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**THE INVISIBLE HAND IN NEGOTIATION:
ARE INDIVIDUALISTIC ORIENTATIONS
COLLECTIVELY VALUABLE?**

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Abstract

This study examines how group members' individualistic or cooperative motivational orientations impact the process and outcomes in negotiating groups. A total of 228 students participated in a three-person negotiation simulation where orientation was induced through written instructions and members were aware of each other's orientations. Results showed that groups with only cooperative members were more satisfied with the negotiation than members of the other group compositions. Conversely, groups with only individualistic members reached higher joint outcome than groups with only cooperative members and groups with a mix in orientations. Process-analyses indicated that the individualistic groups increased their integrative activities and decreased their distributive activities towards the end of the negotiation. The results challenge the dominating view that individualistic orientations are detrimental for constructive group-process and high joint outcome.

Groups frequently have to negotiate their decisions because members have conflictive interests and opinions. According to the negotiation literature (e.g., De Dreu, Weingart, & Kwon, 2000), the agreements that best reconcile the parties' interests and provide high joint benefit are reached when negotiators share a cooperative motivational orientation (i.e., they want to maximize both their individual outcome and the joint outcome of the group). This knowledge is, however, largely derived from research on dyadic negotiations, and although negotiations in dyads and groups share many characteristics, they also differ in important ways (Bazerman, Mannix, & Thompson, 1988). For example, when moving from only two, to three or more negotiators, challenges attached to complexity in information, relations, procedures and strategies, increase (Kramer, 1991).

Unfortunately, research on motivational orientation in negotiating groups is limited. More important, the few studies done largely ignore that members of the same group often have different motivational orientations, i.e., that some group members may be individualistic and some may be cooperative. Such mix in orientations is quite likely as groups become increasingly heterogeneous (Brett, 2001). Furthermore, previous research has not acknowledged that in many groups negotiating members have information about each other's motivational orientations. Members of management teams or cross-functional teams inside organizations, and members of business teams between organizations (e.g., joint ventures) will, for example, typically have information about each others' orientations from previous encounters.

Consequently, the purpose of the present study is to examine how group members' cooperative and individualistic orientations affect the process and the outcome of the negotiation when members are aware of each other's orientations. We choose to focus on an individualistic and a cooperative motivational orientation because they seem

to be the most common orientations in negotiations (Pruitt & Carnevale, 1993), and are found to have substantial impact in dyadic negotiations (De Dreu et al., 2000).

Furthermore, we choose to focus on motivational orientation stemming from situational characteristics (state) rather than orientations stemming from individual dispositions (trait), because situational characteristics are easier to affect from a managerial point of view, and more strongly relate to organizational reality (e.g., climate factors, incentive systems). Below, we develop alternative hypotheses about the relationship between group members' motivational orientation and the negotiation-process and outcome – including both objective (joint outcome) and subjective (satisfaction) outcome-measures. We included both objective and subjective outcome-measures to support research indicating that negotiators not only consider their material gains and losses (Curhan, Elfenbein, & Xu, 2006), and because oftentimes a disconnect is seen between the quality of negotiated agreement, and the outcome-satisfaction parties derive from that agreement (Galinsky, Mussweiler, & Medvec, 2002).

Hypotheses Development

The effects of motivational orientation on negotiation process and outcomes can be predicted by the Dual Concern Theory. The Dual Concern Theory suggest that a negotiator's behavior is determined by two motives; the negotiator's concern for own outcome and the negotiator's concern for the others' outcome. High concern on both dimensions (i.e., similar to a "cooperative" orientation) predicts problem-solving behavior, while high self-concern and low other-concern (i.e., similar to an "individualistic" orientation) predicts contending behavior. Studies related to the Dual Concern Theory have usually supported the model's predictions. In a meta-analytic review, De Dreu et al. (2000) found that cooperative dyads in general reached higher joint outcome than individualistic dyads. The cooperative dyads reached their higher

joint outcome by having more integrative processes (i.e., group members communicating their interests, listening to each others, and trusting the information exchange), and less distributive processes (i.e., group members focusing on conflictive issues, being argumentative, and demanding concessions) than the individualistic dyads.

The review by De Dreu et al. (2000) almost exclusively focused on interpersonal negotiation, and did not include larger-sized interactions. However, moving to negotiating groups (three or more parties) create extra challenges. For example, in dyadic negotiations, a person can focus on the behavior of the other party, and concentrate energy on influencing the target person. In groups, it is also necessary to consider the effects of one's own behavior on group members other than the target person (Kramer, 1991), and also often relate to different strategies from different group members (Brett, 1991). Furthermore, in groups there is a potential for coalition formation not found in dyads (Mannix, 1994; Ten Velden, Beersma, & De Dreu, in press).

