Mind-reading in strategic interaction: The impact of perceived similarity on projection and stereotyping

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ABSTRACT

In social dilemmas, negotiations, and other forms of strategic interaction, mind-reading—intuiting another party's preferences and intentions—has an important impact on an actor's own behavior. In this paper, we present a model of how perceivers shift between social projection (using one's own mental states to intuit a counterpart's mental states) and stereotyping (using general assumptions about a group to intuit a counterpart's mental states). Study 1 extends prior work on perceptual dilemmas in arms races, examining Americans' perceptions of Chinese attitudes toward military escalation. Study 2 adapts a prisoner's dilemma, pairing participants with outgroup targets. Study 3 employs an ultimatum game, asking male and female participants to make judgments about opposite sex partners. Study 4 manipulates perceived similarity as well as counterpart stereotype in a principal–agent context. Across the studies, we find evidence for our central prediction: higher levels of perceived similarity are associated with increased projection and reduced stereotyping.

"[The Kaiser] said France never ceased provoking him. As a result of [the French] attitude, war with France was not only inevitable; it was near at hand. The French press treated Germany with malice, the Three-Year Law was a deliberately hostile act, and all France was moved by an unquenchable thirst for *revanche*. Trying to stem the flow, [Belgium's King] Albert said he knew the French better; he visited France every year, and he could assure the Kaiser they were not aggressive but sincerely desired peace. In vain; the Kaiser kept insisting war was inevitable." *The Guns of August*, Barbara W. Tuchman

Introduction

Some of the costliest conflicts in human history—including the millions of deaths in World War I and the billions of dollars and rubles spent in the Cold War—were fueled by assumptions, such as the Kaiser's, about a potential adversary's desires and intentions. Whether in the run-up to armed conflict between nations or one-on-one business negotiation, strategic interaction revolves around each side's assumptions, right or wrong, about what the other side

is thinking: what a rival believes, what a competitor wants, what an agent intends to do. These assumptions about others matter because they impact an actor's own choice of behavior. Countries in conflict arm or disarm based on the intentions they ascribe to their potential enemies. Negotiators make openings, offer counter-proposals, and walk away from the table based on their reading of the other party's mind.

While the importance of such "mind-reading"[1] in strategic interaction is increasingly recognized (e.g., Epley, Caruso, & Bazerman, 2006; McCabe, Rigdon, & Smith, 2003), models diverge on how it unfolds. Some invoke social projection and perspective-taking, portraying people as generally assuming that others share their own intentions, or the intentions they themselves would have if they were in their partner's shoes. Other accounts suggest that people often overlook commonalities and rely instead on exaggerated or baseless stereotypes of social groups (e.g., bankers are ruthless, red-heads are temperamental). Still other models imply that most people assume their counterparts are, by and large, rational and

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[1] Our quotation marks here clarify that we use this term metaphorically. We omit quotation marks for the remainder of the paper, following other scholars' use of the term *mind-reading* and its variants to signify the everyday process of drawing inferences about others' mental states, including preferences, motives, and intentions (e.g., Ames & Mason, in press; Apperly, 2010; Ickes, 2003; Singer & Fehr, 2005). Note that mind-reading does not necessarily imply accurate judgments, just inferences about what others think, want, and feel.

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self-interested, which is a global stereotype of a sort—a folk rational-choice theory. Each of these approaches likely captures part of the truth, but these accounts remain relatively unconnected and little evidence has been offered to account for how perceivers might move between these inferential strategies in strategic contexts. When and why might a perceiver turn to projection in one case, yet stereotype in another? If scholars cannot answer this question, their models for predicting and explaining what happens in strategic interaction will remain incomplete.

In this paper, we take steps toward an integrated model of mental state inferences in strategic judgment. Our goal is to illuminate how perceivers use social projection and stereotyping to attempt to read counterparts' minds—and to harness individual differences, such as prior expectations about similarity, and situational factors, such as new information about similarity or feedback about the accuracy of their predictions, to predict how perceivers move between these routes. Our findings provide a reconciliation between seemingly-divergent past results and yield a more complete explanation for how mind-reading unfolds in strategic contexts.

Background

We begin by clarifying what we mean by "mind-reading in strategic interaction." By *strategic interaction*, we mean those episodes in which individuals or groups coordinate their own behavior with others' behavior in order to obtain outcomes that depend on both parties' actions, especially in cases of perceived threats, competition, or scarce resources. This includes a wide range of social dilemma and game situations (see, e.g., Camerer, 2003; Komorita & Parks, 1994) and also applies to interpersonal and intergroup negotiations and conflict as well as principal–agent relations (Eisenhardt, 1989). In this context, *mind-reading* refers to inferences, right or wrong, that a party makes about another party's beliefs, desires, or intentions (e.g., "She wants what's best for us both," "He doesn't care about being fair"). Such mental states are ascribed not only to individuals, but often to groups as well (e.g., "They want to take advantage of us"). Mind-reading is distinct from, though surely related to, other kinds of judgments that may occur in a strategic context, including the ascription of general dispositions to another party (e.g., "She's an aggressive person") and the prediction of others' behaviors (e.g., "He will lie to us").

