes

We turn first to our hypotheses regarding the effects of objective and perceived resources on the distribution of surplus. We examined how alternatives, aspirations, and perceptions of power affected individual payoffs. Five dyads did not reach agreement and were removed from these analyses.[3] In an OLS regression testing the combined effects of alternatives, aspirations, and perceptions of power on individual payoffs, controlling for other's alternative, we found that the effects of aspirations and alternatives were moderated by the role of the participant. We therefore present the regressions for candidates and recruiters separately in Table 3. Perceptions of power at the individual level had no effect on individual payoffs in either role. For candidates, own alternative was a significant predictor of individual gains – as one's own alternative increased, individual gains increased. For recruiters, aspirations were a significant predictor of individual gains – as aspirations increased, individual gains increased. These findings provide partial support for Hla and H2a.

Table 3. OLS regression of perceived and objective individual resources on individual outcomes for candidates and recruiters

Candidates only	Standard coefficient (SE)
Own alternative	0.41** (0.11)
Other's alternative	−0.20 (0.11)
Aspirations	0.05 (0.07)
Perceptions of power	−0.14 (20.26)
$N = 53$	
$F\ (4, 48) = 2.64^{*}$	
Adj.$R^2 = 0.11$	
Recruiters only	**Standard coefficient (SE)**
Own alternative	0.01 (0.13)
Other's alternative	−0.09 (0.10)
Aspirations	0.47** (0.09)
Perceptions of power	0.10 (12.58)
$N = 53$	
$F\ (4, 48) = 4.30^{**}$	
Adj. $R^2 = 0.20$	

$^{*}p \leq 0\ .05$.
$^{**}p \leq 0.01$.

In further post hoc analyses, we found that aspirations mediate the effects of alternatives for recruiters.[4] As noted in Table 1, the correlation between aspiration and own alternative varied significantly by role. Though the two are significantly correlated for both roles, the relationship is much stronger for recruiters ($r = .30$ for candidates; $r = .65$ for recruiters). Testing for mediation in the recruiter's role (Baron and Kenny, 1986), when recruiter's payoff is regressed on recruiter's alternative, candidate's alternative, and recruiter's perception of power, the beta for recruiter's alternative is significant ($\beta = 0.32, p < .05$), though the full regression is only marginally significant ($F\ (3, 49) = 2.51, p < 0.10$; Adj. $R^2 = 0.08$). When recruiter's aspiration is added simultaneously with the other independent variables, as shown in Table 3, the recruiter's alternative coefficient is no longer significant, while the coefficient for aspirations is significant and the full regression reaches significance. This provides evidence that aspirations are fully mediating the effects of alternatives on payoffs for those in the recruiter role.

Dyadic level outcomes

We present the OLS regression testing the hypotheses related to integrativeness of the agreements in Table 4. Confirming previous studies and supporting H1b, integrativeness increased as the sum of the alternatives increased, though this effect was marginally significant ($p = 0.06$). We found an important caveat to the conclusion that integrativeness increases

Table 4. OLS regression of perceived and objective individual and relative resources on integrativeness

	Standard coefficicnt (SE)
Joint alternatives	0.27*** (0.07)
Joint aspirations	0.19 (0.04)
Objective relative resources (equal = 0)	0.13 (407.39)
Perceived relative power	−0.29 (15.23)
Differences in aspirations	0.07 (0.07)
Total perceived power	0.17 (9.25)
$N = 53$ $F(6,\ 46) = 3.15^{**}$ Adj. $R^2 = 0.20$	

*$p \leq 0.05$.
**$p \leq 0.01$.
***$p \leq 0.06$.

with the sum of the parties' alternatives. Of the five dyads that did not reach agreement (92.4% agreement rate), four of the dyads were in the HH condition and one was in the HL condition. When impasses were included in the overall regression of integrativeness (using sum of the alternatives as the integrativeness measure for impasses), the sum of the alternatives no longer significantly predicted integrativeness.[5] A logistic regression of agreement (0 = impasse; 1 = agreement) on joint alternatives, joint aspirations, objective relative resources, perceived relative power, total perceived power and difference in aspirations revealed the reason for this – a significant negative effect for joint alternatives ($p < .005$), as well as a significant negative effect for objective relative resources ($p < .005$), though the overall regression was not statistically significant ($\chi^2 = 9.67$, $p = .14$). While higher joint alternatives increase the value of the agreements reached, they also increase the likelihood of impasse. The perceptual variables, joint aspirations, perceived relative power, total perceived power and difference in aspirations did not significantly affect agreement rates, nor were their effects on integrativeness altered when impasses were included in the analyses.