Although these differences may suggest that findings from dyadic research do not comfortably generalize to group interaction and negotiation, several studies of group negotiations indicate that having cooperative rather than individualistic group members facilitate integrative processes, impede distributive processes, and enhance group climate and joint outcome (Beersma & De Dreu, 2002; Beersma & De Dreu, 2005; Weingart, Bennett, & Brett, 1993). Furthermore, Weingart, Brett, and Olekalns (2002) found that the more cooperative compared to individualistic members a group had, the more integrative the negotiation process was (no effects on joint outcome were observed).

In the context of the present study; where group members are familiar with each others' motivational orientation, one may expect similar results. In the cooperative groups, for instance, knowing that one's co-members share one's cooperative orientation

makes it easier to reveal one's true preferences and opinions, and easier to trust the information given by the other members. Higher information exchange combined with high levels of trust are known to lead to more integrative agreements, yielding high joint gain and high satisfaction. Conversely, in groups having individualistic members, knowing that there are members that only care for their own individual outcome may result in power-games where members demand concessions from each others – thereby stimulating distributive processes resulting in dissatisfied members and low joint outcomes. Hence, we suggest:

Hypothesis 1: Joint outcome will be higher the more cooperative members there are in the group.

Hypothesis 2: Group members' satisfaction will be higher the more cooperative members there are in the group.

Hypothesis 3: The negotiation process will be more integrative and less distributive the more cooperative members there are in the group.

Whereas the above follows from previous work in a rather straightforward manner, a careful analysis may lead to a set of competing hypotheses. For example, Weingart et al. (1993) found cooperative groups to do better than individualistic groups only when the groups were instructed to consider issues sequentially. When groups considered issues simultaneously (as they are allowed in our study), individualistic groups did as well as cooperative groups. Similarly, Beersma and De Dreu (2002) found cooperative groups to outperform individualistic groups only when the structure of the negotiation was asymmetrical (i.e., two parties had compatible preferences while the remaining party had opposite preferences). When the structure was symmetrical (as it is in our study) cooperative groups did not get significantly higher outcome than individualistic groups. Moreover, some studies comparing cooperative and

individualistic groups report on no differences in group outcome (Schei & Rognes, 2005; Weingart et al., 2002), and there is also some indication that an individualistic orientation can enhance group outcome. For instance, Shapiro and Rognes (1996) measured team-members conflict orientation and found that a strong preference for a “dominating” style (i.e., similar to an individualistic orientation) in fact increased group outcome.

How can these inconsistent findings be explained? There are several aspects that may impede or reverse the positive effect of a cooperative orientation relative to an individualistic orientation. First, sometimes groups with only cooperative members may focus heavily on cooperation and *satisfice* – i.e., choosing the first acceptable solution rather than searching for an optimal agreement (Simon, 1957). Identifying optimal agreements in group negotiations typically requires hard work (Kramer, 1991). Furthermore, one-sided focus on cooperation may result in members giving up their individual interests, believing that this will help the group. To develop high quality decisions, however, negotiators have to hold on to individual interests, and not yield uncritically (Pruitt, 1983). Importantly, when group members have information about each others’ cooperative orientation, tendencies towards satisficing may be even higher than when no such information is present. Cooperative members knowing that their teammates share their cooperative orientation may easily *satisfice* – believing that the shared cooperative orientations themselves will secure a high quality agreement. Indeed, yielding behavior is found to be detrimental for cooperators. For example, the meta-analytical review by De Dreu et al. (2000) showed – consistent with the predictions from Dual Concern Theory – that cooperative negotiators only reached mutually-beneficial outcomes when they had high resistance to yielding. Cooperative dyads with low resistance to yielding were found to be less problem-solving, more contentious and

reached lower joint outcomes than cooperative dyads with high (or no specified) resistance to yielding.

Second, while the cooperative groups may be hampered by phenomena such as satisficing, the individualistic groups may improve their performance through *enlightened self-interest* (Rubin, 1991). Typically, individualistic groups are expected to have distributive processes where members actively use arguments to persuade the others to make concessions. However, knowing that the other members share an individualistic orientation may tell the negotiator that the possibility to exploit the other parties is limited. If all the members recognize that pressure-tactics will be of no use because co-members are unwilling to make concessions, their only way to get a high individual outcome will be to engage in integrative behavior in order to enlarge the total pie. The parties want to maximize their individual outcome (self-interest), but realize that the best way to do this is by also paying attention to the others interests (enlightened). An escalative integrative process, coupled with the participant's energetic search for a high individual outcome, may create a dynamic that drive the individualistic groups towards optimal solutions. This reasoning is consistent with Harinck and De Dreu (2004) who found temporary impasses to help negotiators to get an integrative process late in the negotiation. Thus, negotiators that experience trouble in the first part of a negotiation may come to a point where they realize that changing behavior is needed to accomplish their goals. Individualistic groups knowing that their team-mates share an individualistic orientation may try to use distributive behavior early in the negotiation in order to test the other's willingness to concede, but then progressively shift to a more integrative process when they recognize that their pressure tactics don't work.

