Running head: MOTIVATIONAL ORIENTATION AND INFORMATION

Knowing Me, Knowing You:
Own Orientation and Information
about the Opponent's Orientation in Negotiation

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Abstract

The purpose of this study was to examine the effects of motivational orientations on negotiation outcomes in unstable negotiation contexts. Instability was created by pitting individualists against cooperators (mixed dyads), and by giving only one of the parties information about the other party's orientation. A total of 162 subjects participated in negotiation simulations, where orientation and information were manipulated through instructions from management. The cooperative dyads got better outcomes than did the individualistic dyads. The mixed dyads did as well as the cooperative dyads when the cooperators had information, but did as badly as the individualistic dyads when the individualists had information. The process analyses indicated that the dyads with high outcomes achieved their results because the integrative activities increased over time. In the mixed dyads with informed individualists, the individualists reached higher individual outcome than their cooperative (uninformed) opponents. Thus, naive cooperators can easily be exploited.

Knowing Me, Knowing You: Own Orientation and Information about the Opponent's Orientation in Negotiation

Motivational orientation is a prime mover behind behavior and outcomes in negotiations, as it gives negotiators goals and directions (Pruitt & Carnevale, 1993). For example, individualists seek to maximize only their own outcomes while cooperators seek to maximize both their own and the joint outcomes. Previous research on motivational orientation has found cooperators to have more integrative behavior and to get better outcomes than individualists (De Dreu, Weingart, & Kwon, 2000). Thus, motivational orientations seem to influence outcomes in predictable ways through the goal-directed behavior they trigger. These findings are, however, confined to stable negotiation contexts. Typically, homogeneous cooperative dyads are compared to homogeneous individualistic dyads. Furthermore, there is symmetry in information about the motivational orientation of the opponent, i.e., the negotiators both have, or have not, information about their counterpart. Based on previous research we therefore do not know what happen when the stability of the negotiation context is upset, e.g., when dyads are mixed rather than homogeneous, and when information is asymmetrical.

Motivational orientations are different from, and more stable, than negotiation behavior (Rhoades & Carnevale, 1999). Negotiators may therefore vary their behavior, depending on the negotiation context, in their efforts to reach the goals implied by their motivational orientations. For example, in dyads with mix in motivational orientation, the negotiation dynamic and thereby outcomes, may depend on who has knowledge about the opponent's orientation. Therefore, in this research we focus on how motivational orientations influence outcomes in unstable negotiation contexts. We do so by (1) introducing information asymmetries in knowledge about

the orientation of the other party, and by (2) pitting cooperative negotiators against individualists (mixed dyads). Furthermore, in addition to joint outcome, we include perceptual measures of negotiation quality.

Extending research on motivational orientations into unstable negotiation contexts is highly relevant both for practice and theory. First, information asymmetry is a likely challenge for negotiators. Some negotiators may have information about their counterpart based on general reputation or from information given from individuals that have previously negotiated with the other party. Other negotiators may be completely unprepared for the orientation of the other party. Second, it is quite likely that a negotiator may meet an opponent with a different orientation, given the mixed-motive nature of the interaction (Brett, 1991). Finally, the perceived negotiation quality is important because it predicts willingness to implement agreements, and the climate in future negotiations (Brett & Rognes, 1986). From a theoretical perspective we need to know more about the relationships between motivational orientations, negotiation dynamic, and outcomes in unstable negotiation contexts. In their meta-analytical review, De Dreu et al. (2000) focused only on homogeneous dyads, but called for research on motivational orientation in less stable negotiation contexts. Presently we do not know whether the effects of motivational orientation are reduced in unstable negotiation contexts, or whether the effects depend on the nature of the instability.

Orientation and Information

Motivational orientation is an individual level variable that can be caused by stable individual differences (i.e., social value orientation), or be triggered by situational demands (i.e., motivational orientation). Research suggests that trait and state have similar effects on outcomes in homogeneous dyads (De Dreu et al., 2000).

In this study we focus on orientation as a state. We do so because most of the integrative negotiation literature we link up to (De Dreu et al., 2000) focuses on motivational orientation rather than social value orientation, and because of its potential practical relevance. Since negotiators often act on behalf of an organization, the mandate they receive from higher level management is of critical importance when they negotiate. We therefore used instructions from management to create the negotiators' orientations in the present study (Weingart, Bennett, & Brett, 1993). Also those receiving information about the opponent's orientation, got this information from their management. Below, we first discuss how orientation and asymmetrical information affect the dyadic outcomes. Then we focus on the individual level to see how orientation and information affect the parties' individual outcomes.

Dyadic Outcomes

Our first research concern is whether previously found differences between homogeneous cooperative and homogeneous individualistic dyads also hold up when information asymmetry is introduced. The results will also give us a baseline for the comparisons with mixed dyads with asymmetric information. That cooperative dyads typically reach higher joint outcomes than individualistic dyads, are found both in studies that manipulate orientation through direct instructions (e.g., Carnevale & Lawler, 1986; Giebels, De Dreu, & Van de Vliert, 1998; Lewis & Fry, 1977; Pruitt & Lewis, 1975), and in studies that manipulate situational characteristics assumed to affect orientation (e.g., Ben-Yoav & Pruitt, 1984a; 1984b; Carnevale & Isen, 1986). Cooperative dyads are more likely to share information, engage in more problem solving, and use less contentious tactics than individualistic dyads (Carnevale & Lawler, 1986; Lewis & Fry, 1977; Pruitt & Lewis, 1975).

