Misleading in social decision-making : a motivational approach
Steinel, W.

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"Where are the four coins now?" asked the Fairy. "I've lost them," replied Pinocchio, but he was telling a lie, because they were in his pocket. As he told the lie, his nose, which had always been long, suddenly grew two inches longer. "And where did you lose them?" "In the wood near by." At this second lie, his nose grew some more. "If you lost them in the nearby wood," said the Fairy, "we'll hunt for them and find them, for everything that is lost there is always found." "Oh! now I remember properly," answered the puppet, getting in a muddle. "I did not lose the four coins, but I swallowed them when I was taking your medicine." At this third lie, Pinocchio's nose lengthened in such an extraordinary manner that he could not even turn around (...) The Fairy was watching him and laughing. "Why are you laughing?" asked the puppet, embarrassed and anxious about the nose which was growing before his very eyes. "I am laughing about your lies." "How do you know I am lying?" "Lies are quickly recognized, my lad. There are two kinds of lies, lies with short legs and lies with long noses. Yours, just now, happen to have long noses." 6

Lying and deception have been studied in a variety of disciplines, from a variety of perspectives. Social psychology and related disciplines have focused on the "lies with the long noses," that means, lies that stare you straight in the face. Social psychologists have investigated how deception manifests itself in a liar's facial expression, language, body movements, etc. Of course, lies cannot be detected from the elongation of a liar's nose, as in Pinocchio's case. Nevertheless, people's emotional display and nonverbal expressions change when telling lies in contrast to telling the truth (e.g., DePaulo, 1992; DePaulo et al., 2003; Ekman, Friesen, & O'Sullivan, 1988).

"Lies with short legs," that is, lies with which the truth soon catches up, have

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been the province of forensic psychologists and psychometric scholars. They have developed tests and devices to make sure that liars do not get away with it. Researchers have been trying to find out more about what people do when they lie and deceive, and how liars can be differentiated from truth-tellers. Hence, from previous work, we know quite a bit about the enactment and the perception of lying and deception.

Research has remained relatively silent, however, about the conditions that foster or inhibit tendencies to mislead others. Lewicki (1983) suggested a couple of factors which influence the motivation to select a deceptive influence strategy. On the one hand, deception is a function of the consequences of earlier (deceptive) behavior and the evaluation of these consequences. On the other hand, Lewicki's model suggests that situational factors, such as relationship between the parties, power, status, or norms, and individual differences, such as values, traits, or demographic variables, influence the motivation to lie. Research has subsequently addressed many of these factors. However, previous research has several shortcomings, and addressing those was the aim of this dissertation. First, prior research has systematically assumed that individuals in conflict and negotiation are exclusively motivated to do well personally and to disregard the outcomes of their negotiating partners. Second, and related to the first point, prior research has ignored the fact that individuals often have information or beliefs about their partner's cooperative or competitive goals. Third, previous work has remained silent on the fact that in conflict and negotiation people are more or less concerned with face and reputation. Fourth, and finally, past work has helped gain insight into when and how often people lie and deceive, but has not addressed the questions why and how they do so. All these issues were addressed in the present dissertation.

The main goal of this dissertation was to investigate when, why, and how people mislead interdependent others. Approaching lying and deception from a motivational perspective, I investigated the influence of people's own social value orientation and of people's expectations about their counterpart's motivational goal on the provision of accurate and inaccurate information. I further investigated, on the one hand, the role of fear, greed, and punitive sentiments as factors which promote the use of deception, and, on the other hand, concern with reputation and self-monitoring as factors inhibiting deception in social decision-making.
The Effects of Expectations About the Other's Motivational Goals

It is notable that prior research on lying and deception has neglected one of the most important individual difference measures in the context of interdependent decision-making. Social value orientation, that is, a person's preference for certain outcome distributions between oneself and interdependent others (McClintock, 1972, 1976; Messick & McClintock, 1968; Van Lange, 1999), is an important determinant of behavior in social dilemmas (e.g., De Best-Waldhober & De Dreu, 2000; De Cremer, 2000; Gärling, 1999; Van Lange & Kuhlman, 1990; Van Lange & Visser, 1999), interdependent decision-making, and negotiation processes and outcomes (e.g., Beersma, 2002; Beersma & De Dreu, 1999; De Dreu & Carnevale, 2003; De Dreu & Van Lange, 1995; Olekalns, Smith, & Kibby, 1996; Van Kleef & De Dreu, 2002).

