Team Negotiation:
An Examination of Integrative and Distributive Bargaining

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Two experiments compared the effectiveness of team and solo negotiators in integrative and distributive bargaining. When at least 1 party to a negotiation was a team, joint profit increased. Teams, more than solos, developed mutually beneficial trade-offs among issues and discovered compatible interests. The presence of at least 1 team increased information exchange and accuracy in judgments about the other party's interests in comparison with solo negotiations. The belief by both teams and solos that teams have a relative advantage over solo opponents was not supported by actual outcomes. Unexpectedly, neither private meetings nor friendships among team members improved the team's advantage. Teams of friends made less accurate judgments and reached fewer integrative agreements compared to teams of nonfriends.

Groups perform many tasks, and one of the most crucial is negotiation (Bazerman, Mannix, & Thompson, 1988). Negotiation is a mutual decision-making situation in which two or more persons make joint decisions regarding the allocation of scarce resources (Bazerman & Neale, 1983; Neale & Bazerman, 1991) and is an important and extremely common form of social interaction. For example, colleagues negotiate project responsibilities; friends negotiate dinner plans; and spouses negotiate childcare and housework. People involved in negotiations often face decisions about whether to negotiate by themselves or as a team (Raiffa, 1982). For example, two associates in a joint business venture may weigh the pros and cons of negotiating as a team. Similarly, a couple buying a house or car may think it best to have only one of them negotiate rather than act as a team. Members of task forces and committees who negotiate with department heads or deans also face similar decisions. The question that was the focus of our research is whether team negotiation, wherein two or more people unite as a single party, is more effective than one-on-one negotiation. Our investigation focused on comparing three types of configurations: team versus team negotiations, solo versus solo negotiations, and team versus solo negotiations. Experiment 1 provided an empirical test of these different configurations on negotiation performance. In Experiment 2, we examined the underlying processes

as well as social-contextual factors associated with team negotiation.

Experiment 1

Negotiation is a *mixed-motive* task in which people's interests are both cooperative and competitive (Bazerman et al., 1988). The mixed-motive nature of negotiation distinguishes it from other group tasks, such as decision making and problem solving. Individuals in mixed-motive tasks such as negotiation are motivated to cooperate with others to ensure that a mutually agreeable solution is found, but they are motivated to compete with others so as to gain the largest share of the scarce resources to be divided (Mannix, Thompson, & Bazerman, 1989).

The effectiveness of negotiation may be assessed in terms of two important skills: one corresponding to the cooperative, or integrative, component of the task and the other corresponding to the competitive, or distributive, component (Bazerman et al., 1988). The integrative component is a measure of the extent to which people create added value and maximize joint gains. In contrast, the distributive component is a measure of the extent to which people maximize their share of the available resources. Most negotiations are not simply fixed-sum situations; instead, there exist opportunities to maximize joint profit (Bazerman & Neale, 1992). Our hypothesis was that negotiations involving teams (team/team and solo/team negotiations) should reach more integrative agreements than solo/solo negotiations. We also predicted that teams would show a distributive advantage, reaping more profits relative to the solos within team/solo negotiations.

At first glance our hypothesis may appear inconsistent with the general finding that group judgment and performance is often inferior to individual judgment (for reviews, see Hastie, 1986; Hill, 1982; Mullen, Johnson, & Salas, 1991; Sheppard, 1993). However, the effectiveness of group performance depends on the nature of the task (Hastie, 1986; Hill, 1982; McGrath, 1984; Steiner, 1972). We suggest that the oft-cited problems of motivation loss and production blocking that hinder group judgment and problem

solving occur in intragroup settings, rather than across the bargaining table. Furthermore, group performance is often much better than individual performance when the task is realistic (Michaelson, Watson, & Black, 1989). Below, we review the research that bears on our hypotheses.

Integrative Component of Negotiation

The integrative component of negotiations involves the creation and discovery of joint gain (Bazerman & Neale, 1983; Neale & Bazerman, 1991). Probably the most cited illustration of integrative agreements is the story of the two sisters arguing over an orange (Follett, 1942). The sisters compromise by cutting the orange in half—one drinks the juice and throws the peel away; the other uses the peel for a cake and throws the juice away. The sisters overlooked the integrative solution of giving one all of the juice and the other all of the peel. Other examples also abound (cf. Neale & Bazerman, 1991; Pruitt & Rubin, 1986; Raiffa, 1982). The common element in such integrative agreements is that parties identify common interests and make trade-offs on differentially valued issues (Bazerman & Neale, 1983).

By exchanging information, negotiators may develop accurate judgments about the other party's interests and create mutually beneficial integrative agreements (Pruitt & Lewis, 1975; Thompson, 1991). Even in negotiations in which only one person reveals information, both parties benefit as a result (Thompson, 1991). Furthermore, there is a strong reciprocation effect: if one person provides information, the probability that the other will provide information in kind significantly increases, enhancing the likelihood of integrative agreement (Thompson, 1991). These findings suggest that the discovery of integrative agreements is a disjunctive task (Steiner, 1972). It only takes one person in a negotiation to begin a mutually rewarding exchange of information for all to benefit. For example, Thompson (1991) found that only 20% of negotiators in solo/solo negotiations shared information. However, the likelihood that a negotiator would disclose information was much greater in dyads in which the other party disclosed information (55%).

We hypothesized that teams of negotiators would initiate and engage in more across-the-table information exchange and issue exploration than would solo negotiators. Teams, more than solos, need to reduce ambiguity and coordinate their actions. Acquiring information about the other party allows teams to develop a shared understanding of the task (Thompson, Peterson, & Kray, 1995). A shared sense of understanding is important because individual team members cannot unilaterally impose solutions—all team members must be in agreement for a proposal to be binding. The interdependency among team members leads to the need to coordinate actions and seek support for beliefs and actions.

In contrast, a solo negotiator does not need to coordinate his or her actions with a fellow team member; nor is his or her understanding of the situation challenged by a team member and hence, in need of corroboration or support. The solo negotiator's task is to simply reach agreement with the other party. Of course, we are not suggesting that solos never seek or exchange information with the other party. Rather, solos will seek relatively less information than will teams, who need information to facilitate intrateam relationships. We expected the least in-

formation exchange to occur in solo/solo negotiations, moderate levels of exchange in solo/team negotiations, and the most sharing in team/team negotiations.

Because information exchange is intimately related to accurate judgment (Thompson, 1991), we predicted that the presence of a negotiation team would enhance judgment accuracy and, ultimately, the profitability of negotiated agreements. Our prediction was based on the fact that even asymmetric information exchange greatly enhances both parties' judgment accuracy and joint benefit (Thompson, 1991).

Distributive Component of Negotiation

Even after the pie of resources to be divided is expanded, the pie must be divided (Neale & Bazerman, 1991; Bazerman et al., 1988). This is the competitive aspect of negotiation, wherein each party tries to claim the largest share of the resources. Unlike the integrative component, the distributive component of negotiation is measured in terms of individual gain. We expected that teams of negotiators would enjoy a distributive advantage over their solo counterparts, claiming more of the jointly available resources than the solos in the team/solo negotiations. We believe that the team advantage on the distributive dimension is due to two mechanisms: an intrateam dynamic, which produces higher performance expectations among team members, and an interteam dynamic, whereby teams exert influence over the solo. We elaborate on each of these processes below.

