Negotiations in small groups:
Effects of goal orientation on outcome

Dissertation Abstract

Bergen, may 2001

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INTRODUCTION

Modern organizations increasingly rely on heterogeneous groups to negotiate important decisions. Inside organizations, traditional hierarchical arrangements are replaced by lateral structures such as task forces and project teams (Ford & Randolph, 1992). Between organizations, arm-length competitive relationships are increasingly transformed into long term partnering arrangements that are managed through integrated teams (Rognes, 1995). When organizations channel decisions into heterogeneous teams, they create mixed motive situations that group members are inclined to approach with different goal orientations (Brett, 1991). Some members may adopt an individualistic orientation, while other members may have a more cooperative orientation. This mixture of orientations is most likely critical for the groups' ability to reach high quality agreements (Pruitt & Carnevale, 1993).

However, despite its practical importance, our knowledge about goal orientations in negotiations is limited in several ways. First, previous research has primarily examined dyadic negotiations (two parties) rather than group negotiations (three or more parties). Second, research has examined situations where all members have had the same orientation, and not included mixed orientation compositions (e.g., individualists meeting cooperators). Third, focus has been on objective effectiveness criteria at the group level (i.e., joint gain), while subjective and individual level criteria largely have been ignored. Finally, some studies have methodological features that make the results questionable as how they relate to goal orientations (e.g., confounding effects, manipulation checks).

Given its practical relevance and lack of scholarly work, the purpose of this dissertation was to address the identified gaps in the literature, and examine how the mixture of goal orientations in negotiating groups impacts several effectiveness

criteria. I investigated this question through three separate studies that built on each other. Study 1 examined goal orientation effects in triads. In order to further understand the results in the first study, study 2 examined goal orientation effects in dyads. Finally, based on the results in the first two studies, study 3 examined goal orientation effects in triads where members had information about each other's orientation. Next, I introduce the theoretical and methodological framework, display the main results, and briefly discuss some of the findings.

THEORETHICAL FRAMEWORK

A negotiator's goal orientation is defined in terms of preferences towards own and other's outcomes. I studied two orientations that seems widespread in negotiation situations; individualistic (goal of maximizing own outcome) and cooperative (goal of maximizing joint outcome as well as own). A specific orientation may have its origin in individual dispositions (trait) and/or situational characteristics (state). I focused on outcome preferences induced by instructions (Deutsch, 1973), as this may be particularly interesting from a managerial point of view.

In negotiation theory, aspiration-level models (e.g., Siegel & Fouraker, 1960), cooperation-competition models (e.g., Deutsch, 1973), and dual concern models (e.g., Pruitt & Rubin, 1986) may help explain how orientation impacts negotiation behavior and outcome. However, aspiration-level models leave out the cooperative orientation, and cooperation-competition models treat orientation as one-dimensional. Dual concern models overcome these limitations, but do not accurately predict the negotiation process between parties with different orientations. Thus, I also examined additional lines of literature. The experimental gaming literature yielded insight into models such as behavioral assimilation (e.g., Kelley & Stahelski, 1970a; 1970b),

while group composition literature proved useful in order to understand heterogeneity (e.g., Jackson, 1992) and social influence (e.g., Peterson & Nemeth, 1996).

I found three types of empirical negotiation studies especially relevant for my research question; (1) studies that manipulate orientation through direct instructions (e.g., Weingart, Bennett & Brett, 1993; Pruitt & Lewis, 1975; Lewis & Fry, 1977; Schultz & Pruitt, 1978; Carnevale & Lawler, 1986; O'Connor, 1997), (2) studies that manipulate variables presumed to affect orientation (e.g., Ben-Yoav & Pruitt, 1984a; 1984b; Carnevale & Isen, 1986; Weingart, Hyder & Prietula, 1986; De Dreu, Giebels & Van de Vliert, 1998), and (3) studies that measure orientation as an individual disposition (e.g., De Dreu & Van Lange, 1995; Olekalns, Smith & Kibby, 1996; Shapiro & Rognes, 1996). The general finding from these studies are that cooperative compositions reach higher joint outcome than individualistic compositions.

