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Group Heterogeneity and Team Negotiation

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Abstract

Two-party negotiations in organizations are often carried out by teams. However, the influence of team composition on negotiation outcomes remains inadequately studied. Drawing from both the literature of team diversity and that of team negotiation, this study proposed that the presence of at least one heterogeneous group in the two-party team negotiation would help enhance the joint outcome. Both increased information exchange and enhanced creativity were hypothesized as underlying processes contributing to this heterogeneous group advantage. The advantage of the heterogeneous group in team negotiation was also thought to depend on process accountability. The difference in joint outcomes between negotiations with at least one heterogeneous group and those with only homogeneous groups was greater when negotiators were held accountable for their judgments and decisions made during the negotiation than when they were not held accountable.

The literatures on negotiation and group process or teamwork are largely independent of each other (O'Connor, 1997; Peterson & Thompson, 1997). The teamwork literature has considered how team members coordinate their behaviors to achieve shared goals, whereas the negotiation literature is primarily interested in examining how individuals interact with each other to achieve mutual agreement (Peterson & Thompson, 1997). However, researchers recently started to pay attention to how people coordinate their efforts to accomplish competitive negotiation tasks. Thompson, Peterson, and Brodt (1996) examined whether a team negotiation, wherein two or more people unite as a single party, is more effective than one-on-one negotiation. Situations were created in which participants involved in one of team/team, team/solo, or solo/solo integrative negotiation. Consistent results suggested that when at least one party to a negotiation was a team, outcomes were more integrative than when both parties were solos. Knowing that teams perform better than solos in integrative negotiations, the next question to be asked is what kind of team performs better. For example, after being told that team negotiators perform better than solo negotiators, managers may still find it difficult to decide whether they should create negotiation teams with people from the same department and same hierarchical level, or teams of people with very different backgrounds. Unfortunately, our knowledge of the later issue is more restricted than that of the former except for the following two studies. Thompson and colleagues (1996) examined the impact the relationships between team members had on negotiation performance and found that teams of nonfriends performed better than teams of friends. After controlling for team cohesion, both nonfriend/nonfriend and nonfriend/friend negotiations achieved more integrative outcomes than friend/friend negotiations. Peterson and Thompson (1997) examined whether negotiation performance of nonfriend and friend negotiators depended on information distribution and accountability. Their

findings are generally consistent with the idea that groups of nonfriends performed better when there were externally imposed structures of information distribution and accountability, whereas groups of friends performed better when there was no external restrictions. In the meantime, their results also confirmed the previous finding that the presence of at least one nonfriend group negotiator increased the integrativeness of the team negotiation.

However, the studies above examined only the friendship-nonfriendship relationship, which is not a prominent representation of the relationship schema in organizational settings. Considering the number of negotiations carried out and the amount of money or other important resources being negotiated in organizational settings, my investigation, then, focused on examining whether heterogeneous teams performs better in integrative negotiation, why they perform better, and under what condition they perform better. Specifically, I focused on examining whether negotiations with at least one heterogeneous team negotiator (heterogeneous/heterogeneous, heterogeneous/homogeneous negotiations) achieve higher joint gains than those with homogeneous negotiators (homogeneous/homogeneous negotiation); whether such advantage of group heterogeneity can be attributed to increased information exchange and enhanced creativity; and whether this advantage of group heterogeneity is contingent on the extent to which negotiators are held accountable for judgments and decisions they made during negotiations.

Group Heterogeneity

Group heterogeneity is one of the most extensively studied concepts in organizational settings and bear important consequences in organizational life. People routinely classify themselves and others based on social categories such as age, gender, race, and status and evince strong preferences for groups based on these social categories (Tajfel and Turner, 1986).

Furthermore, homogeneous groups are more likely than heterogeneous groups to be socially integrated and experience higher satisfaction and lower turnover (e.g., O'Reilly, Caldwell, and Barnett, 1989). Homogeneous groups also sometimes outperform heterogeneous groups (e.g., Clement & Schiereck, 1973; Fenelon & Megargee, 1971; Jackson, 1991). However, important benefits accrue from demographic heterogeneity in organizations (e.g., Thomas & Ely, 1996). For example, cognitive and experiential diversity may add to the perspectives available within an organization and facilitate clarifying, organizing, and combining novel approaches to accomplishing goals (e.g., Hoffman & Maier, 1961). Further, work units composed of diverse members can tap into broad networks of contacts, making it likely that useful new information will be incorporated into decisions, which can increase commitment to choices and enhance responsiveness to rapidly changing organizational environments (Donnellon, 1993; Tushman, 1977).