In some previous studies, the parties have known that their opponent have had the same orientation instruction as themselves (e.g., Carnevale & Lawler, 1986; Lewis & Fry, 1977; Pruitt & Lewis, 1975). In other studies, the parties did not have this information (e.g., Giebels et al., 1998; Weingart et al., 1993), but the effects on joint outcomes are similar. We believe that the cooperative dyads also reach better agreements than the individualistic dyads when one party has information about the other's orientation. Negotiators are likely to be egocentric in their social perceptions, and without information they have a tendency to assume that opponents are similar to themselves (Ross, Greene, & House, 1977). With no information about the opponents' orientation, negotiators may be likely to project their own orientations on to the opponents' (Van Kleef & De Dreu, 2002). Research on social value orientations in experimental games also indicates that negotiators typically expect consistency between their own and the opponents' orientation (Iedema & Poppe, 1994; Kuhlman, Brown, & Tetac, 1992).

Consequently, having the information that the other party has the same orientation as oneself may only contribute to confirming already established expectations (although these expectations may be implicit). The dynamic found in cooperative and individualistic dyads (with no information) may therefore be reinforced when there is asymmetric information. Informed cooperators contribute to the development of a cooperative dynamic, resulting in integrative outcomes and high perceived negotiation quality. Informed individualists will only increase their competitive drive in order to avoid being exploited by the other party. Thus, the conflict spiral will be escalated, and the outcomes are likely to be poor. Consequently, we expect the superiority of homogenous cooperative dyads over homogenous

individualistic dyads found in previous research (De Dreu et al., 2000), to hold also when there is asymmetry in information.

Hypothesis 1: Cooperative dyads with asymmetry in information get better outcomes than individualistic dyads with asymmetry in information.

In our research we examine two different types of mixed dyads. In some dyads the cooperators have the information advantage, and in other dyads the individualists have the information advantage. Having an information advantage implies that the focal party is informed about the motivational orientation of the other party, while the other party has no such information about the focal party. The current research is concerned with how the two types of mixed dyads compare to each other, and how they compare to the homogeneous cooperative dyads and the homogeneous individualistic dyads.

The negotiation literature has seldom addressed issues related to mixed dyads and asymmetrical information. However, in general there is a tendency toward reciprocation in negotiations (Brett, Shapiro, & Lytle, 1998), and thus we may expect mixed dyads to converge either towards competition (distributive processes) or towards cooperation (integrative processes). Research on experimental games suggests that both individualists and cooperators may shift behavior (Kuhlman & Marshello, 1975; McClintock & Liebrand, 1988). Individualists (as opposed to competitors) may cooperate when situational stimuli (e.g., open communication and reversibility of choices) allow for it (Deutsch, 1960). Similarly, cooperators may compete when they perceive it as the only feasible alternative (Pruitt & Rubin, 1986). Rhoades & Carnevale (1999) state that while maintaining their original motivational

orientations, negotiators may choose widely among behavioral tactics to reach their goals.

Cooperation Theory (Deutsch, 1994) suggests that mixed dyads are unstable. We believe that the evolvement of competition or cooperation in mixed dyads may be influenced by who has the information advantage. Let us first consider the situation where the cooperators are informed. The cooperators will avoid the false consensus belief that their opponents are also cooperators. In addition, the cooperators will expect more contending behavior, guard against it initially, and not yield easily. As the cooperators have a mandate of maximizing both own and joint outcomes, they may try to steer the process towards cooperation by sending signals of willingness to cooperate, and at the same time make it clear that they will not make one-sided concessions. Such mixed communication (Brett et al., 1998) may trigger cooperation from individualists, because they learn that the best route to high individual outcome is through cooperation rather than through exploitation. The individualists do not want harm to come to their opponents, but only to maximize their own gain.

The dynamic in mixed dyads with informed individualists may be very different. The informed individualists have no incentives to help the other parties in the negotiation process. As they are informed about their opponents' cooperative orientation, use of pressure tactics is likely to be perceived as the best way to further their individual goals. The dynamic of the negotiation will therefore most likely be dominated by contentious communication that leads to poor agreements. Thus, we offer the following hypotheses regarding differences in dyadic level outcomes:

Hypothesis 2a: Mixed dyads with informed cooperators get better outcomes than individualistic dyads with asymmetric information.

Hypothesis 2b: Mixed dyads with informed individualists get poorer outcomes than cooperative dyads with asymmetric information.

Hypothesis 2c: Mixed dyads with informed cooperators get better outcomes than mixed dyads with informed individualists.