However, previous research have largely ignored negotiating triads, mixed orientation compositions, and subjective and individual level effectiveness criteria. Furthermore, some earlier studies have methodological features that are noteworthy. For example, some studies uses instructions that are more like a behavioral instruction than a goal orientation, or they do not separate between manipulation of orientation and information about the other party's orientation (Kimmel, Pruitt, Magenau, Konar-Goldband & Carnevale, 1980). Moreover, some studies do not have a manipulation check, or the manipulation check do not refer precisely to goal orientation. It is therefore unclear if these studies really examines orientation.

In summary, the discussion above underscore the need for further research on goal orientation in negotiation. Based on negotiation research and relevant additional literature, I developed several studies intended to advance our knowledge in this field.

METHODOLOGICAL FRAMEWORK

Design and Tasks

I used an experimental research design because the research question was causal, because the purpose was to test theory, and because this design contributed to cumulative research. The experimental design allowed me to compare between different group compositions (all members cooperative, all members individualistic, and mixed), and between negotiators with different orientations (cooperative and individualistic). The experimental task in study 1 and 3 consisted of a three-person negotiation exercise developed for these studies. The participants negotiated about a business partnership, and the task consisted of five issues, each with four or five alternatives. The experimental task in study 2 was a dyadic negotiation simulation based on negotiation tasks used in previous research (Pruitt & Lewis, 1975). Both tasks allowed for joint gain through logrolling.

Subjects and Procedures

A total of 618 undergraduate business students participated in the three studies (231, 156, and 231, respectively). Their mean age was 22 years, and about 30 % were females. I conducted the experiments during class meetings in courses in organizational behavior. The participants were randomly assigned goal orientation and roles. When finishing the preparation, after about 15 minutes, the groups had a total time of 45 minutes to negotiate (30 minutes for the dyads in study 2). Immediately following the negotiations, the participants answered a post-negotiation questionnaire containing background information, manipulation checks, and questions about individual behavior and group process. Finally, I debriefed the subjects.

Manipulations and Measures

I manipulated the subjects goal orientation (individualistic or cooperative) through written instructions (Weingart et al., 1993; Pruitt & Lewis, 1975). In the individualistic condition, the subjects read that their primary goal was to maximize own outcome. In the cooperative condition the participants read that their primary goal was to maximize own and the total outcome for the group. In study 3, the instruction about own goal orientation was followed by information about which goal orientation the subject could expect from each of the other group members.

I measured four dependent variables; individual result, group result, satisfaction and perceived fairness. Individual result was measured as the total point/profit achieved by the negotiator across the issues. Group result was measured as Pareto efficiency. I developed an index based on Tripp & Sondak (1992) where I measured the number of possible agreements that were Pareto superior to the solution chosen by each group. The variable was transformed (due to skewness), standardized and reversed. Satisfaction and perceived fairness were measured with questions related to process and result. In addition to the four dependent variables, I also collected process data through the questionnaire and tape recorders.

Data validation and Analyses

I checked the manipulation instruction by asking the subjects in the post negotiation questionnaire to indicate their primary objective in the negotiation (Weingart et al., 1993). Chi-square analysis showed that the manipulation had been successful. However, some participants did not perceive their goal orientation as intended, and in order to enhance the precision, I included in my primary analyses

only those compositions where all negotiators showed correspondence between the instruction and the check.

I also checked the dependent variables to secure valid analyses. High negative intraclass correlations (Kenny & LaVoie, 1985) showed that individual results were not independent of each other within groups. I thus used difference analysis with one-sample t-tests when members within groups were compared. Intraclass correlations for perceived fairness were positive and high, and made individual level analyses questionable (Hoyle & Crawford, 1994). Fairness was therefore validated at the group level by demonstrating within-group interrater agreement (James, Demaree & Wolf, 1984; 1993).

MAIN RESULTS

Study 1

This study examined the relationship between the mixture of goal orientation and effectiveness in triads. At the group level, I found that group composition did not affect group result ($F = .35$, $p = .79$), but did affect perceived fairness ($F = 4.25$, $p < .01$). Groups with only cooperative members perceived significant higher fairness than each of the other compositions. At the individual level, there were no significant differences in satisfaction. However, individualistic members achieved higher individual results than their cooperative opponents did ($t = 2.68$, $p < .05$), both when they were in majority and minority in the triad. Individual results in all experimental conditions are shown in figure 1. Individual results are consistently reduced when the number of individualistic opponents increases, but this pattern is not statistically significant.