Because research findings on the effects of group diversity are mixed and research has not examined team negotiation as a context of group diversity, no evidence can be found in the literature regarding the difference in negotiation performance between heterogeneous and homogeneous teams. However, Thompson and her colleagues' finding (1996) that nonfriends consistently achieved higher joint gain than friends in team negotiation suggests that heterogeneous groups will perform better than homogeneous groups in team negotiation.

One of the most significant differences between teams of strangers and teams of friends is the extent to which group members are similar to each other. The extant literature on similarity and attraction suggested that we are more attracted to people who are similar to ourselves (Brewer, 1979; Byrne, 1971; Locke & Horowitz, 1990; Tajfel, 1981). Friends are more likely to share similar background, experience, or even personality. Even if sometimes friends may have

different demographics, they tend to perceive themselves to be more similar. As transactive memory suggested, one feature of close relationships is the development of shared systems for encoding, storing, and retrieving information that allows the members of groups and teams to process information together efficiently (Peterson & Thompson, 1997; Wegner, 1986). On the contrary, groups of strangers are more likely to be different or perceive themselves to be different. Therefore, without devaluing other social features associated with the friendship-nonfriendship relationship, the friendship-nonfriendship relationship also reflects the difference between homogeneous and heterogeneous groups. Because nonfriends consistently achieved higher joint gains than friends in team negotiation, I propose that heterogeneous groups perform better than homogeneous groups in team negotiations.

Heterogeneous groups achieve higher joint outcome in team negotiation than homogeneous groups because of the two underlying processes including increased information exchange and creativity.

Underlying Processes

Information Exchange

Integrative negotiation involves the creation and discovery of joint gains (Bazerman & Neale, 1983; Neale & Bazerman, 1991). By exchanging information, negotiators may develop accurate judgments about the other party's interests and create mutually beneficial integrative agreements (Thompson, 1991).

Teams are more likely to engage in information exchange than solos. According to Thompson and colleagues (1996), 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. The results of the study showed that team negotiations (team/team and team/solo) involved more information exchange activities such as asking questions and providing preference information than did solo negotiators (solo/solo). The results also showed that increased information exchange led to higher joint outcomes in team negotiation.

Following the same logic, heterogeneous groups should seek more information exchange during negotiation than should homogeneous groups. The need to coordinate actions is much higher in heterogeneous groups than in homogenous groups because members of heterogeneous groups have more diverse backgrounds and higher levels of conflict and are less socially integrated than homogeneous groups (O'Reilly, Caldwell, and Barnett, 1989). The need for reduced ambiguity is also higher in heterogeneous groups than in homogeneous group because trust among members of heterogeneou groups is lower than that among members of homogenous groups. The increased information exchange of heterogeneous groups in turn leads to higher joint outcome in team negotiation.

Creativity

Integrative bargaining requires not only the ability to acquire and interpret complex information about the other party's interests, but also the ability to identify or invent creative ways to meet those interests. One of the key factors to success in integrative negotiation is to relate seemingly unrelated or separate preferences. The story of the two sisters arguing over an orange (c.f. Thompson et al., 1996) is a good illustration of inventing new ways to combine

seemingly disparate preferences (juice and peel). The two sisters can derive a more integrative way to divide the orange—giving one all of the juice and the other all of the peel only after they realized that their preferences are not necessarily contradictory and can be combined in some ways. To the extent that creativity has often been defined as the ability to see relatedness in diverse stimuli that normally seem unrelated (Isen, Daubman, & Nowicki, 1987; Mednick, 1962), more creative negotiators should be able to achieve higher joint outcomes in integrative negotiation than less creative negotiators. Kurtzberg (1998) showed that joint outcome in integrative negotiation was positively related to negotiators' level of creativity so that the higher the level of creativity, the higher the joint outcomes.

Even though heterogeneous groups were often characterized by low cohesiveness, they are also characterized as being more creative and adaptive (e.g., Chatman, Polzer, Barsade, & Neale, 1998; Hoffman, 1979; Nemeth, 1992). There are several reasons why heterogeneous groups have higher creativity than homogeneous groups. First, differences in background such as gender, age, education, and job may add to the perspectives available within a group and facilitate clarifying, organizing, and combining novel approaches to accomplishing goals (e.g., Hoffman and Maier, 1961). Second, certain level of conflict resulting from group heterogeneity might help break the "group thinking" that is typically found to be a major obstacle to creative thinking. Third, members of heterogeneous groups are less concerned about preserving group harmony and cohesiveness. As a result, they are more likely to challenge each other and facilitate creative thinking.

