To be or not to be trusted: The influence of media richness on defection and deception

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Abstract

When business transactions take place between strangers, individuals rely on the cues during communication to determine whether they can trust others' intentions. How that process occurs in the context of computer-mediated, video-mediated, and face-to-face interactions is still somewhat unknown. We examine how media richness influences both affective-based and cognitive-based trust in the context of two studies with two different social dilemma scenarios. Further, we explore how these two types of trust influence not only non-cooperative behavior (defection) but also lying (deception). Results from the first study suggest cognitive-based trust mediates the relationship between media richness and defection, while results from both studies suggest that affective-based trust mediates the relationship between media richness and deception. Video-mediated communication solves some, but not all, of the problems inherent when interacting via communication technology.
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Advances in information systems and communication technologies have made technology-mediated interactions a common, convenient, and important feature of the organizational landscape (e.g., Canney Davidson & Ward, 1999; Joy-Matthews & Gladstone, 2000; Townsend, DeMarie, & Hendrickson, 1996). Using communication technology is a fundamental requirement to transact business. However, many business transactions are characterized by mixed motive considerations, having both cooperative and competitive components. Any time business partners, co-workers, customers and clients share information or interact, there is risk—risk that information given will be used against the provider,

and risk that the time invested will be wasted if the effort is not reciprocated by the other party. Every day these interactions occur via technology-mediated means (Baltes, Dickson, Sherman, Bauer, & LaGanke, 2002; Hinds & Bailey, 2003; Putnam, 2001), yet it is generally unknown how that reliance on technology changes the nature of the interaction and influences the probability of anti-social behavior.

A mixed-motive situation is one in which participants experience a tension between collective and individual interests (e.g., Dawes, 1980; Liebrand, 1984; Pruitt & Kimmel, 1977), and work in organizations almost always represents a mixed-motive situation (Komorita & Lapworth, 1982). Even when employees do not have the opportunity to actively pursue a personal agenda at the organization's expense, they can socially loaf (e.g., Latane, Williams, & Harkins, 1979)—not exert their fair share of cooperative effort—in the hopes of

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harvesting the benefits of organizational membership and group accomplishment without appropriately contributing to the creation of those benefits. As mixed-motive situations in today's organizations undoubtedly involve individuals interacting via technology, understanding how technology-mediated interaction influences choices between collective and individual motives is essential to organizational success. Research suggests that the very characteristics that define technology-mediated interaction, such as depersonalized communication, may also increase uncooperative behavior in mixed-motive situations (e.g., O'Sullivan & Flanagin, 2003).

Here, we focus on two types of anti-social behavior in interpersonal interactions: defection and deception. Defection occurs when cooperation has been agreed to, yet, because of uncertainty in the environment or willingness to take advantage of others, an individual chooses not to cooperate. This is the classic outcome studied in the social dilemma paradigm. Deception, on the other hand, is the willful attempt to mislead others through information that is known to be untrue (Buller & Burgoon, 1996). While anti-social behaviors have been linked to workplace deviance (Robinson & O'Leary-Kelly, 1998), deception in particular is of interest as employees will often have to deceive in order to carry out sabotage or other deviant behaviors. Deception is also of unique interest as it is a deliberate form of miscommunication whose occurrence may be influenced by the communication medium used.

To be sure, considerable past research has explored the impact of computer-mediated vs. face-to-face interaction on the quality of decisions and communication (e.g., Hollingshead & McGrath, 1993; Walther, 1995; Wilson, Strauss, & McEvily, 2006). However, this past work has not explored why computer-mediated, video-mediated, and face-to-face interaction might differentially influence the appearance of uncooperative behaviors in the context of short-term mixed-motive situations. Furthermore, the psychological processes that determine how technology-mediated interaction influences the occurrence of different types of anti-social behaviors are still not well understood. The studies described here compare and contrast how face-to-face, video-mediated, and computer-mediated interaction are likely to influence the occurrence of two types of uncooperative behavior—defection and deception—in mixed-motive situations.

Defection and deception in social dilemmas

Social dilemmas are situations characterized by individuals having a choice between cooperating and competing with others, thus having multiple motives, whereby each choice has certain benefits. Wade-Benzoni, Tenbrunsel, and Bazerman (1996) suggest three properties always present in a social dilemma: (1) the non-cooperative choice is always more beneficial to the actor than a cooperative choice; (2) the non-cooperative choice is always more harmful to others than a cooperative choice; and (3) the aggregate amount of harm done by non-cooperative choices is greater than the benefit to any individual actor. In short, individuals must choose between acting in their own interest and acting in the group's interest, where everyone acting in their own interest leads to collective deficiency (Dawes, 1980; Messick & Brewer, 1983).

The classic social dilemma is illustrated by Hardin's (1968) "tragedy of the commons." In this dilemma, herders must restrict their use of a shared grazing land (the commons) in order for the land to remain viable for everyone to graze. The herders have pooled their resources in order to be able to enjoy a benefit—the commons—that none of them could afford individually. The dilemma here is that it is in the interest of any individual herder to have all other herders restrict their use of the common grazing land while that individual herder does not – an uncooperative behavior called *defection*. If all herders rely on all of the other herders to voluntarily restrict their use of the common while not restricting their own usage, the commons grass becomes overgrazed, everyone's herd dies, and the value of the commons is lost. The dilemma occurs because defecting seems like the rational choice if no one else is defecting, but everyone loses if everyone makes that rational choice and defects.

A second form of clearly uncooperative behavior falls under the general rubric of *deception*. Deception is defined as, "a message knowingly transmitted by a sender to foster a false belief or conclusion by the receiver" (Buller & Burgoon, 1996, p. 205). Deception includes misleading people through gestures, silence, inaction, or disguise, as well as outright lying (Hollingshead, 2000), which is the willful delivery of incorrect information (Ekman, 1985; Lewicki, 1983). While deception is not required for an individual to defect, deception in the service of defection—such as misrepresenting to others one's intentions to cooperate—seems at least a few degrees more uncooperative than being forthright about one's intentions to pursue self interests.

Media richness

There is a vast literature addressing what factors increase or decrease rates of defection in social dilemmas (see for example the review by Kollock, 1998). What is pertinent to this discussion is that when individuals are given the opportunity to communicate, cooperation rates soar (e.g., Orbell & Dawes, 1991; Orbell, van de Kragt, & Dawes, 1988). However, why that happens is