---------- Figure 1 about here ----------

Study 2

The second study examined the relationship between the mixture of goal orientation and effectiveness in dyads. I found that composition had an impact on both group result ($F = 5.46$, $p < .01$), and perceived fairness ($F = 2.61$, $p < .10$). Two individualists negotiating with each other reached both significant lower group results and lower perceived fairness than cooperative and mixed compositions. Turning to the individual level, goal orientation had no effect on satisfaction. However, goal orientation affected individual results. Individualists again outperformed their cooperative opponents ($F = 4.23$, $p < .05$), and individual results in the four experimental conditions are illustrated in figure 2. The pattern is consistent with study 1; negotiators reach higher individual results when they negotiate against a cooperative opponent than against an individualistic opponent (individualists; $F = 2.36$, $p < .01$, cooperators; $F = 2.36$, $p = .13$).

---------- Figure 2 about here ----------

Study 3

The third study examined the relationship between the mixture of goal orientation and effectiveness in triads, when group members had information about each other's orientation. Group composition impacted group result ($F = 5.70$, $p < .01$). Groups with only individualistic members did significant better than each of the other group compositions. I found no significant differences in perceived fairness across compositions ($F = 1.59$, $p = 0.20$). At the individual level, cooperators were more satisfied when they negotiated with other cooperators rather than with individualists ($F = 3.93$, $p < .05$). When individualists where in majority in the triad, they reached

higher individual results than their cooperative opponent ($t = 2.24$, $p < .05$). Individual results are displayed in figure 3. Cooperative members have a marginally significant drop in individual results when the number of individualistic opponents increases ($F = 2.45$, $p < .10$).

---------- Figure 3 about here ----------

Group process data from the questionnaires yielded interesting patterns. Looking at integrative elements (information exchange, trust), individualistic groups were less integrative than other groups in the start phase ($F = 4.42$, $p < .05$), but more integrative than others in the final phase ($F = 5.28$, $p < .05$). The individualistic groups had an escalating integrative dynamic ($F = 8.30$, $p < .001$) which come clear in figure 4. Looking at distributive elements (conflict, argumentation), I found that individualistic groups were slightly more distributive than other groups in the start phase ($F = 2.67$, $p = .11$), and less distributive in the last phase ($F = 4.81$, $p < .05$). The findings are displayed in figure 5. Furthermore, regression analyses showed that the process in the final phase was most important for group result (integrative positive, distributive negative).

---------- Figure 4 and 5 about here ----------

BRIEF DISCUSSION

The main contributions of this dissertation are precise examinations of how mixture of goal orientations impacts several effectiveness criteria in negotiating groups. Below, I focus on some questions that may be examined in future research in order to understand the relationship between goal orientation and the creation of value.

Both cooperative compositions and mix oriented compositions reached medium Pareto efficiency in all three studies. This indicate that the number of cooperative negotiators are insignificant for joint gain, as long as at least one of the negotiators have this orientation. The results in the individualistic compositions varied across conditions. In dyads, individualistic compositions reached very low joint gain. In groups, individualistic compositions reached medium joint gain, while in groups where the members knew each other's orientation, individualistic groups achieved nearly Pareto optimal agreements.

A first interesting question is why an individualistic composition was found to be, relative to other compositions, better in groups than in dyads. One speculation can be that in groups, there is always a person that can take the role as a mediator when conflicts between two group members threatens to escalate (Shapiro & Rognes, 1996). This is not the case in dyads, and consequently, conflicts may escalate. Future research should also consider other possible explanations, such as different norms in dyads and groups, and if people with the same orientation chose different behavior in dyads and groups.

A second timely question is why cooperative compositions didn't do better. One possible explanation may be that the parties are so focused on cooperation that they satisfice (Simon, 1957), and thus choose the first acceptable agreement. This may especially be the case when members know each other's cooperative orientation. Creation of values in negotiation may, however, require energetic members that participate in intense search for integrative agreements.