Taken together, I propose that heterogeneous groups will achieve higher joint outcomes in team negotiation than will homogeneous groups because of greater information exchange and enhanced creativity.

A question remains unanswered regarding whether the presence of only one heterogeneous team negotiator in the negotiation is sufficient to increase joint outcome or both parties have to be heterogeneous. Previous studies suggest that the former is true. Thompson (1991) found a strong reciprocation effect in information exchange during negotiation: if one person provides information, the probability that the other will provide information in kind significantly increases, enhancing the likelihood of integrative agreement. Thompson and colleagues (1996) further showed that the presence of only one team in the negotiation is sufficient to increase level of information exchange. Kurtzberg (1998) also showed that a higher level of creativity in one negotiator of the pair was associated with essentially the same level of gain as when both members of the pair displayed higher creativity. The presence of only one negotiator with higher creativity is sufficient to identify the potential for joint gain and make corresponding offers.

Therefore, I propose the following hypotheses:

Hypothesis 1: Heterogeneous negotiations (heterogeneous/heterogeneous, heterogeneous/homogeneous negotiations) should reach higher joint gains than homogeneous/homogeneous negotiations.

Hypothesis 2: Group heterogeneity (heterogeneous/heterogeneous and heterogeneous/homogeneous versus homogeneous/homogeneous negotiations) increases joint gain because of both increased information exchange and enhanced creativity.

Process Accountability

Although I have proposed that heterogeneous groups perform better than homogeneous groups in team negotiation, it is still unclear whether the advantage of heterogeneous groups in

team negotiation can be achieved in any kind of situation. In other words, under what condition do heterogeneous groups perform better than homogeneous groups in team negotiations?

Oftentime negotiators in organizations bargain for others' interests and are held accountable for the decisions they made (Tetlock, 1985, 1992). Previous studies suggest that the impact of group heterogeneity on team negotiation is contingent on the extent to which negotiators are held accountable for their judgments and decisions or so called process accountability.

Research suggests that negotiators enter the negotiation with the fixed-pie-perception that one's loss is the other's gain. Unless this belief is released, it is unlikely that an integrative solution can be achieved (Bazerman & Neale, 1983; Thompson & Hastie 1990). Studies have shown that information exchange helps release this fixed-pie-perception (e.g. Thompson, 1991). de Dreu, Koole, & Steinel (2000), however, suggested that in addition to exchanging of information, negotiators also have to systematically process information made available to release the fixed-pie-perception and enhance integrativeness of the negotiation. de Dreu and colleagues (2000) showed that process accountability (Simonson & Staw, 1992) led to increased encoding of information, which in turn was responsible for the release of the fixed-pie-perception. de Dreu and colleagues' finding (2000) essentially suggested an interaction between information exchange and encoding of information such that information exchange will a have stronger impact on negotiation outcomes when information made available is extensively encoded than when it is inactively encoded.

Encoding of information is also important in the relationship between creativity and joint outcomes of team negotiations. Although many researchers have proposed their own version of the information processing model (e.g. Wyer & Srull, 1989), one feature in common is that they

all tried to address the following questions: how do individuals encode information, how do they store information, and how do they process this information either directly drawn from encoding or retrieved from memory? The order from encoding to storage and to further processing comprises an information processing hierarchy. Both encoding and storage are at the lower level of the hierarchy because information has to be encoded or retrieved before it can be further processed. Creative thinking, however, is at the higher level because it involves inventing combinations of different information that has already been encoded or stored. The hierarchy also means that the implementations of processes at the higher level depend on successful completions of the processes at the lower level, suggesting that even a very creative person cannot utilize his or her creativity unless relevant information has been encoded or retrieved. Higgins and Chaires (1980) showed that lower level stimulus encoding influenced individuals' performance in a creativity test. By priming differentiated and undifferentiated linguistic construction (e.g. "tray and tomatoes" versus "tray of tomatoes")—a manipulation of accessibility to interrelational constructs, they showed that individuals in the differentiated condition (the priming of "and" construct) are more likely to recognize the stimulus (tacks in a box) as separate objects (tacks and a box), a recognition that facilitated their creative use of the box. If we took an individual's level of creativity into account in Higgins and Charies's paradigm, it would not be very difficult to conclude that whether more a creative person actually achieves more success in the creativity test is contingent on the accessibility of the interrelational construct, which is a lower level information processing construct.