Finally, in groups with mix in orientation we believe that integrative processes will be difficult to achieve when members are aware of the difference in members'

motivational orientation. The individualistic members are likely to try to take advantage of those members they know are cooperatively oriented, and accordingly; cooperative members will have to safeguard against such exploitation. These groups are therefore likely to get low joint outcomes and be dissatisfied, because they lack the integrative process usually associated with high-quality agreements. Supporting this reasoning, Schei and Rognes (2003) found that in mixed dyads (i.e., cooperator versus individualist) where the individualist knew that the opponent was cooperatively motivated, integrative activities, perceived negotiation quality, and joint outcome were low. In sum then, based on the reasoning above, we suggest the following alternative hypotheses:

Hypothesis 4: Joint outcome will be maximized when all group members are individualistic.

Hypothesis 5: Satisfaction will be maximized when all group members are cooperative.

Hypothesis 6: The negotiation process will be more integrative and less distributive towards the end of the negotiation when all group members are individualistic.

Method and Validation

Design and Procedure

We used 228 undergraduate business students (35% female) enrolled in an organizational behavior course as participants in the study. Average age was 21. Participants were randomly assigned a cooperative or an individualistic orientation, and grouped into three-person groups. This gave four different compositions: (1) cooperative groups (n = 20) having three cooperators (CCC), (2) cooperative majority (n = 19) having two cooperators and one individualist (CCI), (3) individualistic majority (n = 19) having one cooperator and two individualists (CII), and (4) individualistic groups (n =

18) containing three individualists (III).

The experiment was conducted during a class meeting in the course. Each negotiator received confidential role instructions, manipulation instructions, and a profit schedule that showed their individual earnings associated with the different possible alternatives. The participants had 15 minutes of preparation, and the groups were allowed to negotiate for 45 minutes. Finally, participants answered the post-negotiation questionnaire containing background information, manipulation checks, and process measures, and were debriefed.

Negotiation Task

We used a negotiation task similar to the one used by Schei and Rognes (2005). Three people negotiated how they would form a business partnership. More specifically, participants negotiated the construction of a joint office complex – representing an airline, insurance, or a consulting company. The payoff matrix is shown in table 1. Five issues had to be negotiated; 1) move-in date, 2) geographical location of the building, 3) architectural design, 4) distribution of maintenance costs, and 5) establishment of joint service functions. The group had to resolve all five issues to reach an agreement. The negotiation simulation was symmetric, giving all the members the same maximum achievable points and equal chances of reaching this sum. The task had both integrative and distributive issues. The three integrative issues (issue 2, 3, and 5) allowed for joint gain through logrolling (cf. Mannix, Thompson, & Bazerman, 1989). The two distributive issues (issue 1 and 4) made the symmetry in the payoff matrix less obvious and raised the potential conflict level in the groups.

Manipulation

We followed previous research on motivational orientation in negotiation and manipulated the two orientations through written instructions. The manipulations were

presented as instructions to negotiators from management (cf. Weingart et al., 1993). 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 group outcome*. The manipulation was followed by information from management regarding which orientation the negotiator could expect from each of the other group members, based on previous negotiations the company had had with the other group members.

We examined the effects of the manipulation instructions by asking the subjects in the post-negotiation questionnaire to indicate their primary objective in the negotiation: (a) maximize own outcome, (b) maximize own and group outcome, or (c) other (cf. Weingart et al., 1993). The instructions had a significant impact on the subjects orientation, $\chi^2(2, N=228) = 151.79, p < .001$. In the cooperative condition, 92% of the subjects answered maximize own and group outcome, and in the individualistic condition 86% of the subjects answered maximize own outcome. Consistent with earlier studies of mix in motivational orientation (e.g., Schei & Rognes, 2003; 2005), we included in our primary analyses only those groups where all group members answered the manipulation check correctly. This procedure ensured that the hypotheses-tests were done only on groups where members understood and adopted their assigned motivational orientation (n = 16, 17, 15, 12 in the CCC-, CCI-, CII-, and III-groups, respectively). Importantly, exploratory analyses including all groups provided similar results as in the primary analyses, and did not change any conclusions.

Measures

Joint outcome. We measured joint outcome through (a) joint sum and (b) Pareto efficiency. We chose to include both these measures as they are conceptually different, and as prior research on group negotiation has shown results to differ slightly on these

variables (Weingart et al., 1993). *Joint sum* was measured as the sum of the profit achieved by the three negotiators in a group. Thus, if the negotiators agreed on alternative A on all the five issues (AAAAA), joint sum would be 712.5. The range of joint sum is from 675 (minimum) to 825 (maximum). *Pareto efficiency* relates the agreements to Pareto optimal settlements. We developed an index based on Tripp and Sondak (1992), where we measured the number of possible agreements that were Pareto superior to the solution chosen by each group. Pareto efficiency was positively skewed (1.78), and we did a log transformation to normalize the distribution (skewness after transformation = 0.12). We standardized the variable, and reversed it so that high values indicated high Pareto efficiency.