A third question is why the individualistic groups did so well when they knew each other's orientation. I suggest that members of individualistic groups developed an enlightened self-interest (Rubin, 1991). Throughout the negotiation, the members

recognized that none of them would yield easily, and realized that the best way to achieve their individual goals was through an integrative process, and not through pressure tactics. This may have created the integrative escalation and distributive de-escalation found in the process analyses, and driven the groups towards Pareto-optimal agreements.

A fourth moment for future studies is that individualistic compositions seems very context sensitive. While cooperative compositions generally are relatively robust across situations, individualistic compositions are not (e.g., Weingart et al., 1993; Carnevale & Isen, 1986; Lewis & Fry, 1977). Hence, cooperative compositions are safe, as they usually reach respectable joint outcomes. Individualistic compositions are more risky, though, as they often reach poor joint outcomes. However, as shown in this dissertation, individualistic compositions may under some conditions (here: group and knowledge of other's orientation) reach especially high quality agreements. In fact, individualistic compositions seem to have a greater potential than other compositions. Future research should examine under which conditions this potential is released.

In conclusion, the common understanding of individualistic orientations as detrimental for group outcome has to be reconsidered.

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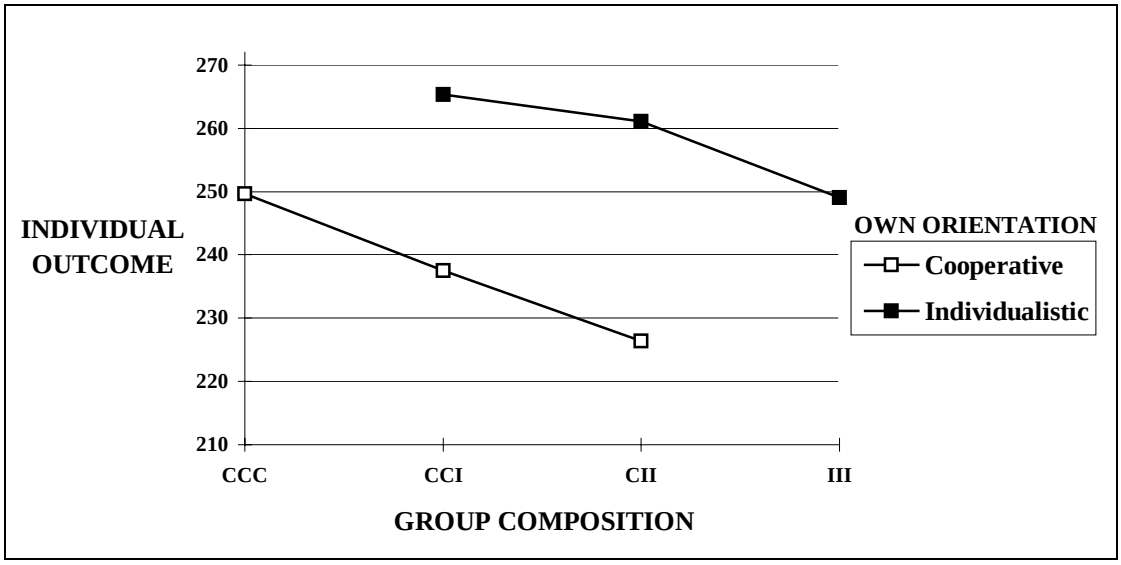
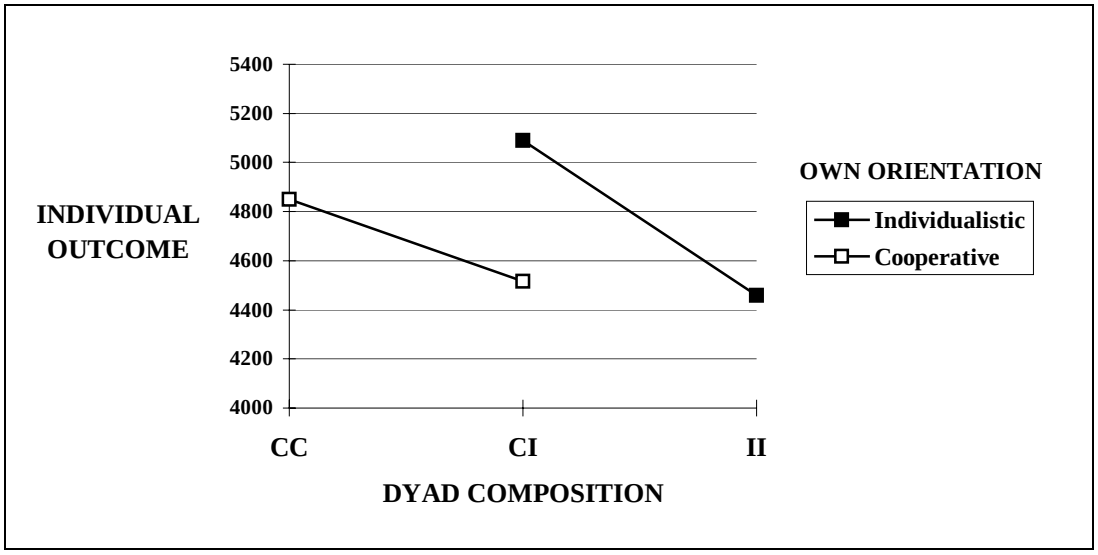
FIGURES