Performance Expectations

Setting specific, challenging performance expectations enhances individual gain in negotiation (Huber & Neale, 1986; Neale, Northcraft, & Earley, 1990). Normative and informational models of social influence (Campbell & Fairey, 1989; Deutsch & Gerard, 1955) suggest that individuals in a team or group modify their expectations in the direction of the team (or group) norm. We expected that in team negotiations, members would mutually reinforce and bolster each other's goals. Each member of a team may hold slightly different goals due to the fact that each possesses different reasons for his or her position. As team members learn of each other's reasons for a position, the group's goals and aspirations should intensify (Burnstein & Vinokur, 1975; Stasser & Titus, 1985; Steiner, 1972). We expected teams to have higher performance expectations than solos and that such expectations would enhance performance. High performance expectations may also reflect greater competitiveness. Indeed, between-dyad behavior is more competitive than within-dyad behavior (Insko & Schopler, 1987). According to the discontinuity hypothesis (Insko & Schopler, 1987), group situations engender different beliefs about appropriate levels of competition, with groups being more competitive than individuals.

Social Influence

The analysis of social influence above refers to influence that operates within the negotiation team. Another powerful source of social influence occurs across the bargaining table as one person attempts to alter the other person's perception of what con-

stitutes a fair and reasonable agreement. Much of negotiation involves persuading the other party that one's own view is justified (Walton & McKersie, 1965). Both theory (Latane, 1981) and research (Asch, 1955) suggest that up to a point, influence is greater as the number of members in the group increase. It is often said that one person in a group who argues for a particular point of view holds an opinion, whereas two or more people expressing the same view constitute a fact. Because of the power of interteam social influence, we predicted that teams who faced a solo at the bargaining table would exert more social influence than the solo. Teams who negotiated against solos should be more likely to persuade the solo negotiator and consequently, fashion more favorable agreements for themselves. Solos should feel greater pressure, therefore, to accept a demand put forth by a team than by a solo negotiator, producing discrepancies in resource allocation.

Overview of Experiment

To examine our hypotheses about team and solo negotiations, we compared three types of negotiation configurations: teams versus teams, teams versus solos, and solos versus solos. People were randomly assigned to either a team or to a solo position and then randomly paired with either a team or solo opponent. The task contained an integrative component—negotiators could enhance the joint gain available—as well as a distributive component—each party could attempt to maximize his or her share of the earnings. The first experiment tested the hypotheses that teams would excel in both integrative and distributive skills. To anticipate Experiment 2, we included measures of the processes (information exchange and judgment accuracy) that we believed to underlie this effect. In Experiment 2, we also examined the impact of two additional team dynamics on negotiation performance: relationships among team members and caucusing among team members.

Method

Participants

A total of 179 undergraduate students participated in the study in exchange for extra credit in an introductory psychology course. The students had never before engaged in laboratory negotiation tasks and did not know one another prior to the task.

Materials and Procedures

Participants engaged in a two-party, multi-issue negotiation about a real estate development project[1] in which they negotiated as a solo or as part of a two-person team. The negotiation task contained integrative and distributive components, allowing us to examine the impact of teams versus solos on each measure of performance. In the task, the vice president of a real estate development company and the chief city planner negotiate eight issues concerning a residential community development project. The negotiation included such issues as the selection of a building inspector and the ratio of condominiums to apartments in the development. Each party's payoffs were defined by profit schedules provided by the experimenter (see Appendix). Each negotiator received only his or her profit schedule and was instructed to consider only those options listed on the chart.

The maximum number of points negotiators could earn was 13,200; the maximum they could lose was 8,400. Negotiators could reach integ-

rative agreements by identifying compatible issues and logrolling pairs of issues. Compatible issues are those for which negotiators have identical preferences (Thompson & Hastie, 1990). Negotiators had identical preferences for two issues: "retail space" and "building inspector" (see Appendix). However, because negotiators only saw their own profit schedules, compatible interests were not immediately apparent but could be discovered through information exchange. Logrolling involves trade-offs between issues for which negotiators have different priorities (Froman & Cohen, 1970). Four of the issues were constructed to allow negotiators to make trade-offs that maximized joint gain. For example, by agreeing to $1,000,000 financing and four local subcontractors, both parties earned the maximum joint profit on these issues. Similarly, the condo:apartment ratio issue and the low- and moderate-income unit issue could be traded-off to increase joint gain.

Participants in all conditions were told to earn as many points as possible for themselves, as determined by their payoff schedule, and that failure to reach agreement would result in 0 points for both parties. Those in the team conditions were instructed that their individual payoffs would be the total amount earned by the team.[2] All negotiators reached agreement.

Upon arrival to the experiment, participants were assigned to one of two roles (developer or city planner), received name tags to identify their role and were told they would negotiate alone or as part of a two-person team. Assignment to experimental conditions was random. Next, participants read instructions that identified their partner (if they had one) and the other party (solo or team) and were provided with background material about the negotiation. After reading the material, each party (either solo or team) retired to separate rooms for 10 min. Participants were not given specific instructions on what to do during this time, other than the general instruction to prepare for the upcoming negotiation. Following the preparation session, participants completed a brief questionnaire concerning their performance expectations and their beliefs about the relative advantage of the two parties in the upcoming negotiation.

Negotiation parties were then brought together in a single room and were allowed 30 min to negotiate. All negotiators were present and interacted face to face in an unconstrained fashion. After the negotiation, parties were given a form on which to indicate their agreement (if applicable); negotiators indicated their acceptance of the agreement by signing the form. Negotiators completed a final questionnaire assessing their perceptions of the relative advantage held by themselves and the other party in the preceding negotiation.

Experimental Design and Analysis

The key independent variable, party composition, concerned whether participants negotiated alone or as part of a two-person team. Another variable, role, specified the role (developer or city planner). Although the negotiation roles (developer, city planner) were symmetric in terms of earning potential and, therefore, we did not predict differences, we performed analyses to examine whether there were significant differences on the dependent measures as a function of role; none were found (all Fs < 1). As a result, measures were collapsed across roles, yielding three negotiation compositions: solo/solo, solo/team, and team/team.

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[1] The negotiators used companion cases, written by Susan E. Brodt, available through the Darden Educational Materials Service, Box 6550, University of Virginia, Charlottesville, Virginia 22906-6550. Request cases numbered UVA-OB-0386 (Bender Corporation role) and UVA-OB-0387 (City of Springfield role).