The effect of joint aspirations on integrativeness did not remain significant when controlling for joint alternatives, objective relative resources, perceived relative power, total perceived power and differences in aspirations. Thus, H2b was not supported.

Our hypotheses regarding the negative effect for differences in perceived relative power on integrativeness (H3) was supported. As differences between the parties' perceptions of power increased, integrativeness decreased, even after controlling for the other predictors.

We offer additional analyses exploring the difference between aspirations and perceived relative power. Using an Analysis of Variance, we tested for effects of both own and other's alternatives on aspirations and perceived power. Reported aspirations were significantly affected by one's own alternatives [High alternative, $M = 12050$, SD = 2554.86 ($N = 64$); Low alternative, $M = 9241.07$, SD = 2876.66 ($N = 56$), $F(1, 112) = 33.38$, $p < .005$], but not by the counterpart's alternative [High other's alternative, $M = 10820.64$, SD = 3217.70

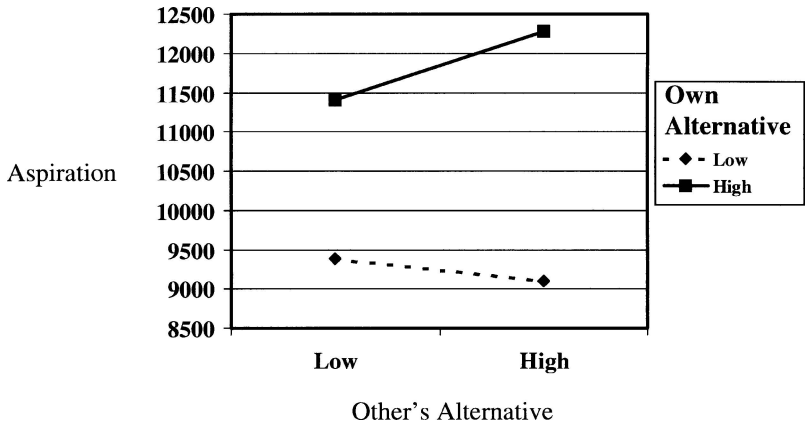

Figure 1. Mean Aspirations by Own and Other's Alternative.

($N = 63$); Low other's alternative, $M = 10649.12$, SD = 2863.57 ($N = 57$), $F(1, 112) = 0.04$, $p =$ ns]. There was no statistically significant interaction between the parties' alternatives on aspirations.[6] These results are presented graphically in Figure 1.

In contrast, both own and other's alternatives influenced perceptions of power (Own alternative: F (1, 112) = 8.73, $p < .005$; Other alternative: F (1, 112) = 7.39, $p < .01$). Parties in a high-alternative condition paired with a participant in a low-alternative condition reported the highest perceived power [$M = 68.21$, SD = 13.42 ($N = 28$)]; parties in dyads with equal-value alternatives reported their power to be roughly equal [$M = 60.75$, SD = 50.07 ($N = 60$)]; and parties in a low-alternative condition paired with a participant in a high-alternative condition reported the lowest levels of power [$M = 52.69$, SD = 14.75 ($N = 28$)]. There was no statistically significant interaction between the parties' alternatives on perceptions of power. These results are presented graphically in Figure 2.

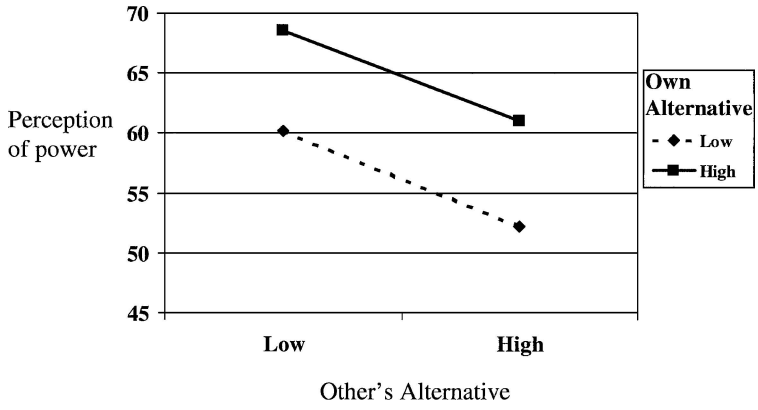

Figure 2. Mean Perceptions of Power by Own and Other's Alternative.