Satisfaction. We measured satisfaction as the average of three items in the post-negotiation questionnaire: “How satisfied are you with the negotiation outcome?” “How satisfied are you with the negotiation process?” and “To which degree is the group agreement acceptable to you?” To use satisfaction at the group level, we calculated the inter-rater agreement index for multiple items (James, Demaree, & Wolf, 1984; 1993). Average inter-rater agreement was .83, and did not differ significantly across compositions. This is well above the suggested benchmark of .70. (George & Bettenhausen, 1990), and justifies the use of satisfaction as a group variable (George & James, 1993). Finally, inspecting for outliers on the satisfaction scale, the score on one item in one group was removed due to a standardized value above |3|. The reliability coefficient of the satisfaction scale was $\alpha = .74$.

Negotiation Process. We measured the negotiation process with several questions in the post-negotiation questionnaire. The items are shown in Table 2. The participants were asked to indicate the extent of integrative and distributive activities, respectively. Consistent with the procedure in Schei and Rognes (2003), the group

members discussed each of the statement in Table 2 before giving their individual answers. Group members typically gave the same answers, but in the very few cases of disagreement, we used the average score of the group members to compose the measure. The participants first answered questions regarding the overall process, and then for each of three phases. Three phases is often suggested in phase-approaches to negotiations, i.e. initiation, problem-solving, and resolution (Holmes, 1992). The participants were told that phase 1 should be seen as about the first 25 percent of the time used, phase 2 as about the next 50 percent, and phase 3 as about the last 25 percent of the time used. A principal component analysis of the total process revealed as expected an integrative factor and a distributive factor (see Table 2). Inspecting for outliers showed that in three cases integrative items had standardized scores above $|3|$ and the score on these items in the respective groups were therefore removed. The reliability coefficients were $\alpha = .66$ for the integrative activities and $\alpha = .61$ for the distributive activities, which we find acceptable given the broad nature of these variables.

Results

Descriptive Statistics and Correlations

Table 3 shows descriptive statistics and correlations for the group-level variables. Group composition as measured by number of individualistic members is positively correlated with joint outcome and Pareto efficiency, and negatively correlated with satisfaction. The overall degrees of integrative and distributive activities are only moderately correlated with group composition (number of individualistic members) and group outcome variables (joint sum, Pareto efficiency, and satisfaction).

Group Outcome

We first examined the effects of group composition on joint outcome (joint sum and Pareto efficiency). Table 4 show means, standard deviations, and results from an

Analysis of Variance (ANOVA) and pair-wise comparisons. As can be seen in Table 4, group composition had a significant impact on both indicators of joint outcome: Joint sum; $F(3, 56) = 7.51, p < .001, \eta^2 = .29$, and Pareto efficiency; $F(3, 56) = 5.70, p < .01, \eta^2 = .23$. Individualistic groups reached higher joint sum and higher Pareto efficiency ($M = 802$ and 0.92 , respectively) than cooperative groups ($M = 750$ and -0.21), cooperative majority groups ($M = 740$ and -0.43), and individualistic majority groups ($M = 749$ and -0.08). Pair-wise comparisons showed that joint sum and Pareto efficiency were significantly better in the individualistic groups than in any of the other three compositions ($p < .01$), whereas no significant differences emerged among these other compositions. These results counter Hypothesis 1 that number of cooperative members in the group is positive for joint outcome. The results do, however, support the alternative Hypothesis 4 that joint outcome will be higher when all group members are individualistic.

Second, we examined the effects of group composition on satisfaction. As shown in Table 4, group composition had a significant impact on satisfaction, $F(3, 56) = 4.98, p < .01, \eta^2 = .21$. Members of cooperative groups were more satisfied ($M = 3.74$) than members of individualistic groups ($M = 3.36$), individualistic majority groups ($M = 3.44$) and cooperative majority groups ($M = 3.36$). Pair-wise comparisons showed that satisfaction in cooperative groups was significantly better than in each of the other group compositions ($p < .01$). No other comparisons differed significantly. The results do not fully support Hypotheses 2 that group members' satisfaction will be higher the more cooperative members there are in the group, but do entirely support the alternative Hypothesis 4 that cooperative satisfaction will be higher when *all* group members are cooperative.