[2] This instruction ruled out the possibility that teams or solos would argue that rewards should be distributed in a proportional fashion.
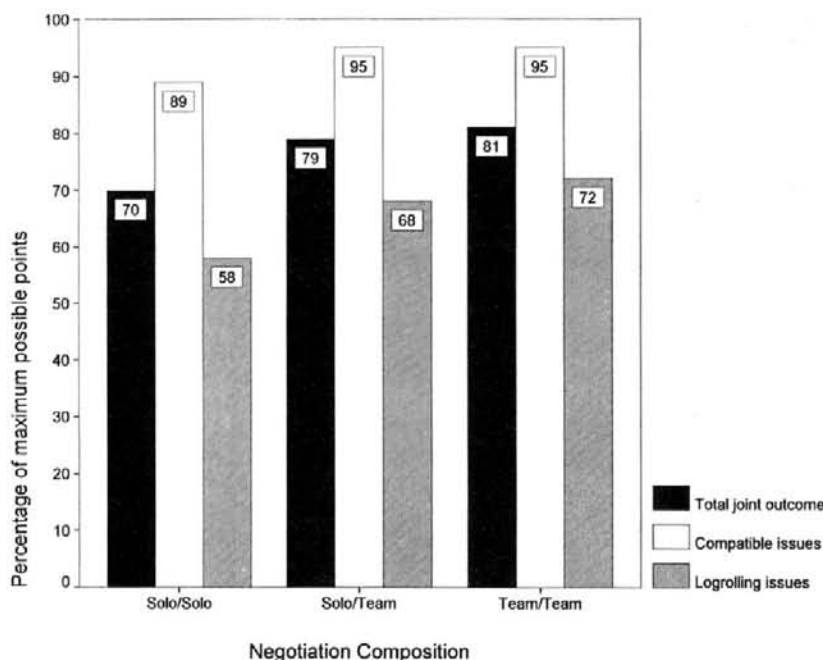
Figure 1. Negotiator composition and joint performance (Experiment 1).

Dependent Variables

Performance. The key dependent measures were joint outcomes (sum of both parties' points, reflecting the integrative component) and relative outcomes (difference between parties' points, reflecting the distributive component). Joint outcomes were further analyzed to assess logrolling performance and identification of compatible issues.

Perceptions of advantage. Negotiators were instructed to place a mark on a scale with end points labeled *the other party has the advantage* and *I have (my team has) the advantage.* Participants completed this measure twice: once before negotiation and then immediately following negotiation. Responses were coded on a scale ranging from −50 to +50, such that a score of 0 indicated that negotiators believed both parties had equal advantage; positive scores (greater than 0) indicated a belief in the superiority of one's own party; and negative scores (less than 0) indicated a perception that the other party had the advantage.

Performance expectations. Negotiators were asked to indicate how many points they thought they could realistically achieve in the negotiation.

Results

Integrative Component

We predicted that team/team and solo/team negotiations would result in more integrative agreements than solo/solo negotiations. To examine the impact of negotiation composition on joint performance, an analysis of variance (ANOVA) was computed and the results supported our hypothesis. As shown in Figure 1, joint profit differed significantly among the three compositions, $F(2, 57) = 8.07$, $p < .002$, and as predicted, negotiations in which at least one of the parties was represented by a team resulted in greater joint profits than negotiations between solos, $F(1, 57) = 16.13$, $p < .001$.[3] Solo/solo negotiators earned on average 7,875$_a$ points ($SD = 1,608$), whereas solo/

team negotiators earned 9,579$_b$ points ($SD = 1,615$), with team/team negotiators earning the most points, 10,000$_b$ ($SD = 1,598$). (Note: means that do not share a common subscript here and elsewhere in the text differ at $p < .05$ or less).[4] Two measures of joint performance illuminate teams' advantage: compatible issues and logrolling.

Compatible issues. As shown in Figure 1, ability to identify compatible issues differed among the three groups, $F(2, 57) = 6.96$, $p < .003$. As predicted, the average joint profit on compatible issues was significantly greater when there was a team at the negotiating table than when only two solos negotiated, $F(1, 57) = 11.92$, $p < .005$. In fact, 31% of solo/solo negotiators completely missed both compatible issues, whereas only 6% of solo/team and none of the team/team negotiators failed to capitalize on compatible issues.

Logrolling. As expected, successful logrolling differed among the groups, $F(2, 57) = 3.26$, $p < .05$. Groups with at least one team earned significantly more points on the logrolling issues than did solo/solo negotiations, $F(1, 57) = 5.21$, $p < .05$ (see Figure 1). Because logrolling scores are a sum of both parties' payoffs, it is possible that moderately high logrolling profit could be obtained in the absence of mutually beneficial tradeoffs between parties—for example, if one party got his or her way on all the issues. For this reason we developed a trade-off score, reflecting the degree to which parties actually traded

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[3] To facilitate comparison across the different measures of performance (logrolling and compatible issues), Figure 1 indicates the percentage of possible points that could be achieved on each measure of performance. The statistical analyses, however, are based on actual points earned.

[4] Joint profit could range from −3,600 to 13,200 points

issues in a mutually beneficial fashion. For each pair of logrolling issues, negotiators were assigned a score of 50 if they agreed to the most mutually beneficial trade-off, 25 if they partially logrolled (that is, agreed to a beneficial trade-off rather than a straight compromise, but not the most profitable trade-off), and 0 if they did not trade any issues.[5] Scores for the two pairs of issues were summed, yielding an overall index of trade-off performance ranging from 0–100. Solo/solo negotiators were much less likely to make mutually beneficial trade-offs ($M = 1.56_a$, $SD = 6.25$) than were solo/team ($M = 17.24_b$, $SD = 30.69$) and team/team ($M = 21.76_b$, $SD = 24.76$) negotiators, $F(1, 57) = 5.85, p < .02$.

Distributive Component

We also predicted that teams would outperform solos by earning a greater share of the resources to be divided. We tested this hypothesis in two ways. First, we compared the profits earned by teams versus those earned by solos in the solo/team condition. No significant differences in profits were found; solos did not reap significantly less profit ($M = 4,651$ $SD = 1,986$) than did teams ($M = 4,927$ $SD = 1,741$; $F < 1$). Second, we compared the profits earned by solos negotiating against teams versus the profits of solos negotiating with solos ($M = 3,937$, $SD = 804$) and again, found no significant differences in earnings, $F(1, 43) = 1.88$, ns. Similarly, we examined whether teams were better off when facing solos than when facing teams. We compared the profits earned by teams negotiating against solos with the profits of teams negotiating against teams ($M = 5,000$, $SD = 799$) and found no significant differences in profits ($F < 1$). Teams increased the total value of negotiated agreements, but they did not have a competitive advantage over solos.

Performance Expectations

As predicted, teams believed they would earn significantly more points ($M = 6,149$, $SD = 2,855$) compared to solos ($M = 4,654$, $SD = 3,211$), $F(1, 77) = 10.12, p < .001$.

Perceptions of Advantage

Negotiators perceived an advantage for their own party (grand $M = 7.82$, $SD = 21.66$), $F(1, 173) = 23.30, p < .001$, except for the solos who expected to face a team, who felt significantly more disadvantaged ($M = -14.48_b$, $SD = 22.69$) than did teams expecting to negotiate with a solo ($M = 19.21_c$, $SD = 19.97$), $F(3, 173) = 20.71, p < .001$. Furthermore, these groups' perceptions differed significantly from solos expecting to face another solo ($M = 7.65_a$, $SD = 15.55$) and from teams expecting to face another team ($M = 7.88_a$, $SD = 16.87$).