Because the impact of both information exchange and creativity on negotiation outcomes are contingent on the encoding of information, which is determined by process accountability,

whether heterogeneous groups perform better than homogeneous groups should be contingent on levels of process accountability. Therefore, I propose the following interaction hypothesis:

> Hypothesis 3: The difference in joint outcomes between heterogeneous negotiations (heterogeneous/heterogeneous, heterogeneous/homogeneous negotiations) and homogeneous negotiations (homogeneous/homogeneous negotiations) will be greater when process accountability is high than when process accountability is low.

Method

Participants

A total of 480 undergraduate students participated in the experiment.

Negotiation task

I used the negotiation task designed by Thompson and Hastie (1990) for individual-to-individual integrative negotiation. de Dreu and colleagues (2000) have also used this negotiation task.

The task concerns the sale of a car. The buyer and seller teams were required to reach agreement on interest, stereo equipment, warranty, and delivery. On each of these four issues, interests were opposed. However, not all issues were equally important to a particular negotiator, and issue priority differed between buyer team and seller team (i.e., interest was least important to the buyer team and most important to the seller team, whereas the reverse held for the warrantee: see appendix). Thus, there was integrative potential in that settlement on 10% interest, Type C stereo, 30 months warrantee, and 3 weeks delivery time yielded higher joint outcomes than an equal-split compromise on all four issues.

Following de Dreu and colleagues (2000), teams were motivated to take the negotiation seriously by being told that points they obtained from the negotiation would be converted into lottery tickets and that those lottery tickets would enter them in a draw for a $25 prize for each team member. Thus, the more points teams obtained, the more lottery tickets they got and the greater their chances of winning a cash prize.

Experimental design

The experiment used a 3×2×2 design (see table 1) with complete random assignment of participants to conditions. There were two independent variables: group heterogeneity and process accountability. Group heterogeneity has three levels: heterogeneous/heterogeneous, heterogeneous/homogeneous, and homogeneous/homogeneous negotiations. Although I can potentially cross the three levels with participants' roles as buyer and seller (e.g. heterogeneous buyer/homogeneous seller versus homogeneous buyer/heterogeneous seller), such an extension is not necessary because the negotiation roles are symmetric in terms of earning potential (Thompson, et al., 1996). Thompson and colleagues (1996) showed that there was no significant difference on the joint outcome as a function of role. Therefore, I collapsed across roles and maintained the current three negotiation compositions. There were two types of accountability: high versus low. Because I also measured team negotiators' level of creativity, to deal with the possibility that the creativity test and negotiation task will sensitize each other, I counter balanced the two such that half of the participants took the creativity test first and then received the negotiation task, whereas the other half started from the negotiation task and then received the creativity task. Ten groups of four were assigned to each condition. In each of the groups, two of the participants played the role of seller and the other two played the role of buyer. Table 1 summarized the design.

Procedure

Undergraduate students who were willing to participate in this experiment were asked to register with the experimenter one week before the experiment. At the registration, students were asked to indicate their student ID, gender, and race. They were also asked to write down five hobbies (e.g. reading, sports, movies, etc.). Upon arrival to the experiment, participants were assigned to one of the two roles (buyer and seller) and were given name tags to identify their roles. Each buyer (seller) was told that he or she would be paired with another buyer (seller) who was either very similar (homogeneous group) or dissimilar (heterogeneous group) to him or her to negotiate against another pair of sellers (buyers). Each pair of participants was then led to a separate laboratory room where an experimenter gave them instructions. Both the giving of name tags and the assignment to heterogeneous versus homogeneous groups were completely random, however, participants were led to believe that they have been assigned to roles and groups for reasons. The experimenter achieved this by pretending to engage in activities such as confirming student ID and checking a name list during check in.