Figure 1: Individual result as a function of own orientation and group composition in study 1



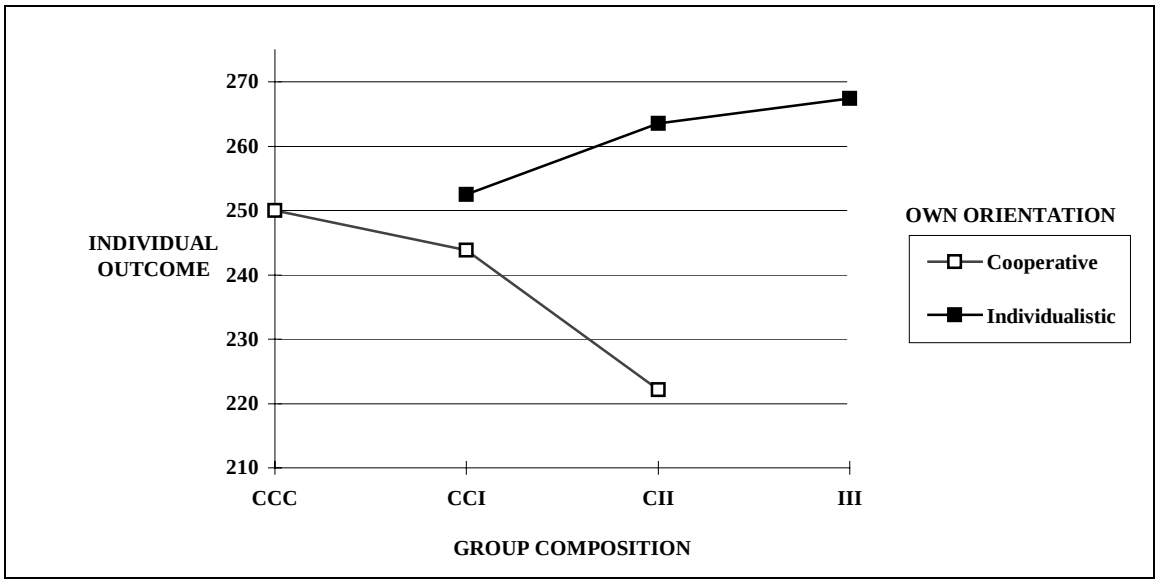
CCC = three cooperative members, CCI = two cooperative members and one individualistic member, CII = one cooperative member and two individualistic members, and III = three individualistic members.

Figure 2: Individual result as a function of own orientation and dyad composition in study 2