After the negotiation, participants' assessments of advantage also differed among the groups, $F(3, 175) = 7.11, p < .001$. Teams who negotiated with solos regarded themselves as having had a significant advantage over their opponents compared with all other negotiator positions, $F(1, 175) = 17.16, p < .001$. Furthermore, there was a significant interaction between the negotiator's position and perceptions of advantage over time, $F(3, 173) = 2.86, p < .04$. Solos who faced teams felt less disadvantaged after negotiation than before negotiation (mean differ-

ence between post- and prenegotiation perceptions of advantage = 7.07, where positive numbers indicate that perceptions of advantage increased during negotiation), but all other groups felt more disadvantaged after negotiation (solos facing solos, $M = -4.69$; teams facing solos, $M = -6.67$; teams facing teams, $M = -9.91$), $F(1, 173) = 7.08, p < .009$.

Were the differences in feelings of advantage between teams and solos related to actual differences in profit? The more teams earned relative to their solo opponents, the more advantaged they felt $\beta = .5, F(1, 27) = 9.06, p < .01$; and the more disadvantaged solos felt $\beta = -.4, F(1, 27) = 5.16, p < .05$. The intercepts of these regression equations are noteworthy because they indicate how teams and solos felt when the profit distribution was equal (when teams and solos earned the same amount). In these cases, the team's intercept was positive ($M = 12.00, t(27) = 3.38, p < .005$), indicating that even when teams earned the same amount as their solo opponent, they still felt advantaged. Conversely, the solo's intercept was negative ($M = -6.86, t(27) = 2.35, p < .05$), indicating that even when solos earned the same amount as their team opponents, they felt disadvantaged.

Discussion

When at least one party to a negotiation was a team, outcomes were more integrative than when both parties were solos. Teams excelled in creating mutually beneficial trade-offs between issues and identifying optimal outcomes on issues for which negotiators had identical preferences. The fact that the presence of a team at the bargaining table increased joint benefit for all parties in both team/team as well as solo/team negotiations suggests that integrative bargaining is largely a disjunctive task—as long as one party engages in integrative bargaining, all parties benefit.

However, contrary to our hypothesis, teams did not outperform solo negotiators. The tasks of integration and distribution in negotiation are not mutually exclusive. Individuals may be skilled in both tasks, neither, or only one of these dual skills (Bazerman et al., 1988). Why weren't teams able to excel on the distributive component of negotiation and claim a greater share of the joint resources? One reason may be the difficulties associated with team coordination. Successful distributive negotiation requires coordination of actions among team members. In contrast to the integrative component (which is largely disjunctive), the distributive component of negotiation is a conjunctive task; both members must coordinate their behavior to be effective. In short, distributive performance is only as good as the weakest member of the team. In Experiment 2, we examined two social-contextual factors that may improve teams' ability to coordinate their efforts at the bargaining table: one is a structural mechanism (private caucusing) and the other is an interpersonal mechanism (friendship among team members).

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[5] For example, compare a compromise agreement and a perfectly logrolled deal. If negotiators agree to a compromise involving city financing and local subcontractors (i.e., $750,000 and two subcontractors), the value to each party is 2,800 points and total value is 5,600 points. If they agree to a trade such that the developer gets $1,000,000 in financing and the planner gets four local subcontractors, each party receives 4,000 points, resulting in a total value of 8,000 points. Partially logrolled agreements fall between these two extremes.

Even though teams did not have a competitive advantage over solos, both teams and solo negotiators nevertheless strongly believed teams were in a position of greater advantage and solos were disadvantaged when facing teams. These perceptions were present at the outset of negotiation and persisted following negotiations despite the absence of objective evidence. The fact that teams believed that they had an advantage is consistent with a large body of research suggesting that whereas groups are not more effective than individuals, they believe that they are (Paulus, Dzindolet, Poletes, & Camacho, 1993; Stasson, Bradshaw, Alexander-Forti, & Lakey, 1993).

We suggested teams would engage in information exchange about interests, resulting in accurate perception of the other party—a task critical for effective integrative negotiation (Thompson, 1991; Thompson & Hastie, 1990). However, we did not measure information exchange or judgment accuracy. In Experiment 2, we included measures of information exchange as well as judgment accuracy to examine the underpinnings of the team effect.

Experiment 2

Having established that team negotiation enhances integrative agreements, Experiment 2 examined information exchange and judgment accuracy as underlying psychological mechanisms. We examined two social-contextual factors which we believe facilitate team coordination, thus leading to a distributive advantage: the opportunity to caucus privately and friendship among team members.

Because distributive bargaining is a competitive activity, the presence of an opponent may inhibit effective team coordination. Caucusing refers to the private discussion of ideas and plans among members of a group. To the extent team members have an opportunity to meet privately, they may devise effective strategies for claiming a large amount of the resources to be divided.

Another means by which teams may coordinate their strategy is through mutual trust and understanding. Team members who are long-time friends or colleagues may share a strong sense of cohesiveness and trust. Cohesiveness is often defined as the sum of forces maintaining members' commitment to the group (e.g., Festinger, 1950). In practice, cohesion is operationalized in several different ways, including interpersonal attraction among members, shared commitment to the group's task, and feelings of group pride (Hogg, 1992; Mullen & Copper, 1994). These aspects of cohesiveness tend to co-occur (Hogg, 1992). Groups whose members like each other tend to feel pride in their group and share commitment to their task. The task-based aspect is particularly important in predicting performance (Mullen & Copper, 1994). Teams may reap greater profits when cohesiveness and trust among members allows coordination of action. Team members who know one another may be able to interpret subtle signals and use this to their advantage. There are numerous (and sometimes humorous) illustrations of the knowing glances and signals people in relationships send to one another during a negotiation situation—often without the other party's awareness (Fleming & Darley, 1991). We hypothesized that team members who are friends will work more cohesively, share more trust and understanding of each others' skills, and there-

fore capitalize on the competitive or distributive component of negotiation compared to teams of nonfriends.

Overview of Experiment

The design of Experiment 2 replicates and extends that used in Experiment 1. Again, we compared team/team, solo/team, and solo/solo negotiations. The task was identical to that used in Experiment 1. We extended the design by allowing some parties to caucus privately during the course of negotiations and by pairing some individuals assigned to teams with a long-term friend; conversely, others were teamed with a stranger. We measured trust, understanding, and cohesion among team members.

Method

Participants

A total of 462 people participated in the study; half were undergraduate students who participated for extra credit in an introductory psychology course; the other half were their friends, who accompanied them to the experiment. This method of recruiting was adopted from previous investigations (cf. Thompson and DeHarpport, 1993). In the procedure, each student who signed up for the experiment was required to bring a friend whom he or she had known for at least 3 months and saw at least once a week outside of class. The friends were well-acquainted: 47% of the pairs of friends had known each other for 3–6 months, 5% had known each other for 6–12 months, and 48% had known each other longer than a year. A total of 65% saw each other 5–7 days a week outside of class, 15% saw each other 3–4 days a week, and 20% saw each other 1–2 days a week.