Individual Outcome

We will now turn to how joint outcome is divided between negotiators in the same dyad, beginning with the homogeneous dyads. In general, we expect information to be an advantage in negotiations, as knowledge about the motivational orientation of the other party reduces uncertainty. Consequently, the informed negotiators can adjust their behavior to their expectations about the other parties, and thereby further their own goal whether it is to maximize only their own gain or also the gain of the other party. We must keep in mind that cooperative negotiators are neither altruistic nor only concerned with the dyadic level outcomes. For example, cooperators that have been informed about the opponents' cooperative orientation may use this knowledge in the final phase of the negotiation in order to claim a larger part of the pie. They do not expect the demands to jeopardize a settlement, since the opponent is a cooperator. The informed individualists who meet uninformed individualists can use the information advantage to set extra high opening offers and concede slowly.

Hypothesis 3: Negotiators who are informed that their opponents share their orientation get higher individual outcome than their uninformed opponents.

In the mixed dyads we expect agreements that favour the informed individualists. The uninformed cooperators will, at least initially, be considerate and employ integrative tactics. This put the informed individualists in a position to exploit the cooperative negotiators with distributive behavior. An advantage for the individualists can also be found in the closing phase of the negotiation. Here the cooperators may be willing to (unilaterally) concede in order to secure an agreement that may seem to be at risk. However, when the cooperators have the information advantage, they can guard against exploitation. In summary, we therefore propose the following hypothesis regarding distribution of values between negotiators in mixed dyads:

Hypothesis 4: Individualists get higher individual outcomes than their cooperative opponents, but only when they have the information advantage.

Method

Participants

A total of 162 business students enrolled in negotiation courses served as subjects in this study. Their average age was 25 years, and women composed 43 percent of the sample. The participants received a cooperative or an individualistic orientation, and were paired with a cooperative or an individualistic opponent. In each dyad, one of the parties received information about the motivational orientation of their opponent. The participants were randomly assigned to orientation condition, information condition, and role (buyer or seller), and conditions and roles were fully counterbalanced.

Procedures

The negotiation task was a buyer-seller interaction about the delivery of television sets (cf. Pruitt & Lewis, 1975). Three issues had to be negotiated; the date of delivery, product variations, and financing terms. Each issue had nine alternative settlement points. The total payoff-matrix is shown in table 1. We chose this simulation because it is a commonly used variable-sum negotiation that allows for integrative agreements through logrolling. The parties could achieve high quality agreements by exchanging concession on their low-profit issues. The negotiation was conducted during the first meeting of the classes. Each student was assigned the role of buyer or seller, and received confidential role information. The confidential role information contained background information, manipulation instructions, and a profit matrix that showed the negotiators their individual profit associated with the different possible alternatives. After preparing individually for 10 minutes, the participants were assigned to dyads (a seller and a buyer) and led to separate rooms. The dyads were given 30 minutes to negotiate. Following the negotiation, the participants completed questionnaires regarding motivational orientations, perceived negotiation quality, and the negotiation process. Finally, the participants were debriefed.

Manipulations

Orientation. Following previous research on motivational orientation in negotiation (e.g., Pruitt & Lewis, 1975; Weingart et al., 1993), individualistic and cooperative orientations were manipulated through written instructions. The manipulations were presented as instructions from management. 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 their own and the total outcome for the two companies.

Information. In each dyad, one of the participants received information about the motivational orientation of the other party. The other participants received no information. In the information condition, the instruction about their own orientation was followed by information about the motivational orientation they should expect their opponent to have. In the case of an individualistic opponent, the participants read that based on the firm's previous experience with the opponent, they could expect the opponent to have a goal of maximizing own outcome. In the case of a cooperative opponent, the participants read that based on the firm's previous experience with the opponent, they could expect the opponent to have a goal of maximizing their own outcome and the total outcome for the two companies.

Measures

Individual Outcome. Individual outcome was measured as the total profit achieved by the negotiator across the three issues. For example, if the negotiators in a dyad agreed on 6-7 weeks on delivery time and on financing terms, and 5 product variations (see table 1), each negotiator would receive an individual outcome of 4000.

Joint Outcome. We measured joint outcome as the sum of the individual outcomes achieved by the seller and the buyer in a dyad. Thus, if the negotiators agreed on the alternative suggested above, their joint outcome would be 8000. In fully integrative agreements (e.g., zero weeks on delivery time and on financing terms), the joint outcome was 10400.

Perceived Quality. Perceived negotiation quality was measured by eight items (five-point scales). The participants were asked to indicate, individually, their satisfaction and perception of fairness with the negotiation process and outcome. They answered questions such as "How satisfied are you with the negotiation process?", and "To what extent do you find the negotiation outcome to be fair?" The reliability

of the overall index was .80, and we used the average score across items. The index may either be used at the individual or the dyadic levels of analyses. If the index is to be used at the dyadic level, homogeneous perception in each dyad must be demonstrated (George, 1990). We used the within-group interrater agreement index (James, Demaree, & Wolf, 1984) to examine consensus between dyadic members. Agreement within a group was calculated separately for each dyad. One dyad in each of the mixed dyads fell below the suggested benchmark of .70 (George & Bettenhausen, 1990) and were not included. The average interrater agreement was .95, and agreement rates did not differ across compositions. This justifies the use of the index at the dyadic level.