Discussion

We have provided a more complete conceptualization of the effects of power on negotiation outcomes by disentangling perceptions of relative dependency – power – from objective resources – alternatives. Negotiators rated themselves as more or less powerful based not only on their own alternative, but also the alternatives of their counterparts. Furthermore, alternatives and perceived relative power have different effects on negotiation outcomes. Individual-level resources, and the aspirations which reflect the perceptions of those resources, drive individual-level payoffs. Perceptions of relative power, however, have no significant effects on the distribution of payoffs. In contrast, the effects of perceived power are found in the integrativeness of the outcome. Even after controlling for the sum and difference in objective resources across the parties, the sum and difference in aspirations, and total perceptions of power, perceptions of relative power had predictable effects on joint outcomes: those pairs in which both parties' perceptions of power were roughly equal were able to achieve significantly greater integrativeness than those pairs in which there were greater differences in perceived power.

How people view their relationship, whether as one between relatively equal- or unequal-power parties, affects their motivation for negotiating with one another and subsequently, their behavior. When people recognize their mutual dependence on one another, they are more likely to recognize that helping their counterparts achieve their goals, in turn, will advance their own interests (Rubin, Pruitt and Kim 1994). This instrumental concern for others as well as oneself has been associated with greater integrativeness (Ben-Yoav and Pruitt 1983; Rubin, Pruitt and Kim 1994). When people perceive themselves in an equal-power relationship, they are motivated to find trades that increase the value of the deal, which allows both parties' interests to be satisfied.

Past research has proposed that power works through aspirations (Mannix and Neale 1993; Pinkley, Neale, and Bennett 1994; Sondak and Bazerman 1991). Our findings suggest that, while the effects of alternatives may sometimes work through aspirations, aspirations and perceptions of power are conceptually and empirically distinct constructs. Participants' perceptions of their power in a negotiation were unrelated to their aspirations in that same negotiation, and the two variables derived from different sources and had separate effects on negotiated outcomes. Specifically, perceptions of power incorporated both own and other's alternatives and had a strong effect on the integrativeness of the outcomes. In contrast, reported aspirations reflected only one's own alternative – participants ignored their counterparts' resources when setting their goals for the negotiation. Consequently, aspirations affected integrativeness in the same manner as alternatives – as joint aspirations increased, integrativeness increased, but this effect was not significant after controlling for the parties' alternatives. Moreover, we find that aspirations, but not perceptions of relative power, are related to payoffs at the individual level.

At first glance, considering the other's alternatives when determining one's power but not doing so when determining one's aspirations may appear to be a cognitive error – the less power you perceive yourself to have in a negotiation, the less you should hope to achieve. Such an error is consistent with a growing body of research illustrating ways in which individuals ignore information about others in decisions and negotiations

(Camerer and LaVallo 1999; Moore in press; Ball, Bazerman, and Carroll 1991). On a strategic level, however, there may be a defensible rationale for paying attention to relative resources when calculating power in a negotiation, but ignoring relative resources when calculating aspirations. In order to predict and be ready to respond to how one's counterpart is going to behave, it is important to accurately understand the power balance in a negotiation. But, since higher aspirations lead to higher payoffs (Zetik and Stuhlmacher 2002), it may be advantageous to have high aspirations even when in a low power position. Recent research by Pittutla and Murnighan (2003) provides additional support for the disconnect between perceptions of power and aspirations. In a series of experiments using ultimatum and dictator games, the authors found that when people lost power, people's perceptions of power reflected this shift, but their demands did not; their allocations remained the same. Future research is needed to provide a deeper understanding of how negotiators develop beliefs about power and aspirations, and how these interact with one another to affect negotiation processes and outcomes.

Our results revealed unexpected role (candidate vs recruiter) differences in the effects of alternatives and aspirations on individual payoffs. For recruiters, aspirations were highly correlated with alternatives ($r = 0.65$) and fully mediated the effects of alternatives on individual payoffs; for candidates, there was less of a connection between alternatives and aspirations ($r = 0.30$), and aspirations had no effect on payoffs. Past research has shown that the context of the negotiation and the roles people play affects the way participants interpret the information they are given (Neale, Huber and Northcraft 1987), although later research suggested these differences are often due to an asymmetric presentation of alternatives in most experimental materials (Ritov 1996). We suggest a more social explanation-participants may be bringing in their "real world" assumptions about the roles. Here, a candidate was looking for a job and a recruiter was trying to fill a position, giving each a different perspective on risk in the negotiation. Recruiters may have felt it was reasonable to be "pushy" given a high aspiration, while candidates may feel somewhat at the mercy of a recruiter, regardless of one's aspiration level. These social perceptions of the role may have had an implicit effect on their behavior (Bargh et al. 1995; Galinsky, Gruenfeld, and Magee 2003).