In the heterogeneous groups, experimenters told participants that they had been assigned to the same group because the background information they provided (demographics and hobbies) showed that they were very different. The experimenter then left the room and gave the participants 10 minutes to think about and write down how they differed from each other. The experimenter returned with materials including the process accountability manipulation, creativity test, and instruction of the negotiation task (in the creativity-test-first condition, participants received a creativity test right after the 10 minute discussion and were then given the negotiation task instruction, whereas in the negotiation-test-first condition, after the 10 minute discussion, participants were immediately given the negotiation task, receiving the creativity test

only after finishing the negotiation). Again, random assignment was used here. Procedures in homogeneous groups were the same as those in heterogeneous groups except that participants were told that they had been assigned to the same group because they were so similar to each other based on the background information provided, and they were given 10 minutes to think about and write down how they were similar to each other.

Participants in all conditions were told to earn as many points as possible for themselves (individual pay-offs would be the total amount earned by the team) as determined by their payoff schedule, and that failure to reach agreement would result in 0 points for both parties.

After being given the negotiation instructions, participants were allowed another 10 minutes to prepare for the negotiation task (participants were not given any specific instruction regarding how to prepare for the negotiation), participants were then led to another separated room to begin negotiation. During the negotiation, members of one of the teams were seated at one side of the table while those of the other sat at the opposite side. The negotiation process was video taped. Participants have been asked for their approval of using this videotaping and its use for future research purpose. Each negotiation was expected to take no more than 25 min (Thompson & Hastie, 1990). After the negotiation, participants were asked to a complete post-experiment questionnaire and some of them (those in the negotiation-task-first condition) were asked to perform a creativity test (participants were told that they were going to do a kind of word association task). They were then paid and left the experiment.

Manipulations

Group heterogeneity. As I described in the procedure section, instead of manipulating the actual differences among team members, I manipulated team member's subjective group difference. This manipulation is similar to the idea of personal identity where an individual's

conception of him-or-her-self is defined primarily in terms of those unique individual attributes that differentiate the self from others (Kramer, 1991; Kramer & Brewer, 1986).

Process accountability. I manipulated process accountability following de Dreu and colleagues' example (2000). Prior to negotiation, each member in the high process accountability condition received a special memo. The memo explained that a few days after the study, interview sessions would be conducted by an experienced negotiator interested in "the ways the team negotiated, the decisions the team made, the procedures the team followed, and why the team pursued or dropped particular strategies." Teams were asked to come up with two times they were available for such an interview and to authorize the use of videotaping from the negotiation for this particular interview. Moreover, the memo also emphasized that all team members were held equal accountable for justifying their team's negotiation process. Finally, teams in the process accountability condition received a sheet of paper entitled "accountability interview" that they could use to take notes on during the negotiation that "they felt that might be helpful during the interview." Participants in the low process accountability did not receive the special memo or any other information about the interview. They were asked only to authorize the use of the videotaping for scientific purposes. After the experiment, all participants in the high process accountability were given apologies that the interview schedule was just part of the experiment manipulation and there was no such interview.

Dependent Measures

Information exchange. Following Thompson and colleagues (1996), 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. Interrater reliability was calculated using Kappa coefficient.

Creativity. Creativity was measured using the Remote Associates Test (RAT) (Mednick, 1962). The RAT is especially appropriate in this study because it measures an individual's ability in relating seemingly unrelated elements, an ability that is very important in integrative negotiation (Mednick, 1962).

In the test, participants were provided with stimulus elements from mutually remote associative clusters and asked to find a criteria-meeting mediating link which combined them. One example of this test would be: the participant is required to find a fourth word which could serve as a specific kind of associative connective link between three disparate words: rat, blue, and cottage. The answer to that is "cheese." "Cheese" is a word which is present in the word pairs "rat-cheese," blue-cheese," and "cottage-cheese." (The example is not part of the test). The test has 30 items and the participant was allowed 40 minutes; his score is the number right (Mednick, 1962). The RAT has been found to have high reliability: in two independent samples, the Spearman-Brown reliabilities of the RAT are above .90 (Mednick, 1962).

Joint outcome. Joint outcome was calculated by summing the points to the buyer team and to the seller team on all four issues. The closer this figure approached 8000, the more the negotiators integrated their own and other's interests.

Difference perception. At the end of each negotiation, each team member was asked to rate "to what extent do you think you are different from the other member of your group?" from 1 (not different at all) to 7 (very different). These scores were then aggregated to create a heterogeneity measure for the team.

Accountability perception. Team members were also asked after each negotiation "to what extent do you think you are accountable for the negotiation process?" This question was, again, scaled from 1 (not at all) to 7 (very much). These scores were aggregated to create a team accountability measure.