Negotiation Process. In order to be able to explore the negotiation dynamic in more detail, several items regarding the negotiation process were included in the post-negotiation questionnaire. The participants were asked to indicate the extent of integrative activities (exchange information about interests/priorities, clear communication about interests, and simultaneous consideration of issues), and distributive activities (the use of pressure tactics to claim value, argumentation, and conflict about the process). The dyadic members discussed each statement about the process before giving their individual answers. Typically, pair members gave the same answers. In the very few cases of disagreement, we used the average score of the dyadic members to compose the dyadic measure. The participants first answered questions regarding the overall process, and then for each of three phases. We used three phases because this is often suggested in phase-approaches to negotiations, i.e. initiation, problem-solving, and resolution (Holmes, 1992). We asked the participants to rate both the total negotiation process, and phase 1, 2, and 3 of the negotiation, separately. The participants were told in the questionnaire that phase 1 included the

initial 25 percent of the time used, phase 2 the middle 50 percent of the time, and phase 3 the final 25 percent of the time used to negotiate. A principal component analysis revealed as expected an integrative factor and a distributive factor. The reliability coefficients were .63 and .64, respectively. They are acceptable given the exploratory nature of the process investigations.

Results

Manipulation Checks

Orientation. In the post-negotiation questionnaire the participants were asked to indicate their primary objective in the negotiation. Three alternatives were available (Weingart et al., 1993): (1) maximize own outcome, (2) maximize own and the total outcome for the two companies, and (3) other. A Chi-square analysis showed that the manipulation had a significant impact on the participants' orientation, χ^2 (1, N = 162) = 91.09, $p < .0001$. Subjects in the individualistic condition were more likely to answer alternative (1), whereas subjects in the cooperative condition were more likely to answer alternative (2). Our research focus on how individuals that understand, adopt, and keep their motivational orientation performs under different contextual stimuli (i.e., information condition and opponent's motivational orientation). In the primary analyses, we therefore dropped the dyads where one or both members reported wrong motivational orientation. We did so after having found that the dropped participants did not differ in systematic ways from other participants, except for choosing an orientation different from the one given in the instruction.[1]

[1] Twenty-one of the participants' orientations were different from the ones given in the instruction. When we excluded these participants, and their dyads, and two dyads with an impasse, the total number of dyads in the primary analyses were 60 (21 cooperative, 15 individualistic, 13 mixed with informed cooperators, and 11 mixed with informed individualists). Secondary analyses including all participants showed similar result as in the primary analyses, but the effects of composition on joint outcome and integrative activities dropped to non-significance (F-values ≈ 1.5, p-values ≈ 0.20). Drop-out rate did not interact with conditions (composition and own position within composition). Neither had the dropped cases "weaker" orientation than other participants, as we found no differences between

Information. In the post-negotiation questionnaire the participants were also asked to indicate which expectations they had about the opponent's orientation before the negotiation started. The alternatives they had to choose from were the same as in the orientation check above. The factual information about the orientation of the opponents were accurately perceived, χ^2 (1, n = 60) = 20.71, $p < .0001$. Those informed about an individualistic opponent were more likely to expect an individualistic opponent, while those informed about a cooperative opponent were more likely to expect a cooperative opponent.[2]

Dyadic Outcomes

We first compared the joint outcomes in the four dyadic compositions. Means and standard deviations across the compositions are shown in table 2. Composition had a significant effect on joint outcome, F (1, 56) = 4.33, $p < .01$. The cooperative dyads (M = 9543) and the mixed dyads with informed cooperators (M = 9823) got the highest joint outcomes, while the individualistic dyads (M = 9040) and the mixed dyads with informed individualists (M = 9036) reached the lowest joint outcomes. Planned pair comparisons showed that both the two former compositions differed significantly from both of the two latter (p-values $\leq .05$). Second, we compared perceived negotiation quality in the four compositions (see table 2). Composition also had a significant impact on the perceived quality, F (1, 54) = 4.24, $p < .01$. The cooperative dyads (M = 3.83) and the mixed dyads with informed cooperators (M = 3.88) had higher perceived quality than the individualistic dyads (M = 3.53) and the

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participants with correct and wrong orientation on a question measuring the degree to which the participants tried to fulfil their primary objective.

[2] Thirteen participants did not report the correct orientation of their opponent. Most of them were those informed about a cooperative opponent. In each condition, we compared these dyads with the other dyads, and found no differences. Analyses showed that the results were almost exactly the same whether the dyads of these members were included or not. We therefore included these dyads in the primary analyses.

mixed dyads with informed individualists ($M = 3.53$). Again, the planned pair comparisons showed significant differences where both the two former compositions differed from both of the two latter (p-values $\leq .05$).