Experimental Design

The experimental design included three independent variables: party composition, negotiator role, and caucusing opportunity. Participants engaged in a two-party negotiation in which each party was represented by one of three compositions: team of nonfriends, team of friends, or solo individual. As in Experiment 1, there were two roles: real estate developer and city planner. As in Experiment 1, there were no role effects, so we collapsed the fully crossed design into six negotiation compositions: solo versus solo (solo/solo), solo versus team of nonfriends (solo/nonfriends), solo versus team of friends (solo/friends), team of nonfriends versus team of nonfriends (nonfriends/nonfriends), team of nonfriends versus team of friends (nonfriends/friends), and team of friends versus team of friends (friends/friends). The three basic negotiation compositions used in Experiment 1 are easily identified in Experiment 2: solo negotiator versus solo negotiator (solo/solo), solo negotiator versus team (solo/team), and team versus team (team/team). Finally, for half of the six compositions, negotiations included a caucusing break in the middle of the negotiation; the other half did not, yielding a total of 12 conditions in the experiment. Each negotiation session was attended by 4–8 people. Participants were randomly assigned to 1 of the 12 conditions, with the restriction that participants never negotiated against a friend.[6]

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[6] Participants were randomly assigned to conditions from among those appropriate to the number of people in the session. For example, two pairs of friends were randomly assigned to either a friend/friend negotiation, or to 2 solo/solo negotiations (it would be impossible to assign this group to a nonfriends/nonfriends negotiation because it requires four unacquainted persons).

Negotiation Task and Procedures

The negotiation task and general procedure were identical to those used in Experiment 1, with two exceptions. First, in half of the experimental conditions negotiators were allowed to caucus privately during the negotiation. A break was given 8–10 min into the negotiation, at which time each party (whether team or solo) was led to a private room for 5 min. Participants were notified prior to the negotiation that they would have such a break. All participants, regardless of the opportunity to caucus, had 30 min to negotiate. Second, we videotaped the negotiations (with consent) and collected additional measures (described below).

Dependent Measures

There were five key dependent measures: negotiation performance, team cohesiveness, information exchange, judgment accuracy about the other party's interests, and perceptions of relative advantage.

Performance. The performance measures were identical to those used in Experiment 1: joint profit (including measures of compatible issues and logrolling performance) and relative profit.

Team cohesiveness. Prior to negotiation and after their initial preparatory meeting, participants negotiating in teams (either pairs of nonfriends or friends) indicated the extent to which they trusted their partner's bargaining skills, expected to work closely together as a team, and expected to understand their partner's actions and intentions during the negotiation ($\alpha = .81$). After negotiating, participants made these judgments once again ($\alpha = .78$). In all cases, participants used a 100-point scale. Both partners' scores were averaged to obtain team scores.

Information exchange. Videotapes of the negotiations were coded for information exchange. Four raters coded each videotape using a method developed by Thompson (1991). Raters counted each instance of four behaviors: (a) providing information about preferences among the options for a particular issue; (b) providing information about priorities between issues; (c) asking the other party about their preferences among options, and (d) asking the other party about preferences between issues. Raters coded 118 negotiations; the videotapes of the remaining 26 negotiations had audio problems and were not used in the analyses. The interrater reliability coefficient was .97.

Judgment accuracy. The accuracy of negotiators' judgments of the other party's interests was assessed immediately following the negotiation with method used in previous investigations (cf. Thompson & Hastie, 1990). Participants were given a blank payoff schedule and were told to fill in the blanks to indicate what they thought was the other party's payoff schedule. We examined participants' responses to determine whether they ordered the options on the compatible issues correctly (did they believe the opponent's interests were compatible or incompatible with their own?) and whether they ordered the pairs of logrolling issues correctly (did they believe the opponent's priorities between issues were different than or identical to their own?). For each pair of logrolling issues, participants scored 50 if their responses (correctly) indicated that their opponent's priorities between the pair were the opposite of their own; 25 if they indicated that both issues were of equal value to the opponent; and 0 if they indicated that the opponent's priorities between the issues were identical to their own. Because there were two sets of logrolling issues, total logrolling accuracy scores could range from 0–100; within teams, members' logrolling accuracy scores were averaged to yield a team score. For compatible issues, we assessed whether at least one person recognized that both parties had identical preferences on the compatible issues.

Perceptions of relative advantage. Perceptions of advantage were identical to those used in Experiment 1.

Results

Results are organized in terms of the dependent measures: performance (joint profit and relative profit), team cohesive-

ness, information exchange, judgment accuracy (for compatible issues and logrolling issues), and perceptions of relative advantage. The caucusing manipulation had no effects on any of the dependent measures and will not be discussed further.

Performance

Joint performance. As predicted, negotiations that involved at least one team (either friends or nonfriends) resulted in greater joint profit than did solo/solo negotiations, $F(1, 141) = 15.56, p < .001$; in particular, teams excelled at identifying compatible issues, $F(1, 141) = 6.15, p < .02$, and creating mutually beneficial tradeoffs (i.e., logrolling), $F(1, 141) = 11.29, p < .002$ (see Figure 2).[7] These findings replicate the major results of Experiment 1. Solo/solo negotiators earned on average $8,375_a$ points ($SD = 1,791$), whereas solo/team negotiators averaged $9,791_b$ points ($SD = 1,622$), and team/team negotiators averaged $10,134_b$ points ($SD = 1,869$). Among team negotiations, nonfriends/nonfriends made more profitable tradeoffs ($M = 33_a, SD = 34$) than did friends/friends ($M = 14_b, SD = 26$); $F(1, 138) = 6.30, p < .02$, with nonfriends/friends intermediate between the two ($M = 20_{ab}, SD = 28$).

Relative profit. When teams negotiated across the table from solos (solo/nonfriends and solo/friends), teams had an advantage over the solo, $F(1, 45) = 12.62, p < .001$. On average, teams earned 5,857 points ($SD = 1,795$) versus solos' 3,921 points ($SD = 2,245$)—a 1,936-point difference in earnings. In these negotiations, the relationship among team members had no significant effect on teams' advantage over solos; teams of friends and teams of nonfriends did not differ in profit advantage over solos ($F < 1$). Even though the solo negotiator was at a distinct disadvantage relative to a team, the solo did not perform worse than solos who faced solos; solos in the solo/team negotiations did not earn significantly less profit ($M = 3,921, SD = 2,245$) than did solos in solo/solo negotiations ($M = 4,187, SD = 895$), $F < 1$. Solos who negotiated with teams split a larger pie than did solos who negotiated with other solos.

Team Cohesiveness and Trust

Team relationship. Teams of friends had greater trust in their partner's skills, $F(1, 181) = 15.40 p < .001$ greater feelings of cohesion, $F(1, 181) = 5.13, p < .03$, and more understanding of their partner, $F(1, 181) = 7.73, p < .01$, than did teams of nonfriends, multivariate $F(3, 179) = 5.15, p < .005$. After negotiation however, teams of friends and nonfriends no longer differed in their trust in their partner's skill, $F(1, 181) = 2.17, ns$, nor in understanding of their partner ($F < 1$), although teams of friends continued to express more cohesiveness than teams of nonfriends, $F(1, 181) = 4.15, p < .05$.