Our results provide further evidence that people consider more than the economic structure of a negotiation when determining their power. Previous research has shown that people also consider their roles (Olekalns 1991), their individual values (Coleman 1998), their own and others' personalities (Anderson and Berdahl 2002; Georgesen and Harris 2000), and the time horizon for the relationship with the respective other (Larson 1992) when determining their power. Our research also raises, but does not address, questions about the effect of different sources of power on people's evaluation of the power relationship. In this study, we only examine one source of power-alternatives – but as French and Raven (1959) show, there are multiple sources of power. Some sources of power may weigh more heavily than others in determining a particular power relationship. For example, asymmetric coercive power may be more detrimental to integrativeness in a negotiation than power asymmetries based on held resources or information. Further research is needed to uncover the similarities and differences stemming from different sources of power.

The main purpose of this study was to explore how the perceived balance of power in negotiations affects outcomes. Our results support our hypothesis that as perceived equality

increases, integrativeness increases. But we did not investigate the process through which parties who perceive their relationships as more equal reach agreements of greater integrativeness. The effects of relative power on negotiations appear to work through dyadic-level mechanisms, such as the information sharing between the parties, rather than individual-level mechanisms, such as goal setting or anchoring. This is consistent with a growing body of research examining the effects of power differences on behavior (See Keltner, Gruenfeld, and Anderson 2003, for a review). For example, parties in equal-power relationships are more likely to reciprocate each other's actions (Buunk et al. 1993; Lawler and Yoon 1993) and are more likely to ask information-seeking questions of one another than unequal-power parties (Giebels, De Dreu, and van de Vliert 1998), behaviors that are beneficial in negotiations. Future research could add important insights into our understanding of power in negotiations by investigating how the process of negotiation varies across parties in equal- and unequal-power relationships.

In conclusion, objective, structural variables, such as the resources the parties bring to the negotiation, play an important role in determining the agreements the parties reach. But these factors tell only part of the story. Resources reflect what each party hopes to achieve in the negotiation, as previous research has shown, but resources also influence the perceived power symmetry across the parties. When perceiving the relationship as more equal, parties are likely to reach agreements of greater integrativeness–advantages lost when viewing the relationship as asymmetric. By examining power as a perceived, relational variable, we can gain a fuller understanding of the role of power in negotiations.

Appendix

Table A1. Payoff schedule

Issue	Options	Candidate Payoffs ($)	Recruiter Payoffs ($)
Bonus	10%	4000	0
	8%	3000	400
	6%	2000	800
	4%	1000	1200
	2%	0	1600
Vacation time	25 Days	1600	0
	20 Days	1200	1000
	15 Days	800	2000
	10 Days	400	3000
	5 Days	0	4000
Moving expenses coverage	100%	3200	0
	90%	2400	200
	80%	1600	400

(Continued on next page)

Table A1. (*Continued*)

Issue	Options	Candidate Payoffs ($)	Recruiter Payoffs ($)
	70%	800	600
	60%	0	800
Insurance coverage	Plan A	800	0
	Plan B	600	800
	Plan C	400	1600
	Plan D	200	2400
	Plan E	0	3200
Salary($)*	50,000	8000	0
	48,000	6000	2000
	46,000	4000	4000
	44,000	2000	6000
	42,000	0	8000

*These are just examples of possible salaries. You may agree to any salary between $42,000 and $50,00.

Notes

1. We use joint profit as a proxy for integrativeness for the following reasons: 1) It is the most straight forward and intuitive measure of integrativeness, 2) according to Tripp and Sondak (1992), if a relevant portion of the pareto frontier has a slope of -1, there is little risk that using joint profit would lead to a different conclusion than using an integrativeness measure of efficiency and 3) De Dreu and Carnevale (2002), state that although there are differences between the measures in theory, empirically the measures have been strongly correlated.
2. One participant did not complete the manipulation check question.
3. The reported findings remained significant when impasses were included in the analyses.
4. It is clear that aspirations are not mediating the effects of alternatives for candidates, since the coefficient for aspirations is not significant in the full regression on candidate payoffs.
5. Otherwise, there were no significant differences in the analyses when impasses were included.
6. In addition to the main effect of alternative, there was a main effect of role, such that candidates had higher aspirations than recruiters [Candidates, $M = 11208.33$, SD $= 3121.40$ ($N = 60$), Recruiters: $M = 10270$, SD $= 2913.28$ ($N = 60$), $F(1, 112) = 5.02$, $p = .02$]. The main effects of alternative and role were qualified by a role X alternative interaction, such that among participants in the low-alternative condition, recruiters had lower aspirations than candidates [RL: $M = 8174.07$, SD $= 2678.20$ ($N = 27$); CL: $M = 10234.48$, SD $= 2733.95$ ($N = 29$); two-sided t-test $(54) = 2.85$, $p = .006$).

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