Recognizing the importance of social value orientation for social decision-making, I investigated how social value orientations and expectations about an opponent's social motive influence lying and deception. Social decision-making entails choices made by (at least) two persons, whose decisions are influenced by their social value orientations. Hence, one player's expectations about the counterpart's motivational goals should be crucial in his or her attempt to influence the counterpart's decision-making. Based on goal-expectation theory (Pruitt & Kimmel, 1977), which states that expecting the counterpart to cooperate is a necessary prerequisite for cooperative action to evolve, I reasoned that expecting a competitive opponent would reduce the inhibition to engage in unethical behavior (Rubin, Pruitt, & Kim, 1994), increase the fear of being exploited (Coombs, 1973; Pruitt & Kimmel, 1977), and make greed a more salient goal, which in turn leads to more lying and deception aimed at doing well for oneself, perhaps even at the expense of the other. Consequently, I predicted that seeing the other as competitive rather than cooperative would reduce the tendency to be accurate and increases the tendency to be dishonest and deceitful.

In Experiment 1, I showed that lying and deception do indeed depend on people's expectations about their counterpart's motivational goal. Participants lied more when they expected a competitive rather than a cooperative other. Moreover, when expecting a cooperative rather than competitive opponent, the participants provided more accurate information as well. The same pattern of results was found
in Experiments 3 and 4. I applied the Information Provision Game as experimental paradigm in Experiments 1 and 3, whereas the results in Experiment 4 were obtained using a traditional bargaining scenario.

Thus, the first major contribution of this dissertation to the existing theoretical understanding of lying and deception in social decision-making is that it demonstrated the influence of other’s motivational goal. Whether people expect to interact with a cooperative or a competitive counterpart has been shown to be a key factor in predicting cooperation in social dilemmas and negotiation (Komorita & Parks, 1995; Pruitt, 1998). The present findings show that expectations about a counterpart’s motivational goal influence the provision of information in distinct, predictable ways. This finding has implications for interdependence theory and goal-expectation theory, which will be discussed later on.

**Strategic Misrepresentation**

Prior research on lying and deception has predominantly elicited information on when and how often people lie and deceive, but has not addressed the question *how* they do so. I reasoned that the best strategy one could adopt when dealing with a competitive counterpart would be to pretend that one’s own preferences are opposed to what they really are, and, thus, compatible with the opponent’s interests. Furthermore, it would be wise to make a claim about the interests involved which is out of the proportions to the actual distribution of interests, saying that one would gain more and lose more from each decision than the competitive opponent. That is, participants should suggest that a decision which yields the outcome "zero" to the opponent would yield a negative outcome to themselves, and decisions which yield a high positive outcome to the opponent would yield an even higher outcome to themselves. By doing so participants would suggest that their interests are positively correlated with those of the competitive opponent – in other words, they would present the situation as one in which the counterpart cannot achieve high relative gain if he or she chooses the option which increases his or her individual gain. As a result, a high individual outcome for the opponent would seem to be a relative loss (because the participants pretended that he or she would gain even more), whereas a zero outcome for the opponent would seem to be a relative gain (because the participant pretended that he or she would
get a negative outcome). I predicted that individuals would misrepresent their preferences and priorities in such a way that opposing interests would appear as compatible interests when the other is believed to be competitive, but not when the other is believed to be cooperative. To recap, facing a competitive counterpart, participants were expected to misrepresent their situation as one in which they and the competitive counterpart were allies rather than opponents, and, in fact, that is what participants did – this pattern was found in all experiments using the Information Provision Game.

The second substantial contribution of this dissertation is that it managed to shed light on the question how people try to steer a counterpart's decision-making by the information they provide. Towards a competitive counterpart, participants strategically misrepresented the situation as one involving common interests. They signal their counterpart that he or she would sustain a relative loss if he or she took a decision which increases his or her individual gain, but would get a relative gain if he or she took a decision which decreases his or her individual outcome.