Negotiation Process

We first examined how group composition affected integrative activities (i.e., information exchange, trust). We did a 4 (compositions) X 3 (phases) analysis of variance with phases as repeated measures. The cell means for integrative activities are shown in the left half of Table 5. Group composition (between-subjects) did not affect the overall integrative activities, $F(3, 56) = 0.22, ns$. Phase (within-subjects) had a significant linear impact on integrative activities, $F(1, 56) = 10.33, p < .01, \eta^2 = .16$. As can be seen in Table 5, integrative activities increased over time. The interaction between composition and phase was also significant, $F(3, 56) = 6.68, p < .001, \eta^2 = .26$. Inspection of the means show that the individualistic groups had a strong increase in integrative activities during the negotiation, being the group composition with the least integrative activity in phase 1 and the most integrative activity in phase 3. Simple effects analyses showed that the individualistic groups were the only ones that increased their integrative activities significantly throughout the three negotiation phases, $F(1, 11) = 16.24, p < .01, \eta^2 = 0.60$, being more integrative in phase 2 than in phase 1 ($p < .01$), and being more integrative in phase 3 than in phase 2 ($p = .05$). Comparing integrative activities across group compositions in each of the three phases separately showed a marginal significant difference in phase 3, $F(3, 56) = 2.47, p = .07$, where the individualistic groups had significantly more integrative activities than both the mixed orientation groups ($p < .05$), but not significantly more than the cooperative groups ($p = .24$).

Next, we examined how group composition affected distributive activities (i.e., conflict, argumentation). Again, we did a 4 (compositions) X 3 (phases) analysis of variance with phases as repeated measures. The cell means for distributive activities are shown in the right half of Table 5. Group composition (between-subjects) did not impact the overall distributive activities, $F(3, 56) = 0.37, ns$. Phase (within-subjects) did not

have a linear impact on integrative activities, $F(1, 56) = 0.14$, *ns*, but had a strong quadratic effect, $F(1, 56) = 21.35$, $p < .001$, $\eta^2 = .28$. The means in Table 5 show a reversed U-shaped pattern where distributive activities increase from phase 1 to phase 2, and then decrease in phase 3. The interaction between composition and phase was significant, $F(3, 56) = 4.65$, $p < .01$, $\eta^2 = .15$. Individualistic groups were the only ones with a drop in distributive activities from the first to the final phase. While starting out as the most distributive of the group compositions, the individualistic groups finished as the group having the lowest amount of distributive activities. Simple effects analyses showed that the individualistic and the mixed groups had a quadratic effect ($F > 5$, $p < .05$). Individualistic groups and individualistic majority groups had a significant decrease in distributive activities from phase 2 to phase 3 ($p < .05$), while the two mixed groups also had a significant increase in distributive activities from phase 1 to phase 2. Comparing across composition in each of the phases revealed no significant results – phase 3 being nearest ($F(3, 56) = 1.82$, $p = .16$), where individualistic groups were lower in distributive activities than the mixed groups ($p < .05$).

The results for integrative and distributive activities do not support Hypothesis 3 that stated that the negotiation process would be more integrative and less distributive the more cooperative members there were in the group. Rather, the pattern of results supports our Hypothesis 6 that the negotiation process would be more integrative and less distributive towards the end of the negotiation, when all group members were individualistic.

Additional Analyses

In addition to test the hypotheses, we also examined the relationship between the negotiation process and joint sum. Regression analyses for negotiation process (integrative and distributive activities) on joint sum are shown in Table 6. We ran three

separate regressions, one for each of the three phases. The negotiation process in the two first phases did not affect joint sum (phase 1; $R^2 = .02$, *ns*, phase 2; $R^2 = .03$, *ns*).

However, the negotiation process in phase 3 had a significant impact on outcome ($R^2 = .27$, $p < .001$). Integrative activities in the final phase had a significant positive effect on joint sum ($\beta = .36$, $p < .01$), while distributive activities had a significant negative effect ($\beta = -.35$, $p < .01$).

Finally, we did hierarchical analyses to test for mediation following the recommendations outlined by Kenny, Kashy, and Bolger (1998). Group composition and negotiation process were regressed on joint sum – entering composition in Step 1, and phase 3- integrative and distributive activities in Step 2. The results are shown in Table 7. Entering the process variables (integrative and distributive) into the model increased ΔR^2 significantly from .15 to .37, $F(2, 56) = 9.62$, $p < .001$. Integrative activities had a positive ($\beta = .34$, $p < .01$), and distributive activities had a negative ($\beta = -.31$, $p < .01$) effect on joint sum. However, because the significant effect of group composition in Step 1 ($\beta = .38$, $p < .01$) did not disappear when the process variables were entered in Step 2 ($\beta = .31$, $p < .01$), no evidence for full mediation was obtained. Composition and process variables co-determine joint sum.

Discussion

The use of cross-functional teams and heterogeneous project groups are pervasive both inside and between organizations. When members of such on-going groups negotiate their decisions they are often aware of how their team-mates are likely to approach the task (e.g., having individualistic or cooperative goals). The present study contributes to the negotiation literature by being the first to examine how the mixture of motivational orientations in a group impacts negotiation- process and outcome when members are aware of each other's orientations. We found groups consisting of only

cooperative members (i.e., members trying to maximize group outcome as well as their own individual outcome) to be more satisfied with the negotiation than members of the other group compositions. In contrast, we found that groups consisting of only individualistic members (i.e., members trying to maximize their own individual outcome only) achieved higher joint outcome than all the other group compositions (i.e., cooperative groups and groups with mix in orientations). Interestingly, the negotiation process in the individualistic groups changed from being primarily distributive in the beginning to be primarily integrative towards the end of the negotiation. We discuss these results and their implications next.