The results support our dyadic level hypotheses. With asymmetry in information, the cooperative dyads reach higher outcomes than the individualistic dyads (Hypothesis 1). The mixed dyads with informed cooperators reach higher outcomes than the individualistic dyads (Hypothesis 2a), the mixed dyads with informed individualists reach lower outcomes than the cooperative dyads (Hypothesis 2b), and the mixed dyads with informed cooperators reach higher outcomes than the mixed dyads with informed individualists (Hypothesis 2c). These results hold for both joint outcome and perceived negotiation quality.

Negotiation Process

We examined the negotiation process in order to explore the micro-mediating process between dyadic compositions and outcomes. First, we examined how the composition affected the integrative and the distributive activities, respectively. Means and standard deviations for the overall process across compositions are shown in the bottom half of table 2. Composition had a marginally significant impact on the integrative negotiation activities, F (1, 56) = 2.33, $p = .08$. The cooperative dyads ($M = 3.72$) and the mixed dyads with informed cooperators ($M = 3.72$) had more integrative negotiation activities than did both the individualistic dyads ($M = 3.27$) and the mixed dyads with informed individualists ($M = 3.24$). Composition had a significant effect on the distributive negotiation activities, F (1, 56) = 3.55, $p < .05$. The individualistic dyads had the highest level of distributive negotiation activities ($M = 3.32$), followed by the mixed dyads with informed cooperators ($M = 3.00$), the

mixed dyads with informed individualists ($M = 2.74$), and the cooperative dyads ($M = 2.68$).

In order to explore the negotiation process further, we conducted additional analyses of variance where the integrative and distributive activities in each of the three phases were examined. The dynamics are illustrated in figures 1 and 2, respectively. For the integrative activities (see figure 1), the overall 4 (compositions) X 3 (phases) model was significant, F (11, 166) = 3.79, $p < .001$. The main effects for both composition and phase were significant, while the interaction effect failed to reach significance. In addition to confirming the previous reported effects of composition, the analysis shows that integrative activities vary across phases. The integrative activities increase gradually over time and reach their highest level in the third and final stage. An inspection of figure 1 indicates that the differences in integrative activities between the cooperative dyads/dyads with informed cooperators and individualistic dyads/dyads with informed individualists are small in the initial phase and large in the final phase. For the distributive activities (see figure 2), the overall 4 (compositions) X 3 (phases) ANOVA was also significant, F (11, 168) = 2.88, $p < .01$. The main effect for composition was significant. The main effect for phase was marginally significant, and the interaction effect failed to reach significance. The distributive activities are, as shown in figure 2, highest in the middle phase of the negotiation.

The effects of process on the dyadic outcomes are presented in table 3. When the overall measures of integrative activities and distributive activities are used in regression analyses, process has a significant impact both on the joint outcome ($R^2 = .18$, $p < .01$) and on the perceived negotiation quality ($R^2 = .25$, $p < .001$). High level of integrative activities led to high joint outcome and high perceived negotiation

quality. Distributive activities did not impact outcomes significantly. When we analysed each phase separately, we found that integrative activities are more important in the latter rather than in the earlier phases of negotiation. Regarding distributive negotiation activities, we found that high level in the final phase led to low perceived negotiation quality. Finally, we also examined whether the relationship between the process and joint outcome varied across compositions, but found no differences.

Individual Outcome

In each composition we compared individual outcome for the informed party with that of the uninformed opponent. A high intraclass correlation (-0.49) between these scores made comparison by analysis of variance inappropriate. A high negative intraclass correlation (Kenny & La Voie, 1985) indicates that a high individual outcome for one member goes along with low individual outcome for the other member. The observations are thus not independent of each other, and the results from the analysis of variance are questionable (Hoyle & Crawford, 1994). We therefore conducted difference analyses by subtracting, in each dyad, the individual score of the uninformed member from the score of the informed member. By using difference analyses the dependence problem is avoided, however at the cost of reducing the degrees of freedom.

Table 4 shows means and standard deviations for the individual outcome across conditions. We first examined how the information asymmetry affected individual outcome in homogeneous dyads (cooperative and individualistic dyads, respectively). A one-sample t-test with a test-value of zero showed no significant differences between the informed and the uninformed negotiators, neither in the cooperative dyads, t (20) = 0.20, *ns*, nor in the individualistic dyads, t (14) = 0.12, *ns*.

However, in the mixed dyads with informed individualists, individualists got substantial higher individual outcome (M = 5318) than what their cooperative opponents achieved (M = 3718). Thus, the individualists obtained almost 60 percent of the total pie. A difference analysis showed this difference to be significant, t (10) = 3.71, $p < .01$. In the mixed dyads with informed cooperators, the individualists also achieved higher individual outcomes (M = 5277) than their cooperative opponents (M = 4546), but this difference was not significant, t (12) = -1.64, *ns*.

The results do not support Hypothesis 3 which suggested an information advantage in homogeneous dyads. However, the results support our Hypothesis 4 which stated that individualists will reach higher individual outcomes than what their cooperative opponents achieve, but only when they have the information advantage.

Discussion

The aim of this study was to examine the effects of motivational orientation on outcomes in unstable negotiation contexts. Instability was created by having mixed dyads where cooperators negotiated with individualists, and by giving only one member in each dyad information about the motivational orientation of the opponent.