Analysis

Hypothesis 1 is about differences on the dependent variable across different conditions. ANOVA is an appropriate analysis for this purpose. When I compared heterogeneous negotiation (heterogeneous/heterogeneous and heterogeneous/homogeneous) with homogeneous negotiation (homogeneous/homogeneous), the sample size in the former condition was two times larger than that in the later condition. However, because ANOVA is robust to unequal sample sizes when using type III sum of squires, unequal sample size across conditions should not be a big concern in this study. Assuming equal sample sizes in each cell, Hypothesis 1 would be supported when (A+B+C+D+E+F+G+H)/8 > (I+J+K+L)/4. Hypothesis 2 is about the underlying processes of team negotiation. To test whether information exchange mediates the relationship between group heterogeneity and joint outcome, I employed the regression methods proposed by Baron and Kenny (1986). According to Baron and Kenny, information exchange mediates the relationship when (a) group heterogeneity (heterogeneous/heterogeneous and heterogeneous/homogeneous coded as 1, homogeneous/homogeneous coded as 0) increases joint outcome; (b) information exchange increases joint outcome; and (c) when information exchange is controlled, group heterogeneity does not lead to increased joint outcome. The test of whether creativity is another underlying process is less clean than that of the information exchange because creativity is not measured in the course of the negotiation, instead, it is measured either before or after the negotiation task. Therefore, the causal link between creativity and joint outcome cannot be

established in cases where creativity is measured after the negotiation. Nevertheless, I can show that after excluding variance accounted for by creativity (by including creativity in the regression of group heterogeneity and joint outcome), the relationship between group heterogeneity and joint outcome was weakened. Hypothesis 3 is about the interaction between process accountability and group heterogeneity. I used ANOVA to test this hypothesis. Simple effects were examined and the result was plotted (see Figure 1 for an example).

References

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51, 1173-1182.

Bazerman, M. H., & Neale, M. A. (1983). Heuristics in negotiation: Limitations to effective dispute resolution. In M. H. Bazerman & R. J. Lewicki (Eds.), Negotiating in organizations: 51-67. Beverly Hills, CA: Sage.

Brewer, M. (1979). In-group bias in the minimal intergroup situation: A cognitive-motivational analysis. Psychological Bulletin, 86, 307-324.

Byrne, D. (1971). The attraction paradigm. New York: Academic Press.

Chatman, J. A., Polzer, J. T., Barsade, S. G., & Neale, M. A. (1998). Being different yet feeling similar: The influence of demographic composition and organizational culture on work processes and outcomes. Administrative Science Quarterly, 43, 749-780.

Clement, D. E., & Schiereck, J. J. Jr. (1973). Sex composition and group performance in a visual detection task. Memory and Cognition, 1, 251-255.

de Dreu, C. K. W., Koole, S. L., & Steinel, W. (2000). Unfixing the fixed pie: a motvated information-processing approach to integrative negotiation. Journal of Personality and Social Psychology, 79, 975-987.

Donnellon, A. (1993). Crossfunctional teams in product development: accommodating the structure to the process. Journal of Product Innovation Management, 10, 377-392.

Fenelon, J. R., & Megargee, E. I. (1971). Influence of race on the manifestation of leadership. Journal of Applied Psychology, 55: 353-358.

Higgins, E. T., & Chaires, W. M. (1980). Accessibility of interrelational constructs: implications for stimulus encoding and creativity. Journal of Experimental Social Psychology, 16, 348-361.

Hoffman, L. R. (1979). Applying experimental research on group problem solving to organizations. Journal of Applied Behavioral Science, 15, 375-391.

Hoffman, L. R., & Maier, N. R. F. (1961). Quality and acceptance of problem solutions by members of homogeneous and heterogeneous groups. Journal of Abnormal and Social Psychology, 62, 401-407.

Isen, A. M., Daubman, K. A., & Nowicki, G. P. (1987). Positive affect facilitates creative problem solving. Journal of Personality and Social Psychology, 52, 1122-1131.

Jackson, S. E. (1991). Team composition in organizational settings: Issues in managing an increasingly diverse workforce. In S. Worchel, W. Wood, and J. Simpson (eds.), Group process and productivity, 138-173. Beverly Hills, CA: Sage.

Kramer, R. M. (1991). Intergroup relations and organizational dilemmas: the role of categorization processes. In L. L. Cummings, & B. M. Staw (Eds.), Research in Organizational Behavior, 13, 191-228. Greenwich, CT: JAI Press.