Prior to negotiation, teams (both nonfriends and friends) who were to face friends felt more trust in their partner's skills, $F(2, 180) = 10.36, p < .001$, and greater cohesion, $F(2, 180) = 5.63, p < .005$, than teams who were to face solos or teams of

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[7] As in Experiment 1, the percentage of maximum possible performance is indicated in Figure 2 to allow comparisons among different performance measures. The statistical analyses are based on actual points.
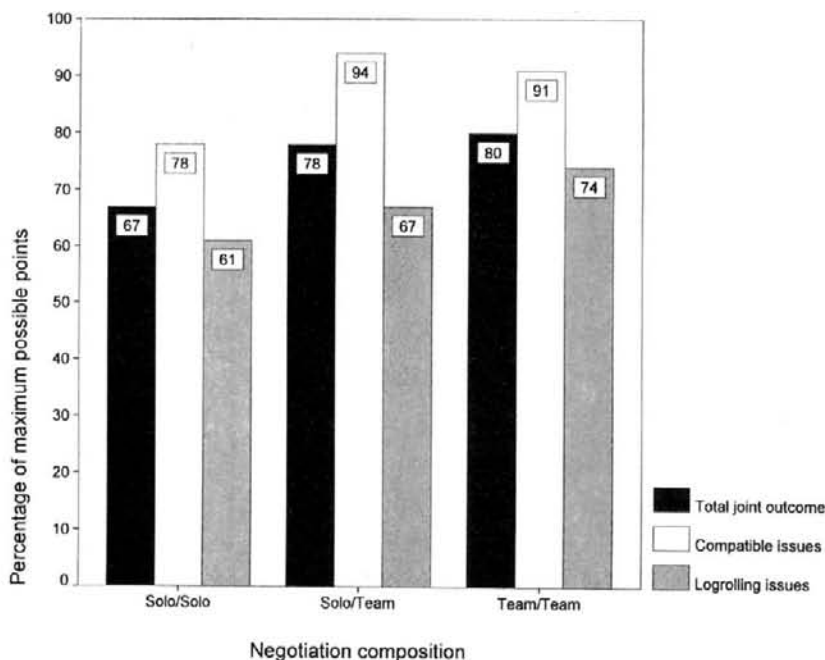
Figure 2. Negotiator composition and joint performance (Experiment 2).

nonfriends. After negotiation, teams who had faced teams of friends felt more cohesive, $F(2, 180) = 6.45$, $p < .01$, and understanding of their partner than teams who had faced solos or teams of nonfriends, $F(2, 180) = 2.96$, $p < .06$.

Cohesion and joint performance. We examined whether the mutual trust, cohesion, and understanding among team members affected performance, and whether friend versus nonfriend teams differed in performance, controlling for team cohesion. The prenegotiation trust, cohesion, and understanding scores of all parties to a negotiation were combined to yield a group score that could be used as a covariate in analyses of joint profit. Cohesion enhanced performance in team/team negotiations; greater cohesion, understanding, and trust between team members was associated with greater joint profit, B = .35, $F(1, 62) = 8.72$, $p < .005$. When controlling for team cohesion, nonfriend/nonfriend negotiators $(10,944_a)$ earned more than nonfriend/friend negotiators $(10,127_a)$, who in turn earned more than friend/friend negotiators $(9,362_b)$, $F(2, 62) = 3.79$, $p < .03$.

Information Exchange

Negotiation composition. We examined whether negotiation composition (solo/solo, solo/team, or team/team) affected information exchange. Because the variances between groups were heterogeneous for these measures, differences were tested using Welch's separate variance t test. The test compensates for variance heterogeneity by adjusting the degrees of freedom of the t test; thus, the degrees of freedom change from one analysis to another. Solo/solo and solo/team negotiators provided significantly less information about their priorities than did negotiators in team/team negotiations, $t(95) = 2.97$, $p <$

.005 (see Figure 3). Solo/solo negotiators asked fewer questions about their opponent's priorities than did solo/team or team/team negotiators, $t(55) = 1.69$ $p < .10$. Solo/solo and solo/team negotiators asked fewer questions about their opponents' preferences than did team/team negotiators, $t(102) = 2.30$ $p < .03$. Although the patterns of means were similar for providing information about preferences, no significant differences were found. Within team/team negotiations, there were no significant differences between friend/friend, nonfriend/friend, and nonfriend/nonfriend negotiations on the information exchange measures.

Information exchange and joint profit. Joint profit was positively correlated with the number of questions asked about the opponents' priorities ($r = .27$, $p < .005$) and the amount of information provided about priorities ($r = .23$, $p < .02$).

Information exchange and relative profit. In solo/team negotiations, teams who asked questions about their opponent's preferences earned more relative to their opponent than did teams who asked fewer questions ($r = .34$, $p < .05$). When solos revealed their preferences, teams' profit advantage increased ($r = .37$, $p < .05$); solos who provided more information about their preferences and priorities earned less relative to their opponents ($r = .31$, $p = .06$).

Judgment Accuracy

Logrolling issues. The results for judgment accuracy generally paralleled those for logrolling performance and information exchange. Participants in solo/solo negotiations were less accurate in their judgments about the other party's priorities ($M = 5.73_a$, $SD = 18.77$) than were participants in negotiations that included at least one team (solo/team: $M = 13.96_b$, $SD =$
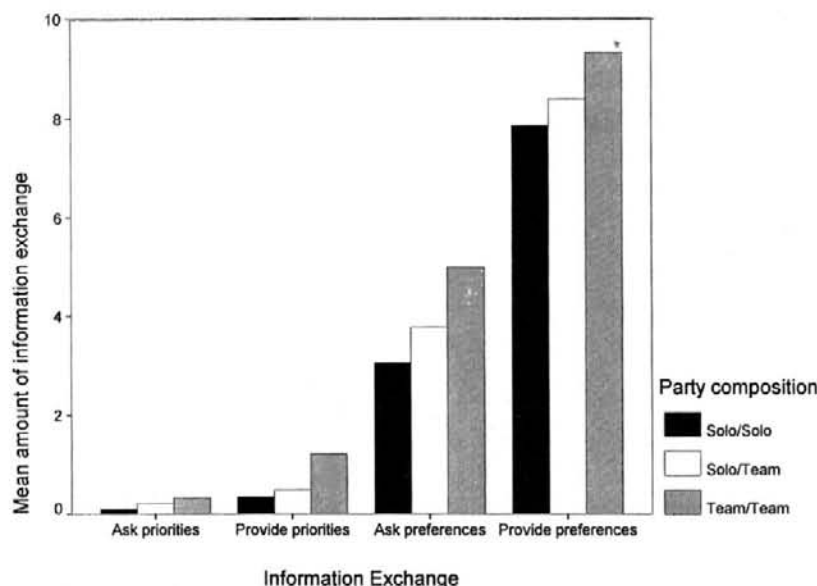
Figure 3. Negotiator composition and information exchange (Experiment 2). Graph depicts the mean number of each type of statement made during negotiation.

24.34; team/team: $M = 17.14_b$, $SD = 25.56$); $F(1, 262) = 6.48$, $p < .02$. Not all solo negotiators were inaccurate; solos in the solo/team negotiations were marginally more accurate ($M = 15.7$, $SD = 28.36$) than solos in the solo/solo negotiations, $F(1, 262) = 2.69$, $p = .1$, and did not differ in accuracy from their team opponents, $M = 12.65$, $SD = 26.26$; $F < 1$. Participants in nonfriends/nonfriends negotiations, $M = 22.00$, $SD = 27.16$, were more accurate in their judgments than were participants in friends/friends negotiations, $M = 11.69_b$, $SD = 26.49$; $F(1, 262) = 6.92$, $p < .01$, with nonfriends/friends negotiations intermediate in accuracy, $M = 16.91_{ab}$, $SD = 30.68$.