The finding that participants misrepresent their preferences towards a competitive opponent, but not towards a cooperative one, has interesting implications for interdependence theory. A crucial aspect of interdependence theory (Kelley & Thibaut, 1978) is the notion that it is not the outcome matrix as it is given that influences people's behaviors. Rather, people transform the given matrix into an effective matrix. Central to these outcome transformations is people's concern with own and other's outcomes. How and when people transform matrices depends on various factors, such as social norms, relation-specific motives, situational structure, needs of the parties involved, and personal dispositions (for a recent review, see Rusbult & Van Lange, 2003).

The present findings take interdependence theory a step further because they suggest that people anticipate their counterpart's matrix transformation. Obviously, the participants managed to step into their opponent's shoes and find out what information he or she must have, so that his or her expected matrix transformation would lead him or her to a decision which is favorable to the participant. Taking the information provided by the participant at face value, the competitive counterpart could only (mistakenly, as we know) construe the situation as one in which the only chance he or she had to achieve relative gain and prevent
relative loss would entail making the decision to go for zero points, thereby "dealing out" a negative payoff to the participant. In fact, the participant would achieve a good outcome through this decision.

Besides, this type of strategic misrepresentation could serve two other related aims. First, misrepresenting the situation as one that involves compatible issues signals to the opponent that, he or she "can't win" - no matter what decision he or she takes, attempting to defeat the information provider is a lost cause. The information provider is confronted by a competitive counterpart who can take a decision which yields him- or herself a high individual outcome. The information provider cannot prevent the decision maker from choosing the individually high outcome. However, by pretending interests which are opposed to his or her actual ones, the information provider can make the other believe that, even though he or she got excellent outcomes for him- or herself, he or she did beat the information provider. Spoiling the opponent's joy a bit might be another motivation to pretend that one gets higher outcomes than the other, despite the opposite being true. Second, misrepresenting one's preferences and priorities makes the situation appears to be a cooperative one, in which the participant and the (competitive) decision maker are "swimming or sinking together." Seeking partnership and aligning oneself with a competitive other may be effective in getting the other to cooperate rather than compete. This reasoning has much in common with the Machiavellian principle of "if you can't beat them, join them." Also, there is evidence that competitive individuals are especially cooperative towards others if they all belong to the same group competing against another group (Carnevale & Probst, 1998). Although this will not benefit the participant in the present situation, it may serve a longer-term perspective in that the competitive other might come to see the participant as an ally rather than an adversary in future exchanges. Obviously, future research is needed to corroborate or invalidate these speculations.

**The Motives Behind Misleading a Competitive Counterpart**

In Experiment 2 of Chapter 3, I further investigated the mediating processes that explain these consistent effects. I reasoned that situations in which one has to deal with a competitive other might make greed more salient, might cause one to
fear exploitation, or might raise the desire to punish (expected) wrongdoing. Greed, fear, and punitive sentiment were given differential weight by independently making the outcome for the participant and for the fictitious opponent more or less important.

The results suggested that withholding accurate information was motivated by fear as well as greed. People hesitate to share their private knowledge when they fear that their counterparts might take advantage of it. Fear, however, was not the mediating process behind lying. Rather than fear, it was greed that seemed to be what motivated people to give inaccurate information. In other words, the results suggested that greed motivated a reduction in cooperative behavior, as well as an increase in competitive behavior, while fear only motivated a reduction in cooperative behavior. This may indicate that fear of being exploited activates avoidance tendencies and a desire to escape the situation, whereas greed activates approach tendencies. This seems intuitively appealing, but research is needed to examine this issue. Also, this result suggests that being honest and being deceptive are not the end points of one and the same continuum. Rather, they appear to be different types of behavior that can be motivated by the same, or by different goals.