Kramer, R. M., & Brewer, M. B. (1986). Social group identity and the emergence of cooperation in resource conservation dilemmas. In H. Wilke, D. Messick, & C. Rutte (Eds.), Experimental Social Dilemmas, 139-153. Frankfurt, Germany: Peter Lang Publishing Company.

Kurtzberg, Terri R. (1998). Creative thinking, cognitive aptitude, and integrative joint gain: A study of negotiator creativity. Creativity Research Journal, 4, 283-293.

Lerner, J. S., & Tetlock, P. E. (1999). Accounting for the effects of accountability. Psychological Bulletin, 125, 255-275.

Locke, K. S., & Horowitz, L. M. (1990). Satisfaction in interpersonal interactions as a function of similarity in level of dysphoria. Journal of Personality and Social Psychology, 58, 823-831.

Mednick, S. A. (1962). The associative basis of the creative process. Psychological Review, 69, 220-232.

Neale. M. A., & Bazerman, M. H. (1991). Cognition and rationality in negotiation. New York: Free Press.

Nemeth, C. (1992). Minority dissent as a stimulant to group performance. In S. Worchel, W. Wood, and J. Simpson (eds.), Group process and productivity, 95-111. London: Sage.

O'Connor, K. M. (1997). Groups and solos in context: the effects of accountability on team negotiation. Organizational Behavior and Human Decision Process, 72, 384-407.

O'Reilly, C. A., III, Caldwell, D. F., & Barnett, W. P. 1989. Work group demography, social integration and turnover. Administrative Science Quarterly, 34, 21-37.

Peterson, E., Thompson, L. (1997). Negotiation teamwork: the impact of information distribution and accountability on performance depends on the relationship among team members. Organizational Behavior and Human Decision Process, 72, 364-383.

Simonson, I., & Staw, B. M. (1992). Deescalation strategies: A comparison of techniques for reducing commitment to losing courses of action. Journal of Applied Psychology, 77, 419-426.

Tajfel, J. (1981). Human groups and social categories. London: Cambridge University Press.

Tajfel, H., & Turner, J. C. (1986). The social identity theory of inter-group behavior. In S. Wrochel and W. G. Austin (eds.), Psychology of Intergroup Relations, 7-24. Chicago: Nelson-Hall.

Tetlock, P. (1985). Accountability: a social check on the fundamental attribution error. Social Psychology Quarterly, 48, 227-236.

Tetlock, P. (1992). The impact of accountability on judgment and choice: toward a social contingency model. Advances in Experimental Social Psychology, 25, 331-376.

Thomas, D. A., & Ely, R. J. (1996). Making differences matter: A new paradigm for managing diversity. Harvard Business Review, 74, 79-90.

Thompson, L. (1991). Information exchange in negotiation. Journal of Experimental Social Psychology, 27, 161-179.

Thompson, L. L., & Hastie, R. (1990). Social perception in negotiation. Organizational Behavior and Human Decision Process, 47, 98-123.

Thompson, L., Peterson, E., & Brodt, S. E. (1996). Team negotiation: an examination of integrative and distributive bargaining. Journal of Personality and Social Psychology, 70, 66-78.

Thompson, L., Peterson, E., & Kray, L. (1995). Social context in negotiations: an information-processing perspective. In R. Kramer & D. Messick (Eds.), Negotiations as a social process: 5-36. Beverly Hills, CA: Sage.

Tushman, M. L. (1977). Special boundary roles in the innovation process. Administrative Science Quarterly, 22, 587-605

Wegner, D. (1986). Transactive memory: A contemporary analysis of the group mind. In B. Mullen and G. Goethals (Eds.), Theories of group behavior: 185-208. New York: Springer-verlag.