Compatible issues. A total of 33% of the solo/solo negotiators failed to recognize that retail space was a compatible issue; in contrast, only 6% of the solo/team negotiators and even fewer, 3%, of the team/team negotiators missed the issue, $\chi^2(N = 4, 144) = 21.97$, $p < .001$. Similarly, 13% of the solo/solo negotiators failed to recognize the compatible issue, building inspector, whereas only 4% of the solo/team and 7% of the team/team negotiators overlooked the issue, $\chi^2(N = 4, 144) = 8.60$, $p < .1$.

Perceptions of Relative Advantage

Prior to negotiation, participants felt an advantage over their opponents, overall $M = 5.77$, $SD = 18.53$; $F(1, 450) = 23.62$, $p < .001$. However, solos who anticipated facing teams felt at a distinct disadvantage, $M = -7.61$, $SD = 23.14$; moreover, they felt significantly less advantaged than did participants in other situations (i.e., solos facing solos, teams facing solos, and teams facing teams; $F[1, 455] = 17.22$, $p < .001$). Conversely, teams who anticipated negotiating against solos felt significantly advantaged compared to participants in other positions, $M = 11.30$, $SD = 18.13$; $F(1, 455) = 8.01$, $p < .01$. These findings replicate those reported in Experiment 1.

Solos who expected to negotiate against teams of friends felt more disadvantaged ($M = -13.33$, $SD = 25.18$) than did solos who expected to face teams of nonfriends, $M = -1.36$, $SD = 19.35$; $F(1, 450) = 5.29$, $p < .03$. In contrast, teams of friends who expected to face solos did not feel any greater advantage than did teams of nonfriends who faced solos ($F < 1$).

After negotiation, solos who had negotiated against a team felt they had been disadvantaged ($M = -19.02$, $SD = 29.64$), a perception that was significantly different than that reported by participants in other situations, $F(1, 455) = 27.14$, $p < .001$. Moreover, these participants felt more disadvantaged after negotiation than they had beforehand, $F(1, 45) = 7.67$, $p < .01$. In a complementary fashion, teams who had faced solos felt strongly advantaged compared to participants in other positions, $M = 20.98$, $SD = 23.77$; $F(1, 455) = 36.48$, $p < .001$ and felt even more advantaged than they had prior to negotiation, $F(1, 92) = 11.22$, $p < .002$.

As in Experiment 1, feelings of advantage were strongly related to profit distribution (team: $\beta = .41$, $F[1, 44] = 8.94$, $p < .005$; solo: $\beta = .29$, $F[1, 44] = 4.15$, $p < .05$). When team and solo profits were equal, teams nevertheless felt significantly advantaged (intercept $= 16.76$) $t(44) = 5.63$, $p < .001$, and solos felt significantly disadvantaged (intercept $= -14.39$), $t(44) = 3$, $p < .005$. Whereas solos who anticipated negotiating against a team of friends felt more disadvantaged than did those expecting to face a team of nonfriends, this difference faded after the negotiations ($F < 1$). However, whereas teams of friends facing solos and teams of nonfriends facing solos did not differ in feelings of advantage prior to negotiation, in retrospect, teams of friends felt a greater advantage than did teams of nonfriends (friends: $M = 26.36$, $SD = 19.45$; nonfriends: $M = 16.06$, $SD = 24.38$); $F(1, 450) = 4.28$, $p < .04$. In the nonfriends/friends negotiations, the teams of friends felt disadvantaged at the end

of negotiation, whereas their opponents—the teams of non-friends—felt advantaged (friends: $M = -3.38$, $SD = 28.79$; nonfriends: $M = 8.13$, $SD = 23.20$), $F(1, 450) = 4.62$, $p < .05$.

Discussion

The key findings of Experiment 2 may be summarized by the following conclusions: The presence of at least one team at the negotiating table increased joint profit, via logrolling and identification of compatible issues. This replicates the major finding of Experiment 1. A key mechanism that leads to the success of team negotiation is information exchange—particularly, the exchange of information about priorities. Teams exchanged more information than solo/solo negotiators. Furthermore, it was not necessary that both parties at the bargaining table be teams for information exchange to occur—even when teams negotiated against a solo, mutual information exchange was enhanced, which increased the likelihood of reaching an integrative agreement. The beneficial impact of information exchange was evidenced in the greater understanding (judgment accuracy) teams developed about the other party. Moreover, solos who negotiated against teams were more likely to develop an accurate understanding of their opponent's interests than solos who faced other solos. This suggests that information exchange and judgment accuracy in negotiation is a disjunctive task—it is sufficient that only one party instigate information exchange for all to benefit. In contrast to Experiment 1, teams in Experiment 2 outperformed solos. Although solos were relatively disadvantaged when facing a team, they did not earn less than solos facing another solo. Teams expanded the pie of resources to be divided and claimed a greater share of the joint resources. Teams of nonfriends were more likely to discover integrative potential than were teams of friends. This appears to be due to greater judgment accuracy, not greater information exchange.

General Discussion

The results of both experiments indicated that the presence of a team at the bargaining table increases the likelihood of reaching integrative agreements. In both team versus team and team versus solo negotiations, the amount of joint gain is greater than in solo versus solo negotiations. Teams excel in two skills: implementing mutually beneficial tradeoffs and discovering compatible issues. Two solos alone at the bargaining table often completely miss readily available opportunities to maximize joint gain. Although our results suggest that negotiation is a task in which two heads on the same side of the bargaining table are better than one, we do not claim that two heads (as opposed to three or four team members) are necessarily optimal nor that increasing the number of team members is always advantageous. There are inevitable trade-offs as the size of the negotiation team increases; coordination losses mount, and consensus and team unanimity are more difficult to achieve. Obviously, further research is necessary to explore the generality of the team effect. The key point of the present investigation is that teams appear to be better than solos at crafting integrative agreements.

A key factor by which teams develop integrative agreements is by exchanging information. Information exchange, in turn, leads to accurate judgments about the other party's interests and integrative agreement. Teams may share information as a way of reducing uncertainty and task ambiguity. Team members must reach consensus because individual members of teams may not impose settlements without the consent of other team members. If this restriction were relaxed, however, teams might engage in less information exchange. For example, consider a husband and wife team negotiating with a salesperson. If the couple determines that both must agree before any sale is made, we would expect the couple to seek and provide more information with the salesperson than if the couple agreed that only one of them had decision control in the situation. In the latter case, the couple would have little need to reach a mutual understanding of the situation.

In addition to examining information exchange, we examined the accuracy of negotiators' perceptions of the other party's interests. People may exchange information, but unless information is accurately perceived, it will have little impact on subsequent behavior and outcomes. Judgment accuracy strongly paralleled information exchange and performance. Teams of negotiators were more likely to have accurate perceptions about their opponents than were negotiations involving only solos. Again, the disjunctive nature of the task underlies this result. Even when solos negotiated against teams, solos were more likely to exchange information and develop accurate judgments about the interests of the team than were solos who negotiated against other solos. Team negotiation initiates a process of information exchange that is mutually beneficial for all parties.