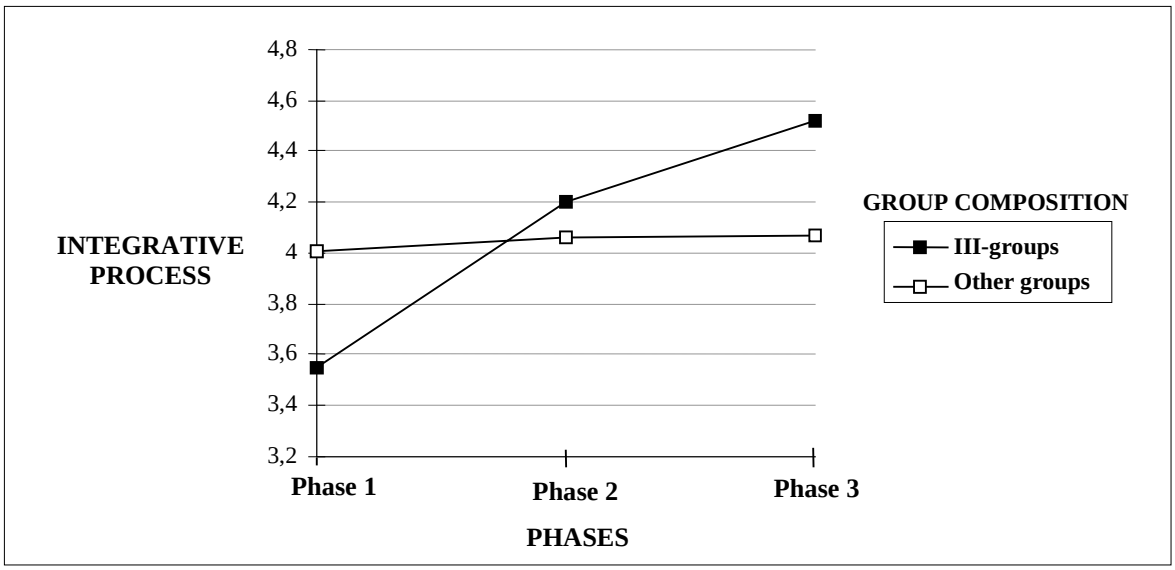
CC = two cooperative members, CI = one cooperative member and one individualistic member, and II = two individualistic members.

Figure 3: Individual result as a function of own orientation and group composition in study 3



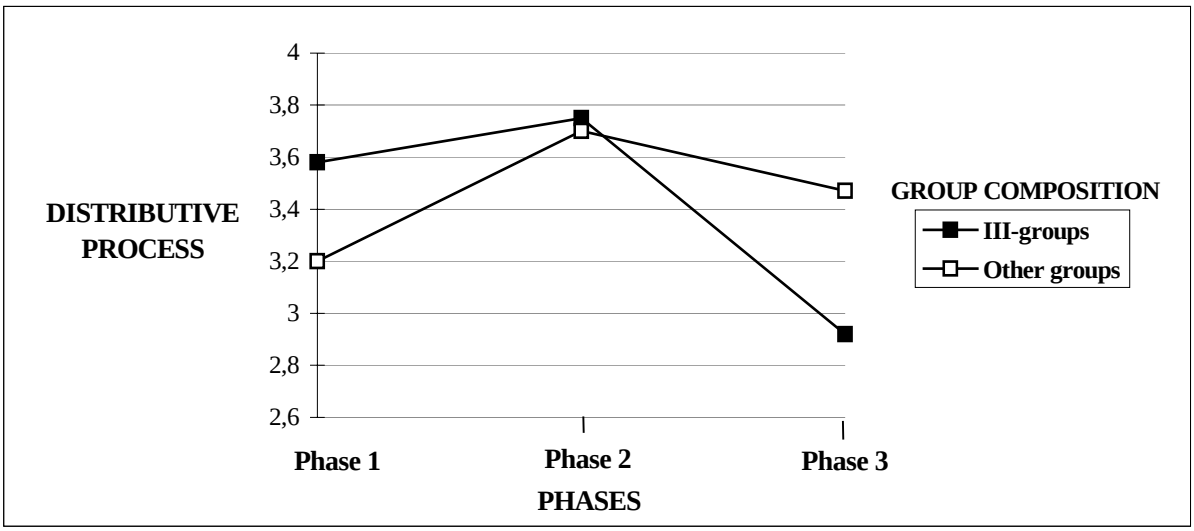
CCC = three cooperative members, CCI = two cooperative members and one individualistic member, CII = one cooperative member and two individualistic members, and III = three individualistic members.

Figure 4: Effect of group composition on integrative process in study 3



III-groups = groups with three individualistic members. Other groups = groups with one or more cooperative oriented members (CCC-, CCI- and CII-groups).

Figure 5: Effect of group composition on distributive process in study 3



III-groups = groups with three individualistic members. Other groups = groups with one or more cooperative oriented members (CCC-, CCI- and CII-groups).