Interpersonal Coordination in Computer-Mediated Communication

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INTRODUCTION

This article focuses on the nature and consequences of interpersonal coordination in face-to-face (FTF) and computer-mediated contexts. Interpersonal coordination refers to the tendency for individuals to implicitly synchronize their behavioral and linguistic communication patterns during social interactions. Research has found that individuals will unconsciously coordinate the timing and pace of their communication patterns, as well as their verbal and nonverbal behaviors when communicating (Chartrand & Lakin, 2013). Interpersonal coordination has been shown to impact verbal communication (Giles & Ogay, 2006; McGarva & Warner, 2003), nonverbal behaviors (Chartrand & Lakin, 2013), emotional responses (Kelly & Barsade, 2001), and computer-mediated interactions (Campbell, Cothren, & Burg, 2010). Groups that demonstrate higher levels of interpersonal coordination are characterized by increased cohesion, liking, and enhanced task performance compared to groups with lower levels of coordination (Blount & Janicik, 2002; McGrath & Kelly, 1986; van Baaren, Horgan, Chartrand, & Dijkmans, 2004).

BACKGROUND

Interpersonal coordination is an overlooked yet fundamental component of human social interaction (Bernieri, Davis, Rosenthal, & Knee, 1994). Bernieri et al. (1994) suggest that human communication is characterized by two forms of interpersonal coordination; interaction synchrony which is focused on the pace and rhythm of communication (e.g. mutual entrainment), and behavioral matching/mimicry which focuses on the co-occurrence or imitation of gross and fine motor movements (e.g. the chameleon effect). These two broad categories account for the majority of ways in which individuals engage in interpersonal coordination during social interactions. One important distinction between the two coordination types is the increased importance that temporal factors play in influencing interpersonal synchronization compared to behavioral mimicry. With mimicry, the matched behaviors occur at identical or closely related time frames; whereas with interactional synchronization, the timing of behaviors varies depending on situational, structural, and group composition factors. This article will first discuss recent theory and research on interpersonal coordination in traditional face-to-face (FTF) contexts, and then we will shift our focus to the emergence and influence of synchronization and mimicry during computer-mediated interactions.

One type of interactional synchronization that has received a great deal of attention is mutual entrainment, which refers to the modification of endogenous temporal rhythms by an external pacer. For instance, the circadian rhythm that dictates our body's synchronization with the 24-hour day/night cycle would be a biological example of entrainment. In terms of synchronization, mutual entrainment is evident when individuals modify their linguistic patterns (e.g. response frequency, rate, and pace) to match those of a partner, or to accommodate external factors (e.g. temporal constraints) (McGarva & Warner, 2003; McGrath & Kelly, 1983). For example, during typical dyadic interactions, when one person has finished speaking, the second individual is expected to deliver a verbal or nonverbal response within a certain implicitly understood time frame, which will then be reciprocated by the original speaker. This verbal synchronization or rhythm is unique for each social situation and is contingent upon the communicators' relationships and their environmental constraints. A failure or an inability to synchronize during social interactions can result in miscommunication, frustration, reduced cohesion, ineffective task performance, and poorer

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decision-making. On the other hand, researchers have demonstrated that effective interpersonal synchronization serves an adaptive function in groups leading to more positive intra-group affect, cohesion, confidence, trust, and enhanced performance on tasks (Blount & Janicik, 2002; Kelly & Barsade, 2001; McGrath & Kelly, 1986; van Baaren et al., 2004).

Behavioral matching or mimicry is the second category of interpersonal coordination which focuses on the unconscious and unintentional imitation of physical or verbal behaviors during social exchanges (Bernieri et al., 1994). Chartrand and Bargh (1999) found that people have a tendency to engage in unconscious mimicry of each other's nonverbal behaviors (e.g. foot tapping, yawning, body posture, etc.) during dyadic interactions, which they dubbed the chameleon effect. In their initial investigation, the researchers demonstrated that changes in a confederate's subtle nonverbal behavior (e.g. face touching or foot shaking) lead to corresponding changes in participants' own movements. Furthermore, this behavioral matching occurred without the participants' conscious perception the confederates' movements. One explanation for the chameleon effect lies in theory of the perception-behavior link; whereby simply perceiving a behavior (conscious or unconscious), activates corresponding behavioral associations in memory and thereby increases the likelihood of expressing the observed behavior. Researchers have found numerous instances of behavioral mimicry with facial expressions (Hsee, Hatfield, Carlson, & Chemtob, 1990), mood and emotions (Barsade, 2002), verbal behaviors (Giles & Ogay, 2006), as well as during computer-mediated interactions (Bailenson & Yee, 2005), which will be explored in the following section.

Similar to the consequences of interaction synchrony, behavioral matching also results in increased liking, empathy, and cohesion among communicators (Lakin, Jefferis, Cheng, & Chartrand, 2003). For instance, Chartrand and Bargh (1999) found that participants whose physical movements were imitated by a confederate reported liking the confederate more, and felt that the interactions went more smoothly than non-mimicked participants. In field tests of behavioral imitation, van Baaren, Holland, Steenaert, & van Knippenberg (2003) reported prosocial consequences as a result of behavioral mimicry during social interactions. The researchers found that waiters received larger tips when they mimicked the verbal behaviors of their customers. Studies indicated that not only does mimicry lead to increased prosocial behavior towards the mimicker, but it also increases global prosocial behaviors as well (van Baaren, Holland, Kawakami, & van Knippenberg, 2004). van Baaren et al. (2004) found that participants whose body posture was mimicked by an experimenter were twice as likely to help a second researcher when s/he surreptitiously dropped pens on floor compared to those whose body posture was not mimicked by the experimenter (study 2).

INTERPERSONAL COORDINATION IN COMPUTER-MEDIATED COMMUNICATION

Issues, Controversies, Problems

Although interpersonal coordination has been well documented in traditional face-to-face communication, there has been little research on this fundamental component of social interaction in the digital realm. Since FTF interaction is frequently augmented and in some ways entirely supplanted by the rapid emergence of computer-mediated communication (CMC) (e.g. text messages, email, Skype, etc.), it is prudent to examine to what extent interpersonal coordination occurs during CMC, and what are the social consequences of synchronization and non-synchronization during digital communication?

Early research in the field of computer-mediated communication suggested that the lack of social presence and reduced social context cues, which serve to regulate social behaviors during FTF communication, would attenuate social influence factors during CMC, leading to deregulated and anti-normative exchanges (Kiesler & Sproull, 1992). Alternatively, the social identity model of deindividuation effects (SIDE) suggests that the enhanced anonymity in some aspects of CMC (e.g. online chat rooms) will actually serve to strengthen group identification and lead to increased adherence to social cues and norms (Reicher, Spears, & Postmes, 1995). Similarly, Walther's social information processing (SIP) model posits that since CMC is a novel form of interaction, and one that is inherently slower than FTF communication, that it takes users more time to establish normative standards of communication. Therefore, if users are given sufficient time, they

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