We predicted that teams of friends would claim a larger share of the amount of joint resources than would teams of nonfriends, reasoning that friends would coordinate their behavior and strategies more than would nonfriends. However, this was not observed. Teams of friends were no more effective in claiming resources than were teams of nonfriends. Teams of nonfriends were more effective than were teams of friends in creating integrative agreements. Why? Teams of nonfriends did not exchange significantly more information than did teams of friends. However, teams of nonfriends made more accurate judgments than did teams of friends, suggesting that teams of nonfriends interpret information more accurately than do teams of friends. Teams of nonfriends may focus on accurately understanding the issues. In contrast, teams of friends may focus on solidarity and agreement. This distinction is similar to that of informational and normative influence (Deutsch & Gerard, 1955). Friendship among team members heightens normative concerns, whereas informational concerns and judgment accuracy suffer as a result.

As an illustration, consider a team of two individuals who are not acquainted—for example, two university professors assigned to an ad hoc committee. Because they have no prior relationship the issues in the negotiation become a focal point. The professors may feel that the best way to reach consensus as a team is to understand the issues and draw appropriate conclusions. In contrast, consider two long-time friends negotiating as a team. A primary concern among the friends is to maintain cohesion and agreement because disagreement may be especially threatening to their relationship (Fry, Firestone, & Williams, 1983). As a consequence, friends focus more on reaching

consensus than on understanding the issues. Consensus concerns do not necessarily disturb information exchange but may hinder interpretation of information because the analysis of information provides fertile ground for disagreement. In short, the two friends may be reluctant to get to the bottom of the issues because of the potential conflict that might arise, and therefore their judgment accuracy may suffer.

Extending this line of argument, it could be concluded that friendship among team members is always a disadvantage. However, we believe that this an overgeneralization, and certain conditions may facilitate the performance of teams of friends. One factor is the extent of experience friends have as a bargaining team. Individuals who have experience acting as a bargaining team may be more effective than teams of nonfriends. Teams of friends may develop and enact complex sequences of behavior as a result of repeated experience. For example, the good cop–bad cop interaction requires carefully sequenced behaviors.

In general, cohesion increased joint performance for both teams of friends and teams of nonfriends. Although teams of friends were more cohesive than were teams of nonfriends, when team cohesion was controlled for, teams of nonfriends outperformed teams of friends in terms of reaching integrative agreements. During the course of negotiation, cohesion among nonfriends increased dramatically; the difference in trust and understanding among individuals in these teams was nearly the level reached by long-time friends, with the exception of cohesion (friend teams were still significantly more cohesive than teams of nonfriends). There may appear to be a contradiction here. We have just argued that concerns for solidarity among friends hinders judgment accuracy, yet we observed that cohesion among teammates enhances performance. Cohesion, trust, and understanding may have different meanings to friends and nonfriends. Among nonfriends, cohesion may mean agreement on the issues and understanding of the situation. Among friends, cohesion may mean sticking together and supporting each other. Cohesion among nonfriends is information focused whereas cohesion among friends is relationship focused.

The other key component of negotiation is the distributive component. Even after the pie of resources is expanded (by means of integrative negotiation) the resources must be divided among the parties. We predicted that teams would outperform solos on the distributive dimension due to teams' higher performance expectations (an intrateam dynamic) and team members' ability to persuade or apply social pressure on the solo (an interteam dynamic). In Experiment 1, teams of negotiators had higher performance expectations than did solos. Furthermore, both teams and solos believed teams had the advantage in the bargaining situation. This would seem to set the stage for a team advantage, especially if self-fulfilling prophesies were operating. However, teams did not consistently outperform solos. We reasoned that because distributive negotiation requires coordination among team members, teams may have suffered from coordination losses. In Experiment 2, we provided what we believed to be ideal conditions for creating a competitive advantage for teams. Team members were allowed to caucus privately in the negotiation and were teamed with a friend. However, teams of negotiators outperformed their solo opponents regardless of caucusing opportunity and friendship among team

members. Solos who negotiated against a team earned on average only about 40% of the total amount of joint resources whereas the team claimed the substantially greater percentage, 60%. Because the experimental task and procedures were the same as those used in Experiment 1, it is not clear why teams excelled at the distributive component in Experiment 2, but not Experiment 1.

Despite the findings for performance, teams and solos in both experiments strongly believed that teams were advantaged in the negotiation and that solos were at a strategic disadvantage when facing a team at the bargaining table. This belief was strongest before negotiation and dissipated somewhat following negotiations in Experiment 1. However, in Experiment 2 (when teams did in fact show a bargaining advantage), the belief in the advantage of the team increased over the course of bargaining. Negotiators' beliefs appear to be somewhat congruent with actual performance.

Although the results of Experiment 2 show a team advantage, the solo did not do worse in an absolute sense negotiating against a team than if he or she negotiated against another solo. Teams increased the overall value of resources to be divided. Even though teams claimed 60% of the resources in Experiment 2, leaving the solo with only 40%—the 40% was roughly equivalent (in monetary value) to 50% of the smaller pie created when two solos negotiated. Although the solo who negotiates against a team may feel at a disadvantage, the disadvantage is only relative.

The decision to negotiate as a team or as a solo is an important one that affects many people in a variety of negotiation situations. Our research on team negotiations suggests that teams may be an effective way of increasing the value of negotiated interactions.

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(Appendix follows on next page)

Appendix

Payoff Schedules for Real Estate Negotiation Task

Real Estate Developer's payoff schedule

City financing	Retail space	Local subcontractors	Open space
$500,000 (0)	0 sq ft (−2400)	4 (0)	30% (0)
$625,000 (1000)	1500 sq ft (−1800)	3 (400)	25% (600)
$750,000 (2000)	3000 sq ft (−1200)	2 (800)	20% (1200)
$875,000 (3000)	4500 sq ft (−600)	1 (1200)	15% (1800)
$1,000,000 (4000)	6000 sq ft (0)	0 (1600)	10% (2400)

Condo:Apt ratio	Low/mod-income units	Height	Building inspector
3:1 (0)	10% (0)	2 stories (−6000)	Wottle (0)
2:1 (800)	8% (200)	3 stories (−4500)	DeWitt (300)
1:1 (1600)	6% (400)	4 stories (−3000)	Gillispie (600)
1:2 (2400)	4% (600)	5 stories (−1500)	Hawes (900)
1:3 (3200)	2% (800)	6 stories (0)	Conibear (1200)

Planner's payoff schedule

City financing	Retail space	Local subcontractors	Open space
$500,000 (1600)	6000 sq ft (0)	4 (4000)	30% (2400)
$625,000 (1200)	4500 sq ft (−600)	3 (3000)	25% (1800)
$750,000 (800)	3000 sq ft (−1200)	2 (2000)	20% (1200)
$875,000 (400)	1500 sq ft (−1800)	1 (1000)	15% (600)
$1,000,000 (0)	0 sq ft (−2400)	0 (0)	10% (0)

Condo:Apt ratio	Low/mod-income units	Height	Building inspector
3:1 (800)	10% (3200)	2 stories (0)	Conibear (1200)
2:1 (600)	8% (2400)	3 stories (−1500)	Hawes (900)
1:1 (400)	6% (1600)	4 stories (−3000)	Gillispie (600)
1:2 (200)	4% (800)	5 stories (−4500)	DeWitt (300)
1:3 (0)	2% (0)	6 stories (−6000)	Wottle (0)

Note. Number of points participants receive for each alternative are indicated in parentheses. Mod = moderate.