At the dyadic level of analysis the results appear to be quite clear. The cooperative dyads did better than the individualistic dyads. This confirms previous research (De Dreu et al., 2000), and indicates that asymmetrical information do not change the cooperative dyads' superiority over individualistic dyads. The most interesting findings are related to the mixed dyads. When the cooperators had an information advantage, the mixed dyads did as well as the cooperative dyads. When the individualists had the information advantage, the mixed dyads did as badly as the individualistic dyads.

Our explorative process examination indicates that the cooperative dyads and the mixed dyads with informed cooperators also are similar to each other with regard to negotiation dynamics. The individualistic dyads and the mixed dyads with informed individualists are also similar to each other and different from the others. Thus, mixed dyads seem to converge towards cooperation or competition depending upon who has the information advantage. It is worth noting that the major differences seem to be related to integrative activities in the later phases of the negotiations. The cooperative dyads and the mixed dyads with informed cooperators increased the integrative activities over time, the other dyads did not. Thus, it is not the initial integrative activities or the distributive activities that distinguishes between the different dyadic compositions.

It seems that the informed cooperators in mixed dyads are able to guard against exploitation, and that the individualists must participate in integrative activities in order to increase own gain. In the mixed dyads with informed individualists, the individualists seem to increase own gain by exploiting the cooperators. This is confirmed by our individual level analyses. We only found unbalanced distribution of values in the mixed dyads with informed individualists. Here the individualists exploited the naive cooperators.

Implications

The findings in this study have several implications regarding the effects of motivational orientation. Previous research has found motivational orientation to affect negotiation processes and outcomes in predictable ways when we have stable negotiation contexts. The present study shows that motivational orientation also influence outcomes in unstable negotiation contexts. Mixed dyads are not doomed to distributive processes and outcomes. They may in fact under some circumstances

create an integrative dynamic that results in high quality agreements. The circumstance that facilitated for cooperation in this study was the information advantage of the cooperators. When the individualists had an information advantage, the mixed dyads became similar to homogeneous individualistic dyads. Future research should on a broader base investigate factors that drive mixed dyads toward either cooperation or conflict.

The results show the importance of having information about the opponent's orientation. The potential importance of knowing the opponent's orientation has been pointed out earlier; as such knowledge may affect trust in the negotiation (Kimmel, Pruitt, Magenau, Konar-Goldband, & Carnevale, 1980). However, this earlier study did not investigate the effects of asymmetrical information. Our study shows that asymmetrical information may have a substantial effect on the process and performance, not in homogeneous dyads, but in mixed dyads. An obvious avenue for further research is thus to examine fully informed dyads. This will give more comprehensive knowledge of the complex relationships between information and orientation that have been detected in this study.

We included a perceptual measure of negotiation quality in this study. Given the importance of perception for the aftermath of negotiations, it is important to know if perceptual and objective measures of outcomes are positively interrelated. After negotiations, participants will not always in detail know the objective quality of their agreements. Negotiators must then rely on perceptual indicators of quality. In addition to substitute for objective indicators of quality, perceived negotiation quality is important because it may influence the implementation of negotiated agreements and also future negotiations between the parties. In our study, perceived negotiation quality was positively related to joint outcome, and had the same causes. This result

suggests that negotiators may trust their perceptions when evaluating negotiations. Future studies should, however, use more fine-grained measures of perceived negotiation quality. They should also use other negotiation tasks than the relatively simple simulation used here.

Our results regarding the negotiation phases support the importance of examining processes over time (Olekalns, Smith, & Walsh, 1996). Interestingly, in our study orientation and information did not affect the initial negotiation phase, but were influential in the final phase. This result is in harmony with De Dreu & Van Lange (1995). They found no differences in demands and concessions between cooperators and individualists in the first two rounds of a negotiation simulation, but found that differences developed over time. Thus, further research should explore whether in fact the critical impact of orientations comes in the later phases of negotiations, rather than in the early ones.

The results from the process analyses suggest that it is more important to get an increase in integrative activities over time, rather than to hinder distributive activities. Distributive activities only had a weak negative effect on the outcomes, while integrative activities had a considerable positive effect on both joint outcome and perceived negotiation quality. Further studies should, however, investigate which factors that contribute to integrative activities and which factors that reduce the likelihood of distributive activities in negotiations. The factors may not be the same, and knowledge about them may have interesting implications for advicing negotiators on how to manage the negotiation process.

The limitations of this study should also have implications for future research. For example, the study should be replicated on different samples and in different negotiation situations, as using students in controlled settings have its limitations. In

addition, upcoming studies should manipulate the orientation and information in different ways in order to see whether the results depend upon how the orientation is induced. Furthermore, in our study, the manipulation check for motivational orientation was conducted immediately after the negotiation. This may cause the process and outcome to influence the responses to the manipulation check. The results must be evaluated with this limitation in mind. Our purpose was, however, to examine the effects of motivational orientations among individuals that kept their motivational orientation throughout the negotiations. Future studies are needed to examine the conditions under which negotiators change their orientations over time.