Implications

First, the *cooperative groups* reached low joint outcome, but were highly satisfied with the negotiation. The low joint outcome may seem strange; after all, members of these groups were motivated to maximize group outcome, and, in addition, knew that they shared this goal with the other group-members. We could expect then that these members easily would reach optimal agreements by exchanging information in a trusting climate. However, this is not what happened. Rather, the cooperative groups seemed to engage in satisficing – choosing the first acceptable agreement sooner than looking for optimal agreements. The process analyses indicate that the cooperative groups never became very integrative or very distributive, and cooperative groups might have lacked the energy that is needed to develop integrative agreements (i.e., high joint outcome).

Further research is needed to explain more precisely what went on in the cooperative groups, especially because our study failed to find a mediating effect of the negotiation process. Importantly, although the low joint outcome in the cooperative groups may seem to contradict the vast negotiation research on motivational orientation,

it is important to recall that a prerequisite for reaching integrative agreements is resistance to yielding (De Dreu et al., 2000). Members of the cooperative groups in the present study may have yielded uncritically just because they knew the other members were cooperatively oriented. Another explanation may be derived from the motivated information-processing perspective (De Dreu & Carnevale, 2003). According to this perspective, joint outcome in cooperative groups will decrease when members have low rather than high epistemic motivation – i.e., when they have a low desire to develop and hold accurate and well-informed conclusions about the world. Being informed about the motivational orientation of the opponents may lower epistemic motivation because the desire to search for information about the opponent is reduced. Future research might more closely examine the relationship between information about the opponent, epistemic motivation, and resistance to yielding.

Second, *individualistic groups* reached very high joint outcome, but were not very satisfied with the negotiation. The individualistic groups experienced escalation in the integrative process, and de-escalation in the distributive process towards the end of the negotiation. This pattern is consistent with the idea that members of individualistic groups developed an enlightened self-interest: Initially they have a fairly distributive stage where firm positions and intentions are established. This is followed by a mid-stage where they still argue and hold on to their positions, but also share information and package issues. In the final stage, distributive activities drop dramatically. Here the integrative activities dominate. Thus, the process develops from being mainly distributive, to being characterized by a mix of distribution and integration, and to being integrative in the resolution stage. The individualists seem to be firm, expecting rightly the others to be the same. Based on initial confirmation of expectations they will also play integratively. Knowing they cannot beat their opponent, they play with them

instead. Consistent with this, the process in the individualistic groups may be explained by the “Perceived Feasibility Perspective” that extends the Dual Concern theory. This perspective predicts that contending (i.e. distributive behavior) will be an individualists’ preferred strategy, “but problem solving is a close second if the contentious approach appears infeasible or costly. Indeed, problem solving often seems the most viable way of pursuing one’s own interests” (Pruitt & Rubin, 1986: 35). We believe that knowing that the other group members’ share one’s individualistic orientation may make pressure-tactics look less effective, but further research is required to determine more closely what kind of processes turned the individualistic groups to be integrative. One explanation might be, for instance, that individualistic groups more often reach temporary impasses, which turn initially distributive processes into integrative processes (Harinck & De Dreu, 2004). Finally, future studies could also examine how individualistic groups can enhance subjective outcome-measures such as satisfaction to better match the very good objective outcome these groups achieved.

Third, the *mixed orientation groups* neither reached high joint outcome, nor were they very satisfied with the negotiation. Mixed groups seem to be unable to develop growing integrative processes, and rather escalate distributive activities leading to inferior joint outcome and low satisfaction. These findings are consistent with Weingart et al., (2002) who found their mixed groups to be rather distributive compared to their cooperative groups. Mixed groups may simply have problems finding a direction. Cooperators may initially try to increase integrative activities in the group, while individualists try to reach their goal by constantly demanding concession from their co-members – who they know is cooperators and therefore likely to concede in the end.

The findings in this study underscore the importance of understanding individualistic compositions. Importantly, individualistic compositions might be more

context-sensitive than other compositions. For example, while cooperative groups are found to get relatively high joint outcomes under both simultaneous and sequential issue considerations, individualistic groups do well when negotiating issues simultaneously – but not when negotiating issues sequentially (Weingart et al., 1993). Similarly, while cooperative groups are found to negotiate well both when the task structure is symmetrical and asymmetrical, individualistic groups do well only when the task structure is symmetrical (Beersma & De Dreu, 2002). Correspondingly, in negotiating dyads, situational factors such as time pressure (Carnevale & Lawler, 1986) and visual access (Lewis & Fry, 1977) are found to affect joint outcome in individualistic dyads but not in cooperative dyads. Taken together, these studies indicate that cooperative compositions are relatively robust across situations. Hence, cooperative compositions may be safe, as they usually reach respectable joint outcomes across situational differences. Individualistic compositions seem more risky, though, as the quality of their agreements is more dependent on the situational characteristics. This reasoning is consistent with Cooperation Theory (Deutsch, 1960), which suggest that, relative to cooperators, individualists are more sensitive to situational factors when acting towards others. While cooperators are likely to cooperate under various conditions, the behavior of the individualist is more unpredictable. However, as shown in this study, individualistic compositions may under some conditions (here: group context and information about others' orientation) reach especially high joint outcomes. Future research should examine under which conditions the potential of individualistic compositions are released.