Taking account of recent theory and research, a third possible motive underlying lying and deception, namely punitive sentiment (Price, Cosmides, & Tooby, 2002) was proposed. In Experiment 2 of Chapter 3, it was found that lying and deception were positively correlated with punitive sentiment. However the manipulation of various levels of punitive sentiment through making the outcomes important to the fictitious opponent failed. Drawing on social dilemma research, it was argued that punitive sentiment may be stronger for some individuals than for others. Consistent with this claim, Experiments 3 and 4 revealed the so-called over-assimilation effect – the tendency for pro-social individuals to be even more competitive (i.e., deceptive) towards competitive others than selfish individuals are (Kelley & Stahelski, 1970; Van Lange, 1992). The over-assimilation effect is usually explained by arguing that pro-social individuals try to "teach the competitive other a lesson," an explanation strongly compatible with the punitive sentiment motive studied in Experiment 2 of Chapter 3. Results could have been stronger: The test for mediation in Experiment 2 failed, and no measures of punitive sentiment were included in Experiment 3 and 4 of Chapter 3. Nevertheless, results suggest that lying
and deception can be motivated by punitive sentiment – the desire to punish the other for some observed or expected wrongdoing. Future research could examine this issue in more detail.

All in all, two significant contributions of this dissertation are that it sheds light on the processes underlying the provision of accurate and inaccurate information, and that it describes the influence of one's own social value orientation.

**Concern with Reputation as a Barrier Against Lying**

Whereas the studies in Chapter 3 focused on factors that stimulate lying and deception, in Chapter 4 I investigated one possible motivation for refraining from self-serving lying, namely concern with reputation. I argued that people lie less when they have reason to assume that engaging in lying and deception would harm their reputation. I contrasted a social psychological with an economic model of reputation concern and showed that people engage in less lying and deception when they are observed, even in the absence of further economic consequences. This finding supports the social psychological model of reputation concern – people gave significantly less inaccurate information when they were observed rather than when they acted in private. Drawing upon this finding, I argued and showed that people's predisposition to engage in self-monitoring (Lennox & Wolfe, 1984; Snyder, 1974) moderates the effects of reputation concern on lying and deception. While low self-monitors were not influenced by mere observation and lied as much when they were observed as when they were not, high self-monitors lied less when they were observed.

Another contribution of this dissertation, therefore, is that it adds to our knowledge about how reputation concern and self-monitoring influence lying and deception. Reputation concern becomes a reason to engage in less lying and deception as soon as one's behavior is observed, even when this has no economic consequences. The finding that people care about the impression they make contradicts the economic model of human behavior, which suggests that they merely try to increase their own outcome, and points to a social psychological model of human behavior, which suggests that behavior can be motivated by other needs than profit maximization alone, for example, by self-presentation.
Earlier research has suggested that high self-monitors engage in more lying and deception than low self-monitors. High self-monitors are more convincing liars than low self-monitors because they inform more carefully about the targets when they prepare their lies (Elliott, 1979), are more adept at controlling their expressive behavior while lying (Miller, DeTurck, & Kalbfleisch, 1983; Siegman & Reynolds, 1983), and are better at adopting the content of their lies to the expectations of the target (Rowatt, Cunningham, & Druen, 1998). High self-monitors have also been shown to be better lie-detectors than low self-monitors (DeTurck & Miller, 1990; Geizer, Rarick, & Soldow, 1977). Earlier research suggests that high self-monitors are less resistant to lying than low self-monitors, because they are more adept at hiding leakage cues and, consequently, must be less afraid to get caught. The present data completes that picture by showing that, under certain conditions, high self-monitors might be even more resistant to lying than low self-monitors. Two situational features seem to be necessary to discourage high self-monitors from lying and deceiving. First, social cues in the situation suggest that lying could damage one's reputation. In the experimental situation, this social cue was the audience who observed the participants choices. Second, it must be obvious that liars cannot hide their deception. In the experimental situations, participants believed that the audience knew the size of their actual payoffs, and could therefore detect their deceit when their messages differed from that factual information.

**Theoretical Implications**

As discussed in detail in Chapter 3, the work reported in this dissertation drew on two related theoretical accounts – interdependence theory (Kelley & Thibault, 1978; Rusbult & Van Lange, 1996, 2003) and goal expectation theory (Pruitt & Kimmel, 1977) and further applied insights from research in a behavioral decision tradition (Boles, Croson, & Murnighan, 2000; Kagel & Roth, 1995; Murnighan, Babcock, Thompson, & Pillutla, 1999; Schweitzer & Croson, 1999). Contributions to each of these lines of inquiry have been elaborated in the Discussion section of Chapter 3. Therefore, at this point, I will only summarize them briefly.