We also suggest the negotiation process to be examined in more detail (cf. Olekalns & Smith, 1999). In our exploratory analyses on process we used subjective and retrospective data to capture integrative and distributive activities. Perceptual data may, however, inaccurately reflect actual behavior. It is therefore preferable to code transcripts from the negotiations, based on well developed coding schemes and procedures. Although our study is parsimonious in its dynamic analyses, it is based on relatively broad measures and on perceptual rather than objective data about the negotiation process.

Finally, the present research has potential practical implications. The most salient implication is for the naive cooperators. The uninformed cooperators meeting informed individualists face the risk of being exploited. Thus having a reputation of having a cooperative orientation may be a two-edged sword. The cooperators must safeguard themselves against exploitation by actively trying to acquire knowledge about the opponents' goals both before and during the initial phase of negotiations. This can be achieved through consultations with people familiar with the other party, and through active listening in the negotiation (Pruitt & Carnevale, 1993). We do,

however, not recommend that negotiators try to take advantage of their cooperative counterparts. Admittedly, informed individualists get more value than their naive cooperative counterparts. But they only end up getting a large share of a small pie.

Conclusion

This study confirms that motivational orientation is important for negotiation behavior and outcome (De Dreu et al., 2000). Furthermore, it extends on previous research by focusing on the effects of motivational orientations in unstable negotiation contexts. Given the increased heterogeneity in organizations and in business transactions, negotiators are likely to differ in motivational orientation and in knowledge about their opponents' orientation. The main conclusion from this study is that the interplay of these variables may be quite complex. The good news is that mixed oriented dyads can develop integrative processes and achieve high joint gain. The bad news is that naive cooperators may easily get exploited.

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Tables

Table 1

Payoff Matrixes for Buyer and Seller

Delivery time			Product variations			Financing terms		
Alternative	Buyer	Seller	Alternative	Buyer	Seller	Alternative	Buyer	Seller
0 weeks	4000	0	9	2400	0	24 weeks	1600	0
1 week	3500	200	8	2100	300	18 weeks	1400	500
2-3 weeks	3000	400	7	1800	600	12 weeks	1200	1000
4-5 weeks	2500	600	6	1500	900	8 weeks	1000	1500
6-7 weeks	2000	800	5	1200	1200	6-7 weeks	800	2000
8-9 weeks	1500	1000	4	900	1500	4-5 weeks	600	2500
10-11 weeks	1000	1200	3	600	1800	2-3 weeks	400	3000
12-13 weeks	500	1400	2	300	2100	1 week	200	3500
14 weeks	0	1600	1	0	2400	0 weeks	0	4000

Note: Negotiators were only shown their own payoff matrix and were not allowed to exchange payoff matrixes.

Table 2

Means and Standard Deviations for Dyadic Outcomes and Process across Compositions

Variables		CC	CI	IC	II
Joint outcome	*M*	9543_{a}	9823_{a}	9036_{b}	9040_{b}
	SD	767	377	923	565
Perceived quality	*M*	3.83_{a}	3.88_{a}	3.53_{b}	3.53_{b}
	SD	0.33	0.30	0.25	0.40
Integrative activities	*M*	3.72_{a}	3.72_{a}	3.24_{b}	3.27_{b}
	SD	0.58	0.72	0.70	0.74
Distributive activities	*M*	2.68_{a}	3.00_{ab}	2.74_{a}	3.32_{b}
	SD	0.67	0.41	0.69	0.63

Note: CC = Cooperative dyads with asymmetric information, CI = Mixed dyads with informed cooperators, IC = Mixed dyads with informed individualists, and II = Individualistic dyads with asymmetric information.

Means in the same row that do not share subscripts differ at $p \leq .05$ for joint outcome, perceived quality, and distributive activities, and at $p \leq .10$ for integrative activities.

Table 3

Regression Analyses: Negotiation Process on Dyadic Outcomes

Dependent Variables		Integrative Activities	Distributive Activities	R^2
Joint outcome	Overall	.39**	-.16	.18**
	Phase 1	.12	-.11	.02
	Phase 2	.35**	-.17	.14*
	Phase 3	.38*	-.08	.15*
Perceived quality	Overall	.50***	-.04	.25***
	Phase 1	.26*	.06	.08
	Phase 2	.46***	-.18	.22***
	Phase 3	.44***	-.25*	.25***

Note: Standardized coefficients are shown.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4

