Incomplete Information in Social Interactions

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Summary

In everyday life people face numerous situations in which self-interest and other people's interest are in conflict. In these situations people can either pursue goals that benefit the self alone (i.e., noncooperation), or go beyond self-interest to benefit another person or collective (i.e., cooperation). The basic lesson from previous research—based on thousands of experiments and evolutionary simulations—is quite straightforward: People respond cooperation with cooperation and noncooperation with noncooperation. Human cooperation is conditional to the interaction partner's past behavior.

The current dissertation is rooted in the idea that conditional cooperation is not always directly applicable, because people can have only incomplete information about their partner's previous cooperation. Before conditional cooperation can be applied the partner's cooperation must often be inferred from information that is less than conclusive—information that allow multiple interpretations. The current dissertation examines the ways in which people systematically color their inferences about other people's cooperation, and how these biased inferences influence own cooperation in response. The first empirical chapter (Chapter 2) examines three social motives that influence social behavior: Self-interest, altruism, and egalitarianism. The results reveal that in comparison to the extent to which people display these motives in their own social behavior, people expect that egalitarianism has a smaller impact on other people's social behavior. Hence, Chapter 2 indicates that egalitarianism is an important motive that shapes people's own behavior, but it is notably underestimated in the imagined behavior of others.

The second empirical chapter (Chapter 3) examines interpretations that people make on other people's overt behaviors. The results reveal that when people are given only incomplete information about their partner's behavior, they tend to fill in the missing pieces of information with self-interest. The results also reveal that while people indeed exhibit self-interest in their behavior, the estimated level of self-interest from others is greater. Hence, Chapter 3 indicates that people tend to overestimate the role of self-interest in other people's overt behavior.

The third empirical chapter (Chapter 4) examines the influence of incomplete information on cooperation in dyadic interactions. The results reveal that incompleteness of information undermines both expectations about another person's cooperation as well as one's own cooperation. Hence, Chapter 4 indicates that the belief in self-interest serves to fill in the blanks in information, which undermines both expectations of other's cooperation as well as one's own cooperative behavior.

The fourth empirical chapter (Chapter 5) examines interactions with partners who differ in their level of generosity versus stinginess. The results reveal that the detrimental effects of incomplete information are more pronounced for generous than

stingy partners. The results also reveal that under incompleteness of information, people judge the partner as less benign—the effect that is more pronounced for generous partners. Hence, Chapter 5 indicates that the more generosity one seeks to communicate, the more incompleteness of information undermines cooperation and perceptions regarding the partner's benign intentions.

Overall, the current dissertation introduces an important boundary condition for human cooperation. When people have complete information about their partner's behavior, cooperation can be quite easily attained by conditional strategies. By contrast, when people have only incomplete information about their partner's behavior, people tend to fill in the missing pieces of information with self-interest, and respond more self-interestingly in return. This is a challenge to human cooperation, because the belief in self-interest may become a self-fulfilling prophecy, as people tend to respond in mind (i.e., based on what they think others did) rather than respond in kind (i.e., based on what others actually did). This may explain why noncooperation sometimes occurs even when partners would prefer and benefit from mutual cooperation.