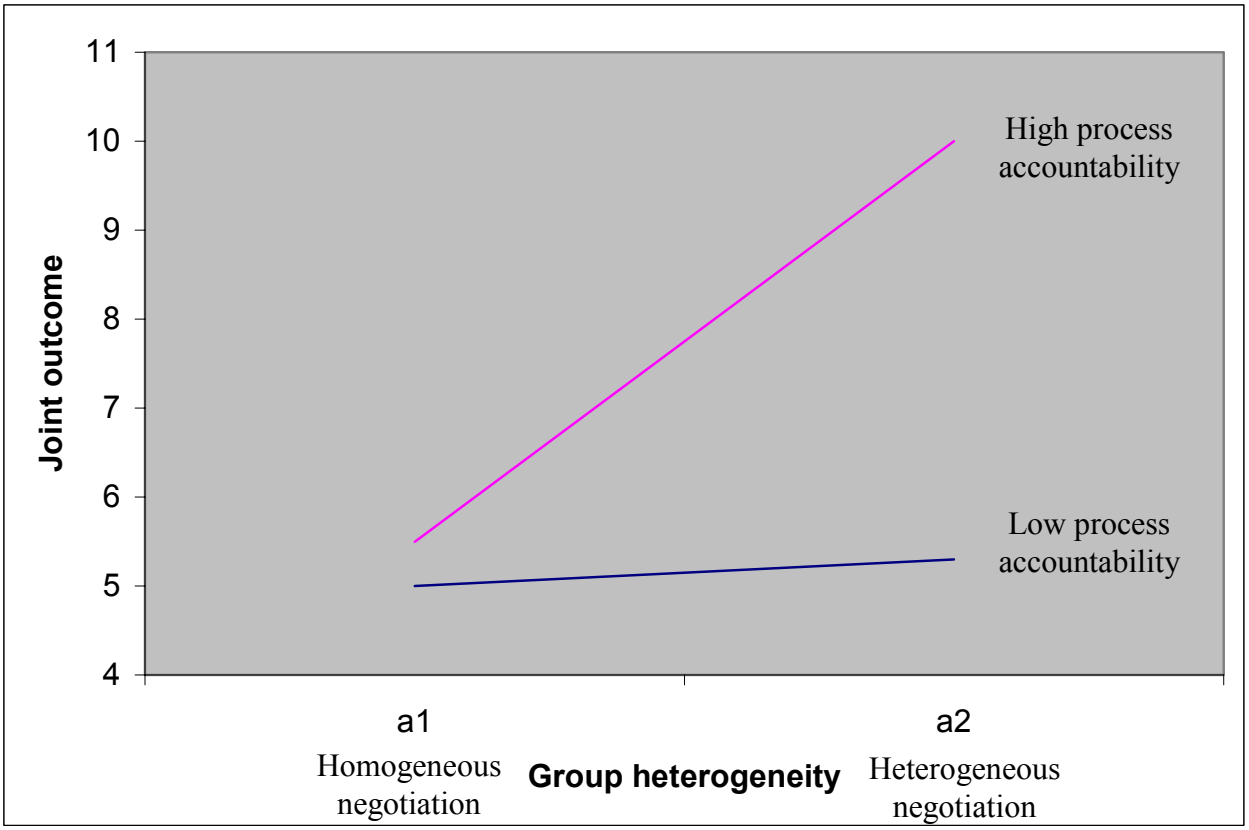
Wyer, R. S. Jr, & Srull, T. K. (1989). Memory and cognition in its social context. Hillsdale, NJ, US: Lawrence Erlbaum Associates, Inc.

Table 1. Experimental design

	High process accountability		Low process accountability	
	Creativity-negotiation	Negotiation-creativity	Creativity-negotiation	Negotiation-creativity
Heterogeneous/ heterogeneous	A	B	C	D
Heterogeneous/ homogeneous	E	F	G	H
Homogeneous/ homogeneous	I	J	K	L

Note. A-L in table represent means in each condition.

Figure 1. An example of the interaction plot



Appendix 1. Negotiation task

Interest	Stereo	Warrantee	Delivery
Buyer team's profit schedule			
10% (0)	Type A (-2400)	6 months (0)	5 weeks (0)
8% (400)	Type B (-1800)	12 months (1000)	4 weeks (600)
6% (800)	Type C (-1200)	18 months (2000)	3 weeks (1200)
4% (1200)	Type D (-600)	24 months (3000)	2 weeks (1800)
2% (1600)	Type E (0)	30 months (4000)	1 week (2400)
Seller team's profit schedule			
10% (4000)	Type A (0)	6 months (1600)	5 weeks (2400)
8% (3000)	Type B (-600)	12 months (1200)	4 weeks (1800)
6% (2000)	Type C (-1200)	18 months (800)	3 weeks (1200)
4% (1000)	Type D (-1800)	24 months (400)	2 weeks (600)
2% (0)	Type E (-2400)	30 months (0)	1 week (0)

Note. Buyer and seller saw only their own profit schedules and we not permitted to exchange them. Numbers in parentheses are the point values of a given option for the particular participant.