Goal expectation theory predicts cooperative and competitive choice behavior in the context of classic experimental games like the Prisoner's Dilemma Game. It states that the two prerequisites of cooperative behavior are having cooperative
goals, and expecting the counterpart to have cooperative goals, too (Pruitt & Kimmel, 1977). The present results are highly consistent with this general prediction, and extend goal expectation theory to the domain of lying and deception. That is, the experiments reported in Chapter 3 allow the conclusion that individuals provide truthful information only when their counterpart is believed to be cooperative, and they themselves have a pro-social value orientation.

Like goal expectation theory, interdependence theory (Kelley & Thibaut, 1978; Rusbult & Van Lange, 1996, 2003) is primarily concerned with cooperative and non-cooperative behavior in Prisoner's Dilemma type of situations. Within interdependence theory, social value orientations and expectations about other's goals and intentions play a key role. No past research has explicitly considered lying and deception as a function of social value orientation, or expectations about other's goals. The fact that the present results are highly consistent with findings obtained in research focusing on cooperative and non-cooperative choice behavior indicates that key features of interdependence theory also apply to other types of behavior than cooperative and non-cooperative choices.

Researchers in the behavioral decision approach to mixed-motive interdependence tend to assume that decision makers are bounded in their rationality but otherwise motivated to increase their own profit as much as possible (e.g., Kagel & Roth, 1995). Current findings contradict this assumption at least to some extent, in that they show that lying and deception are influenced by the participant's social value orientation as well as by the participant's beliefs about the other's cooperative or competitive motivation. The influence of social value orientations indicates that individuals are not exclusively motivated by their immediate self-interest (for a discussion, see Rusbult & Van Lange, 1996). The influence of beliefs about other's cooperative or competitive goal is particularly troublesome for the behavioral decision approach, because self-interest alone would predict as much misrepresentation towards a cooperative other as towards a competitive one.

All in all, the present results contribute to goal expectation theory and interdependence theory by showing that their key predictions extend to the provision of accurate and inaccurate information. Second, the present results underscore the importance of fear and greed as underlying motives, but also show
that greed motivates the reduction in being accurate and the increase in being inaccurate, while fear primarily motivates the reduction in being accurate. Third, the present results point to punitive sentiment as a third potentially interesting motive for being deceitful, and suggest that pro-social individuals may be more susceptible to punitive sentiments than selfish individuals. Fourth, the present results contribute to the small body of research on lying and deception in the behavioral decision tradition by showing that both one's own social value orientation and beliefs about other's motivation strongly influence lying and deception. This contribution is important because it questions the model of humans as rational utility maximizers, so pervasive in this research tradition. Fifth, the present results show that humans facing a competitive other may be highly strategic not only when attempting to hide their true preferences and priorities, but also when strategically misrepresenting their private information, thereby anticipating the opponent's matrix transformation. Finally, the findings show that reputation concern becomes a barrier against lying and deception as soon as people realize that they are under public scrutiny. This is especially true for people high in self-monitoring.

Strengths and Limitations of the Information Provision Game

The contributions to theory discussed above largely derive from a newly developed Information Provision Game. The game was modeled after the dictator game (Camerer & Thaler, 1995, Van Dijk & Vermunt, 2000) and resembles the social interaction situation in which one party has to decide whether to provide the other with information about one's preferences and priorities. In the Information Provision Game, the participant's own outcomes depend on a decision made by a counterpart. For each of the decision options the counterpart faces, the participant has full information about the payoffs to both oneself and the counterpart. The counterpart, in contrast, is believed to be informed only about his or her own payoffs, and to have no information about the consequences of his or her choice to the outcomes of the participant. Participants may provide information about the consequences the other's decision would have for the participants' outcomes. Thereby, they can make some options appear more or less attractive and thus try to steer the other's decision.

