



# **Distributed Deception: An Investigation of the Effectiveness of Deceptive Communication in a Computer-Mediated Environment**

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## **ABSTRACT**

*This research examines the impact of computer-mediated communication, distributed communication, and knowledge of prior baseline behavior on an individual's propensity to make veracity judgments. This study found that more detection confidence can come from knowledge of a person's prior baseline behavior, being proximally located, the type of communication media used, and perceived relational closeness. These factors indirectly lead to less deception detection through more detection confidence and reliance on the truth bias, a fundamental belief in the truthfulness of others, even in a compute-mediated environment.*

*Keywords: computer-mediated communication; deception detection; truth bias*

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## **INTRODUCTION**

Today's firms are relying more on non-traditional communication media such as e-mail, voicemail, and virtual meetings (Burke and Chidambaram, 1999; Guicking, Tandler and Grasse, 2008; Hoffman and Novak, 1996). In a globalized work environment, these types of communication media are important to quality deci-

sion-making (Fjermestad, 2005). However, a question arises as to whether the use of these communication media, together with distributed information sources, may mitigate an individual's ability to detect deception. Deception is a regular part of daily communicative interaction (DePaulo and Kashy, 1998), accounting for 26-33% of daily social interactions (DePaulo, Kashy, Kirkendol, Wyer and Epstein, 1996; Han-

cock, Thom-Santelli and Ritchie, 2004). As computer-mediated communication use continues to spread, the ability to detect deception using lean communication media will be increasingly important in the workplace.

Research in the area of deception detection over distributed media has not been widespread. While individual research streams such as media richness, computer-mediated communication, and deception detection have extensive bodies of literature, the intersection of these streams has scarcely been examined (George and Marett, 2005). For example, deception detection research has focused on techniques such as training to recognize deceptive cues (Feeley and Young, 1998; Ekman and O'Sullivan, 1991), and suspicion arousal (Stiff and Miller, 1986) to increase face-to-face deception detection rates. Face-to-face deceptive cues such as greater pupil dilation, more blinking, decreased response length, more speech errors and hesitations, greater voice pitch, more negative statements, and more irrelevant information (Feeley and Young, 1998) are of limited applicability to deception detection in computer-mediated or distributed environments.

Similarly, the ability to detect deception between communication partners is widely believed to be related to the type of personal relationship that exists between them (Feeley and Young, 1998). Past research in the area of deception detection has mainly focused on individuals who are either strangers or intimate partners (Anderson, Ansfield, and DePaulo, 1997). However, working relationships typified by high levels of familiarity but low levels of intimacy, have been largely ignored. The relationship between partners impacts deception detection rates because of a fundamental assumption that their partner is being

truthful. This fundamental assumption of truthfulness is often referred to as the truth bias (McCornack and Parks, 1986).

The purpose of this study is to investigate the effects of differing contextual factors on deception detection confidence and the relationship between confidence and truth bias. More specifically, this study will contribute to existing IS literature by examining the effects of working relationships, computer-mediated communication, and distributed environments within the context of deception detection. The next section of the paper presents the theoretical background for the study, including a research model and hypotheses. This is followed by a discussion of the research method, findings, and implications for research and practice.

## **THEORETICAL BACKGROUND**

Research surrounding deception detection has focused on detection skills of observers (Brandt, Miller, and Hocking, 1982), conversational task demands (Burgoon and Newton, 1991), honesty judgments (Fiedler and Walka, 1993), the influence of relational closeness (Anderson et al., 1997), environmental influence (Storms, 1973), observer ability to detect deception (Buller, Strzyzewski, and Hunsaker, 1991), and the impact of suspicion on detection accuracy (Buller, Strzyzewski, and Comstock, 1991). Findings have shown that individuals have significant difficulty discerning truth from deception. Deception detection rates have been shown to range from 55% to 60% (Feeley and Young, 1998). However, other studies have found that deception detection rates may be as low as 35-40%, while truth detection rates have ranged from 70-80% (Levine, McCornack, and Park, 1998). It is important to note that deception detection

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