Finally, our findings also have some potential practical implications. The present study suggests that when joint outcome is important, groups negotiating should be composed of individualistic members who know each other's orientations. This implies

that people designing negotiation situations (e.g., managers) may encourage the parties to have individualistic orientations and that these orientations are known. For example, management may give clear instructions (as in this study) or use incentives that create individualistic orientations (e.g., individual-based rewards). In addition, these instructions or incentives should be communicated to all participants. Although it may feel absurd to create individualistic conditions in order to enhance high joint outcomes, it is important to remember that the main objective is to hinder the parties from making inferior compromises. Individualistic orientations may stimulate group members to participate in energetic search for integrative agreements. We thus advise managers to seek for “*energetic cooperation*” – combining the energy stemming from individualistic orientation with the cooperative behavior stemming from recognition of how individual goals best can be accomplished. The main point seem to be that negotiators should back up individualistic motives with an understanding of the need for cooperation, or back up cooperative motives with an understanding of the need for energy (i.e., low resistance to yielding). The flipside of this is, however, that members of individualistic groups (and mixed groups) were more dissatisfied with the negotiation than were members of the cooperative groups. Thus, considering the importance subjective outcomes such as satisfaction may have on further meetings in a group, stimulating members to be cooperatively oriented may be as important as stimulating them to be individualistic. Based on the present results, managers will have to be aware of which outcome-criteria that matters the most, and design the negotiations situation (if possible) accordingly.

Limitations

This study has at least three areas for potential improvement. First, there is a need to examine the negotiation process more thoroughly. We used a post-negotiation questionnaire where group members discussed the process questions before they gave

their individual answers. One strength of this procedure is that it most likely improves the participants' reflections on each of the questions. Another possible strength is that we also investigated the negotiation process in several phases, which showed that the behavior changed significantly throughout the negotiation. Still, the question of why groups changed their behavior during the negotiation remains an issue for future research. For example, although the steady increase in integrative activities in the individualistic groups is consistent with enlightened self-interest, the lack of mediating effects make further research needed to support this supposition.

Second, the present study examined the effects of motivational orientation when members were aware of the other members' orientation – a likely situation inside organizations and between organizations that negotiate frequently with each others. The present design cannot, however, tell us the direct effect of having such information about the opponent versus not having such information, and testing this question was outside the scope of our study. Interestingly, however, the negotiation task used in the current study is identical to the task used by Schei and Rognes (2005). They examined the effects of motivational orientation when members had no information, but didn't find any differences in joint outcome between group compositions. Nevertheless, comparing the joint-outcome scores of the compositions in their study with the joint-outcome scores in our study, show that their scores are similar to the scores of our cooperative and mixed oriented groups. Consequently, the composition that outperforms all other compositions in both studies is the individualistic groups where members are informed. It would be interesting to see if studies designed to test the effect of information directly could confirm the superiority of informed individualistic groups.

Finally, we cannot rule out the possibility that some participants changed their motivational orientation during the negotiations. However, we believe this to be less

likely for two reasons. First, motivational orientation is different from, and more stable than, behavior (cf. Rhoades & Carnevale, 1999). While negotiators are expected to vary how they behave to fulfill their goals, the goals themselves (e.g., the goal of maximizing individual outcome) are likely to stay relatively firm. This is why we believe that members of individualistic groups became more integrative throughout the negotiation – they kept their individual goals but changed their behavior from primarily distributive to primarily integrative when the latter behavior seemed to be the best way to accomplish their goal. Second, in the manipulation-check, our study-participants characterized their goal *after* the negotiation – indicating what had been their main goal in the negotiation (i.e., individualistic, cooperative, or other). If the participants did not adopt their given goals or changed their goals during the negotiation, this should show up in the manipulation check. Future studies should, nevertheless, make more refined examinations to better understand the relationship between negotiators' goals and behavior.

Conclusion

The results in this study convey a paradox: Cooperative groups – consisting of members who all try to maximize own and group outcome – were much poorer to reach high joint outcome than were groups where every member only cared for their own individual outcome (i.e., individualistic groups). The irony is that having a goal of reaching a good joint outcome was, in fact, harmful to the achievement of such a goal. Groups rather got to high joint outcomes when members had individualistic goals. Thus, Adam Smith's "invisible hand" – the metaphor explaining why individuals pursuing their own good tends also to promote the good of the community – seem to appear in yet another arena. The common understanding of individualistic orientations as essentially detrimental in negotiations may therefore be reconsidered.