The experimental task allows looking at the provision of information in close detail and to learn more about the amount of accurate and inaccurate information
presented, as well as about the direction of deceit. This is an important advance over earlier studies on lying and deception which were only able to code whether lying or deception occurred or not. Two questions should not be unanswered at this point. First, the reader may wonder whether findings obtained by means of this new game generalize to other settings. The replications of the main Information Provision Game finding through more traditional methods would suggest that they do. In Chapter 3, the findings obtained in Experiment 3 were replicated in Experiment 4, which used a more conventional transaction decision setting used in previous research on lying and deception (see e.g., Schweitzer & Croson, 1999). In Chapter 4, the findings of Experiments 2 and 3, which were obtained using the Information Provision Game, replicate the pattern of results obtained from the scenario questionnaire in Experiment 1.

Moreover, the results are highly consistent with those obtained in studies using face-to-face negotiation games (e.g., Murnighan et al., 1999; O'Connor & Carnevale, 1997). Second, the reader may feel the situation is set up in such a way that participants could easily guess the hypothesis and try to conform to the experimenter's expectations. Although the possibility that demand characteristics explain some of the results cannot be ruled out, it is unlikely that participants could accurately anticipate the over-assimilation effect found in Experiments 3 and 4 of Chapter 3, or the interaction with self-monitoring found in Experiment 3 of Chapter 4. It is also unlikely that participants managed to guess the hypothesis about the direction of deceit, which was confirmed in all experiments using the Information Provision Game. Thus, the more interesting and important results obtained by means of the Information Provision Game are difficult to explain in terms of demand characteristics, and generalize to other settings.

It should, however, be noted that some features of the Information Provision Game might have facilitated lying and deception. The setting ruled out negative long-term effects of lying (cf., Boles et al., 2000), participants did not have to fear that others could detect their lies by noticing a telltale incongruous facial expression (Drolet & Morris, 2000). Moreover, participants could have seen their lack of decision power as a justification for lying (Deutsch, 2000). Obviously, these features may affect the overall base rate of lying and deception. Nevertheless, the fact that the key findings of Experiments 1 and 3 of Chapter 3 were replicated with a more traditional
methodology in Experiment 4 suggests that the effects of the experimental manipulations are valid and reliable. Moreover, the features just noted can be easily adapted, for example to study lying and deception as a function of visual access, decision power, or concern for long-term relationships.

**Avenues for Future Research**

In the present dissertation research, I investigated when, how, and why people mislead a counterpart in interdependent decision-making. This research added to our knowledge about the role of social motivation in lying and deception. Yet at the same time, it also raised several follow-up questions, some of which have already been outlined above.

**Behavior Towards a Competitive Opponent**

The present results show that when people face a competitive opponent, they try to strategically mislead him or her. People do not reveal their private information honestly, which would mean to describe the situation as on involving opposed interests. Rather, they present the situation as one involving common interests. Doing so can serve two related purposes, both of which have to do with the matrix transformation which the competitive opponent is assumed to make. One purpose is to try and steer the opponent into choosing the option which gives him or her zero points, and the highest outcome to the participant. The second purpose is to spoil the decision maker’s joy about his or her high outcomes by pretending that one would get as much (or even more), and at the same time to signal that one is an ally rather than an opponent. The latter purpose is related to the Machiavellian principle of "if you can’t beat them, join them."

A way of misrepresenting the situation and trying to achieve both purposes is to pretend that one’s gains as well as losses would exceed the gains or losses of the opponent. Thereby, one could steer the competitive opponent towards opting for the outcome which is worth zero to him or her, because he or she expects the zero-outcome to be a relative advantage, as compared to the negative outcome the information provider. Influencing the opponent’s choice like this would mean a high outcome to the information provider, as the situation, in fact, involves opposed interests.
A milder version of misrepresentation, which can only achieve the psychological purpose, is to pretend compatible interests, without saying that one's gains and losses would exceed those of the opponent. Such a misrepresentation would probably not suffice to steer the other towards choosing the zero-outcome for him or herself. Rather the opponent would then choose the most valuable outcome to self, and would assume that the information provider would get a similar payoff. Outcome-wise, therefore, this misrepresentation without recourse to exaggeration would not pay off for the information provider. Psychologically, however, it might pay off, as the decision maker is bound to think that despite the high payoff he or she realized, he or she could not "beat" the other and earn more.