While some debate remains, many scholars believe that inferences about others' mental states are an important part of strategic interaction and a precursor to strategic behavior (e.g., McCabe et al., 2003). Recent work gauging neural activity seems consistent with the notion that mentalizing others is a natural and perhaps inevitable component of strategic interaction (e.g., Bhatt & Camerer, 2005; Singer & Fehr, 2005). Moreover, scholars in various traditions have suggested that *misreading* minds is a common component of strategic blunders (e.g., Pinkley, Griffith, & Northcraft, 1995; Plous, 1993). We proceed here with the assumption that mind-reading matters—that an important part of strategic interaction involves minds attempting to model other minds. We focus our current efforts on trying to explain how this process unfolds in strategic contexts.

How do people read minds?

Reading minds in strategic contexts is a special case of reading minds in general. Numerous accounts have been offered across a variety of disciplines for how everyday mind-reading emerges (e.g., Apperly, 2010; Malle & Hodges, 2005). We briefly review a relevant set of these accounts in the sections that follow.

Evidence

Perceivers are adept at inferring an actor's intentions and goals on the basis of evidence ranging from simple body movements (e.g., Meltzoff & Brooks, 2001) to facial expressions (e.g., Ames & Johar, 2009) to more elaborate sequences of behavior that converge on desired outcomes (e.g., Heider, 1958; Malle, 1999). In the domain of social dilemmas, counterpart behavior can undoubtedly serve as evidence of motives. Kelley and Stahelski (1970b), for instance, showed that dilemma players inferred counterpart motives from initial moves (see also Maki & McClintock, 1983). Other scholars have likewise argued that early choices in sequential games can have an intention-signaling effect on subsequent subgames (e.g., Kohlberg & Mertens, 1986; McCabe et al., 2003). Along with observed action, perceivers may rely on other varieties of evidence in reading counterparts' minds, including information about the target's personality and character (e.g., De Bruin & Van Lange, 1999; Van Lange & Kuhlman, 1990) and communication offered by the target (e.g., Komorita & Parks, 1994; Kopelman, Weber, & Messick, 2002; Messick & Brewer, 1983; Thompson, 1991).

There is little doubt that in strategic interaction most parties scrutinize others' behavior carefully and use whatever pieces of evidence they can acquire that seem to signal (validly or not) others' intentions. Yet in many cases, especially in the early stages of an interaction, evidence is slim. This does not halt the wheels of mind-reading, however; in such cases, perceivers arguably reach for a different set of inferential tools.

Projection and perspective-taking

More than half a century of research has documented people's willingness to assume—often to an unwarranted degree—that others share their own desires and intentions (e.g., Katz & Allport, 1931; Ross, Greene, & House, 1977; see Krueger, 2000 for a review). In the domain of strategic interaction, Kelley and Stahelski (1970c) showed that competitive players in social dilemmas tended to project their competitive goals onto others, regardless of whether those partners described themselves as cooperative or competitive. Van Lange (1992) extended this work, finding that both cooperative and competitive players projected. More recently, Krueger and Acevedo (2005) have invoked social projection to argue that many players in dilemmas expect reciprocity; they have also shown that reciprocity expectations can have a substantial effect on behavioral choices (Acevedo & Krueger, 2005). In research on negotiations, Bottom and Paese (1997) demonstrated that in the absence of stereotypic or individuating information, negotiators tend to assume that other parties shared their own preferences, an inference leading to "fixed pie" assumptions and suboptimal settlements.

A more effortful and elaborate version of this transposition from self to other is some form of perspective-taking in which a person imagines him or herself in another person's situation, intuiting what the other party would think, want, or feel in that circumstance (e.g., Davis, Conklin, Smith, & Luce, 1996; Van Boven, Loewenstein, & Dunning, 2005). Epley et al. (2006) found that perspective-taking shaped strategic behavior: when individuals considered their counterpart's perspective in a commons dilemma, they became *more* competitive, having imagined that their partners might act selfishly to pursue their own interests. Galinsky, Maddux, Gilin, and White (2008) have linked perspective-taking to negotiation behavior and outcomes, showing that perspective-takers are better able to discover hidden agreements and to claim value. In sum, another route to inferring the mental states of a strategic counterpart is to use the self, through projection or perspective taking, as a template for intuiting others' desires, preferences, and intentions.