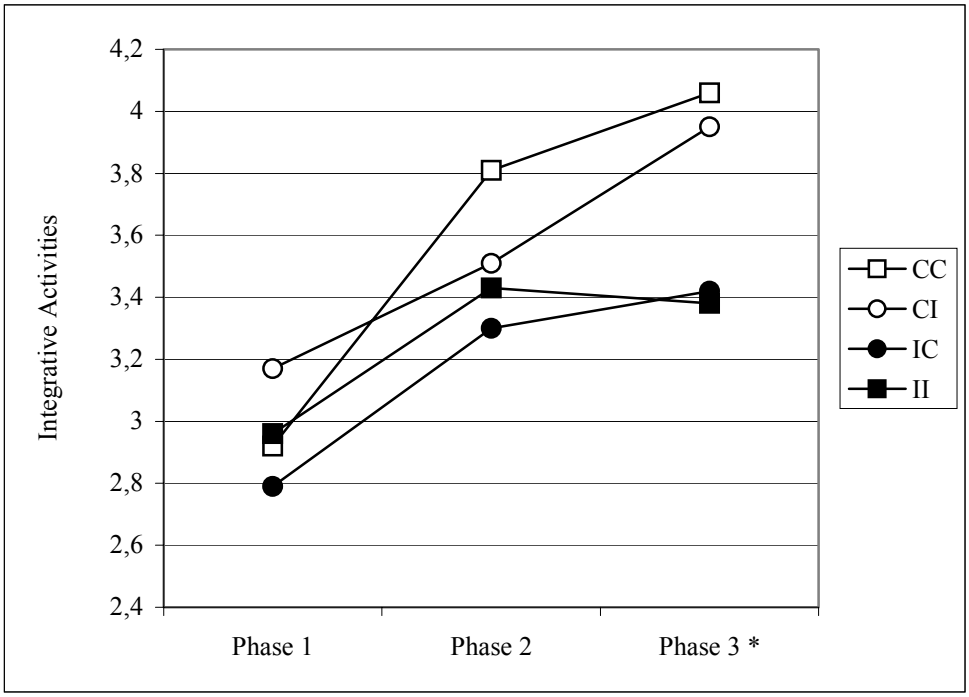
Means and Standard Deviations for Individual Outcome across Conditions

Composition	Informed Party		Uninformed Party	
	M	*SD*	*M*	*SD*
Cooperative dyads (CC)	4800	683	4743	808
Individualistic dyads (II)	4540	696	4500	709
Mixed dyads, individualist informed (IC)	5318_a	922	3718_b	773
Mixed dyads, cooperator informed (CI)	4546	840	5277	809

Note. Means in the same row that do not share subscripts differ at $p \leq .05$.

Figure 1

Effects of Dyadic Composition on Integrative Activities

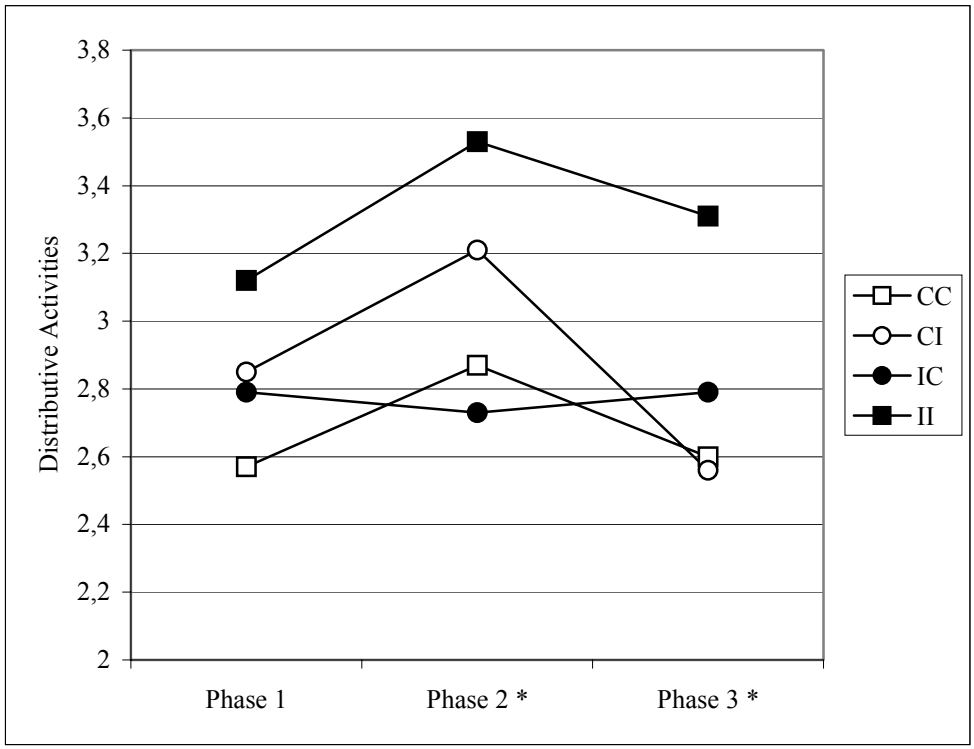


Note: CC = Cooperative dyads with asymmetric information, CI = Mixed dyads with informed cooperators, IC = Mixed dyads with informed individualists, and II = Individualistic dyads with asymmetric information.

* $p < .05$.

Figure 2

Effects of Dyadic Composition on Distributive Activities



Note: CC = Cooperative dyads with asymmetric information, CI = Mixed dyads with informed cooperators, IC = Mixed dyads with informed individualists, and II = Individualistic dyads with asymmetric information.

* $p < .05$.