Throughout the experiments reported in this research, about 40 to 60 percent of the participants who expected a competitive opponent engaged in strategic misrepresentation with recourse to exaggeration. As hardly anyone gave accurate information, it is obvious that many participants have engaged in misrepresentation without recourse to exaggeration. It remains a question for further research to investigate if there are differences between the people who strategically misrepresent with or without recourse to exaggeration.

One characteristic which potentially could differentiate between those two groups is Machiavellianism. Misrepresentation with recourse to exaggeration aims at influencing the opponent's choice – it could be that high Machs, being the better social performers, are more attracted to it. Misrepresentation without recourse to exaggeration, however, is not aimed at influencing the other's choice. Low Machs are less manipulative than high Machs, and maybe they are satisfied with this strategy which does not attempt to influence the other's behavior.

When people apply a strategy such as misleading a competitive opponent, do they conceive of it as being a pure exercise in "gamesmanship?" Do they expect to get away with it? When people apply similar strategies, how do they try and enhance their chances of success? Do they try and enhance their credibility by making their deceptive messages as credible as possible? Do they supplement their deceptive messages with verbal or other messages signaling cooperative intentions? Influencing the opponent's knowledge of the situation is one thing, influencing his or her impression of one's credibility as a way to prepare the ground for misleading him or her is a different story.
Behavior Towards a Cooperative Opponent

The present results suggested that people are quite honest towards opponents they perceive as cooperative. This is in line with findings from social dilemma research, which demonstrate that cooperation is often reciprocated (e.g., Fehr, Fischbacher, & Gächter, 2002; Nemeth, 1970; Parks & Rumble, 2001) and suggest that the behavior of the participants in the present series of experiments is guided by motives such as enlightened self-interest (Rubin, 1989) or social norms of reciprocity and fairness. This finding is interesting, because it refutes the potential criticism that participants merely engaged in gamesmanship. If participants were simply motivated to try and achieve the maximal number of points, then lying and deception should have been observed with a cooperative opponent as well as with a competitive one. Misleading and exploiting a cooperative opponent is an easy thing to do in the Information Provision Game. For example, one could suggest that the other's gains are own losses, like getting -6 where the other gets 6, -3 where the other gets 3, and so forth. A cooperative other should be expected to refuse own gains at the cost of the other party. Hence he or she might choose the seemingly fair option which, from his or her point of view, would involve no gains, but also no losses to both players. In fact, this decision would yield the maximum number of points for the participant.

Motivations Underlying Strategic Misrepresentation

The present results suggest that misleading a competitive opponent is motivated by fear, greed, and maybe also by punitive sentiment. Fear and greed influenced the provision of accurate and inaccurate information differentially. Future research could investigate whether, as these findings were interpreted in Chapter 3, fear of being exploited does indeed activate an avoidance tendency, whereas greed activates an approach tendency.

The role of punitive sentiment in lying and deception merits further investigation, as well. Prior research has shown that punitive sentiments may be especially strong in reaction to the detection of an competitive act – the study by Boles et al. (2000), for example, showed that when deception was revealed, people tended to punish the other and engage in retribution, even when this was costly to themselves. In the present studies, however, the fictitious opponent could not
possibly commit anything unfair by virtue of the fact that the person behind the role is less than real. Punitive sentiment, therefore, was only driven by the expectation that the opponent has a competitive orientation. It stands to reason that punitive sentiments will be a stronger motive as a response to competitive behavior rather than in expectation of competitive behavior.

We reasoned that people do not lie towards cooperative others, because expecting a cooperative other set them into a cooperative mind-set. But what happens if the other does not behave cooperatively in spite of expectations? Is punitive sentiment going to become an even stronger motive in subsequent interaction in that case?

Is the Behavior Conscious or Schematic?

Another interesting question is whether the behavior people exhibited in the Information Provision Game is an automatic schema-based response or a strategic, conscious behavior that requires cognitive effort. The present data cannot illuminate the cognitive processes behind the participants' behavior. Having observed plenty of participants play the Information Provision Game, I would assume that it is both: First, facing a cooperative or a competitive other activates either a schema of being open and honest, or a schema of being cautious, and, maybe, disposed to engaging in lying and deception. Second, this cooperative or competitive schema leads to a cognitive process of designing a message.