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Tables

Table 1
Payoff Matrix

Issues	Alternatives	Role 1	Role 2	Role 3	Sum
Issue 1	A	25	0	50	75
	B	25	25	25	75
	C	0	50	25	75
	D	50	25	0	75
Issue 2	A	150	12.5	25	187.5
	B	200	0	0	200
	C	100	25	50	175
	D	0	50	100	150
	E	50	37.5	75	162.5
Issue 3	A	50	100	0	150
	B	0	0	200	200
	C	37.5	75	50	162.5
	D	12.5	25	150	187.5
	E	25	50	100	175
Issue 4	A	0	100	50	150
	B	50	0	100	150
	C	50	50	50	150
	D	100	50	0	150
Issue 5	A	100	0	50	150
	B	75	50	37.5	162.5
	C	50	100	25	175
	D	25	150	12.5	187.5
	E	0	200	0	200
Minimum payoff		0	0	0	675
Maximum payoff		500	500	500	825

Note: Negotiators saw only their own payoff, and were not allowed to exchange preference charts.

Table 2
Factor Analysis for Negotiation Process

Process Items	Integrative	Distributive
1. Not sure that the truth was told (reverse coded)	.79	-.09
2. Trusted the information exchange	.77	-.04
3. Communicated our interests clearly	.68	.33
4. Exchanged information about interests/priorities	.52	-.02
5. Pressed to get individual interests through	.09	.82
6. Conflict among members	-.35	.82
7. Argumentation	.11	.49

Note: Principal component analysis with oblique rotation. Integrative factor: Eigenvalue = 2.11 and percent of variance explained = 30.2; distributive factor: 1.69 and 24.1, respectively.

Table 3
Means, Standard Deviations, and Correlations for Study Variables

Variable	Mean	SD	1	2	3	4	5
1. Group composition (# of individualists)	2.42	1.09	1				
2. Joint outcome	758	42	.38**	1			
3. Pareto efficiency	0.00	1.00	.38**	.94***	1		
4. Satisfaction	3.49	0.33	-.37**	.06	.04	1	
5. Integrative activities (total)	4.11	0.57	-.09	.18	.04	.14	1
6. Distributive activities (total)	3.50	0.61	.10	-.06	.03	-.09	.08

Note: n = 60 groups.

** $p < .01$, *** $p < .001$

Table 4
ANOVA Results for Group Outcome across Group Compositions

Group Outcome		Group Composition				F (3, 56)	Eta-square
		CCC	CCI	CII	III		
Joint sum	Mean	750 _a	740 _a	749 _a	802 _b	7.51***	.29
	SD	44	44	23	33		
Pareto efficiency	Mean	-0.21 _a	-0.43 _a	-0.08 _a	0.92 _b	5.70**	.23
	SD	1.05	1.02	0.76	0.67		
Satisfaction	Mean	3.74 _b	3.36 _a	3.44 _a	3.36 _a	4.98**	.21
	SD	0.29	0.37	0.25	0.34		

Note: Means in the same row that do not share subscripts differ at $p < .01$. CCC = Cooperative groups, CCI = Cooperative majority groups, CII = Individualistic majority groups, and III = Individualistic groups.

** $p < .01$, *** $p < .001$

Table 5
Means for Integrative and Distributive Activities in Three Phases across Group Compositions

Group Compositions	Integrative Activities				Distributive Activities			
	Phase 1	Phase 2	Phase 3	Total	Phase 1	Phase 2	Phase 3	Total
Cooperative groups (CCC)	3.99	4.19	4.26	4.15	3.27	3.46	3.33	3.35
Cooperative majority groups (CCI)	4.10	4.03	4.01	4.05	3.10	3.70	3.56	3.45
Individualistic majority groups (CII)	3.99	4.02	3.98	4.00	3.22	3.93	3.53	3.56
Individualistic groups (III)	3.55	4.20	4.52	4.09	3.58	3.75	2.92	3.42
Total	3.91	4.11	4.19	4.07	3.29	3.71	3.34	3.45

Note: Totals refer to the means across compositions and phases, respectively.

Table 6
Regression Analyses of Negotiation Process on Joint Sum

Negotiation Process	Phase 1	Phase 2	Phase 3
Integrative activities	-.09	.17	.36**
Distributive activities	.12	.07	-.35**
R^2	.02	.03	.27
F for R^2	0.70	0.99	10.72***

Note: Regression analyses were run as three separate models, one for each phase.

Standardized coefficients are shown.

** $p < .01$, *** $p < .001$

Table 7
Hierarchical Regression Analyses on Joint Sum

Variable	Step 1	Step 2
Group composition	.38**	.31**
Integrative activities in phase 3		.34**
Distributive activities in phase 3		-.31**
R^2	.15	.37
F for R^2	9.88**	10.69***
ΔR^2		.22
F for ΔR^2		9.62***

Note: Standardized coefficients are shown.

** $p < .01$, *** $p < .001$