Designing an honest message to be sent to a cooperative other is relatively easy, and, consequently, the decision to be honest towards a cooperative other is usually made quickly. I doubt whether participants try to figure out if honesty will pay off in the long run, and what the exact decision of a cooperative other will be, provided they give accurate or misleading information. The decision how to design a misleading message meant for a competitive other, however, seems to require some cognitive effort. It was quite often the case that participants with a competitive opponent entered six question marks into their payoff table, reconsidered, and changed their message into a deceptive one. Frequently, they "improved" their deceptive message before sending it. Future research could address the cognitive aspects of giving truthful versus deceptive information. The most important question for follow-up research, however, in my opinion, is as follows:
Does it Work?

The present research is proof positive that people take their expectations about their counterpart's social motivation into consideration when deciding whether to be open and honest, or to strategically mislead the opponent. Furthermore, it demonstrated that individuals mislead competitive others in a strategic and calculated way. However, it does not address the question whether this behavior is useful — in other words, whether it works. How does an opponent react to the information he or she receives, and will the misleader ever be successful with the strategy he or she applied? And if yes, under what circumstances will the opponent believe the message to be genuine and reliable?

One aspect we did explore in any of the experiments is whether trying to mislead a competitive other is effective. Pretending opposed interests could be counterproductive as well, for example, when the opponent is suspicious and does not believe the information he or she gets. Future research could therefore investigate how cooperatively and competitively motivated individuals actually react to the information participants usually provide to individuals they expect to be cooperatively or competitively motivated, thereby exploring whether the way in which participants in the Information Provision Game provide their counterpart with information is indeed productive or counterproductive.

Under what circumstances do competitive others believe the misleading information? Which situational aspects or characteristics of the sender or the message lead to success in misleading? Do senders try and enhance the credibility of the message, and how do they do this? Do they signal cooperative incentives and try to build trust, in order for their misrepresentation to appear credible?

Participants who face a competitive opponent have little to lose: If they are open and honest, the competitive other will exploit them. If they try and mislead him or her, he or she will either not believe the lie, or believe it. The former case still means exploitation. In the latter case, however, if the opponent falls for the lie, the liar may not only be spared from exploitation, but also get an excellent outcome. Hence, trying to mislead the opponent seems to be the rational choice. However, trying to mislead others involves risks — most prominently, the risk that the lie will be detected. Under what circumstances do people take that risk? Do they take measure do get away with the attempt to lie? An example could be sending
ambiguous messages which are aimed at misleading the other, but could always be explained by some misunderstanding, should the other becomes suspicious. Future research could also compare the potential benefits of strategic misrepresentation with the complications that arise when one's expectation about the counterparts motivation are incorrect.

**Concluding Remarks**

Unlike most previous research on lying and deception that mainly focused on people's ability to lie convincingly or to detect other people's lies, this research investigated the motivational bases for strategic misrepresentation and deception. Building on interdependence theory (Kelley & Thibaut, 1978; Rusbult & Van Lange, 1996) and goal expectation theory (Pruitt & Kimmel, 1977), I showed that people are less honest and engage in more deception to someone who they believe to be competitive rather than cooperative, and that this effect is stronger for individuals with a pro-social rather than a selfish orientation. People are highly strategic in misleading a competitive opponent, and this behavior is motivated by greed, fear of exploitation, and perhaps also by punitive sentiments.

People are aware of the downsides of lying and deception – as soon as other people merely observe the individual's actions, concern with one's reputation leads the individual to be more honest and less deceitful. This finding extends our knowledge of impression management in negotiation, also because the effects of being observed were stronger for people who were high rather than low self-monitors (Lennox & Wolfe, 1984; Snyder, 1974).

Although giving practical advice was not our goal, the theoretical insights offered by the present research suggest that negotiators who adopt a "tough" stance and project a competitive image are most likely to "create" an opponent who, through clever strategic misrepresentation, hurts rather than helps them. Projecting a competitive image might work better when one's counterpart is concerned with his or her reputation, but it is probably not advisable to use this approach when dealing with pro-socially motivated counterparts. It may be better and easier to avoid projecting a competitive image and, instead, approach one's counterpart with cautious cooperativeness.