

The sound of (in)sincerity

Karyn Fish^{a,1}, Kathrin Rothermich^{a,b,*}, Marc D. Pell^{a,1}

^a McGill University, School of Communication Sciences and Disorders, Montreal, QC, Canada

^b East Carolina University, Department of Communication Science and Disorders, Greenville, NC, USA

Received 10 February 2017; received in revised form 6 October 2017; accepted 7 October 2017



Abstract

In social life, humans do not always communicate their sincere feelings, and speakers often tell 'prosocial lies' to prevent others from being hurt by negative truths. Data illuminating how a speaker's voice carries sincere or insincere attitudes in speech, and how social context shapes the expression and perception of (in)sincere utterances, are scarce. Here, we studied the communication of social, other-oriented lies occurring in short dialogues. We recorded paired questions (*So, what do you think of my new hairdo?*) and responses (*I think it looks really amazing!*) using a paradigm that elicited compliments which reflected the true positive opinion of the speaker (sincere) or were meant to hide their negative opinion (insincere/prosocial lie). These Question–Response pairs were then presented to 30 listeners, who rated the sincerity of the person uttering the compliment on a 5-point scale. Results showed that participants could successfully differentiate sincere compliments from prosocial lies based largely on vocal speech cues. Moreover, sincerity impressions were biased by how the preceding question was phrased (confident or uncertain). Acoustic analyses on a subset of utterances that promoted strong impressions of sincerity versus insincerity revealed that compliments perceived as being sincere were spoken faster and began with a higher pitch than those that sounded insincere, while compliments rated as insincere tended to get louder as the utterance unfolded. These data supply new evidence of the importance of vocal cues in evaluating sincerity, while emphasizing that motivations of both the speaker and hearer contribute to impressions of speaker sincerity.

© 2017 Elsevier B.V. All rights reserved.

Keywords: Speech processing; White lies; Compliments; Sincerity; Prosody; Prosocial lies

1. The sound of (in)sincerity

Natural language abounds with indirectness, assumptions, and implicature; listeners assign meaning to utterances without guarantee that their interpretation is the one intended by the speaker (Green, 1996; Pexman and Zvaigzne, 2004). During interpersonal communication, both verbal and nonverbal cues supply important information about speakers' emotions, attitudes, beliefs, and cognitive states that reveal their intentions (Arndt and Janney, 1991; Wilson and Wharton, 2006). Of special interest here are vocal (*prosodic*) cues in speech, such as dynamic changes in utterance pitch, loudness, tempo, pauses, and voice quality (Cheang and Pell, 2008). These cues are critical for deriving the speaker's underlying affective and cognitive disposition in the context of a verbal message, and thus, for interpreting non-literal meanings (Cheang and Pell, 2009; Jiang and Pell, 2015; Pell et al., 2011).

* Corresponding author at: Communication Sciences and Disorders, College of Allied Health Sciences, East Carolina University, 3310 AD Health Sciences Bldg, 600 Moye Blvd., MD 668, Greenville, NC 27858, USA.

E-mail address: rothermichk17@ecu.edu (K. Rothermich).

¹ McGill University, School of Communication Sciences and Disorders, 2001 McGill College, 8th Floor, Montreal, QC H3A 1G1, Canada.

The ways that vocal cues are used to communicate (*in*)sincerity in speech have received little empirical attention to date. When an utterance's content (i.e., the literal semantic meaning of the utterance) matches other cues that mark the speaker's true beliefs or attitudes, it may be described as *sincere*, whereas *insincere* utterances diverge somehow from the speaker's true evaluation of a situation. In many social interactions, speakers' prosody provides critical insight into the reality of their thoughts and feelings to the listener—for example, revealing their sincere or insincere intent when giving a compliment (*I think you look really amazing!*). In this study, we investigate the role of speech prosody in judging that a speaker giving a compliment is being sincere or insincere, a context in which insincerity is associated with the telling of 'prosocial lies'. Although there are various ways for speakers to be insincere in daily communication (e.g., sarcasm, teasing, bluffing), a focus on prosocial lies can begin to illuminate the psycho-acoustic, perceptual, and social dimensions of (in)sincere forms of communication.

Little research has focused specifically on the communication of sincerity, but there is a rich adjacent literature on deception and the perception of lies, a form of insincere speech in which speakers attempt to conceal their true attitudes or beliefs when uttering a remark. Lies have been characterized as fact- or feeling-based, and can be self- or other-oriented (DePaulo et al., 1996). While many self-serving lies are harmful and told for one's own benefit ("high-stakes"), *prosocial lies* about feelings, preferences, attitudes, and opinions are designed to reap psychological rewards, such as closeness and respect, and to avoid hurt feelings (DePaulo et al., 1996, 2003). They also can prevent harm to another's positive self-image or *face* (Brown and Levinson, 1978). Expressing insincere opinions in the form of prosocial lies has been described as a form of communicative competence or "social lubricant" (Bryant, 2008; Saxe, 1991). Indeed, these insincere remarks are perceived as so innocuous that they are often grouped with compliments, courtesies (Ekman and O'Sullivan, 2006), and politeness behaviour (e.g., Talwar et al., 2007).

In the literature on deception (unrestricted to prosocial lies), meta-analyses provide clues about the nonverbal indicators of insincerity during social interactions (DePaulo et al., 2003; Sporer and Schwandt, 2006; Zuckerman et al., 1979). Despite speakers' attempts to hide that they are lying, auditory and visual cues that accompany the production of prosocial lies, such as changes in voice pitch or facial expressions, tend to "leak out" (Buller and Aune, 1987; Villar et al., 2013). Focusing on the auditory modality, lies seem to be associated with increases in vocal pitch, increased speech disturbances (filled or unfilled pauses), and a delayed response latency. At the same time, lies tend to have a shorter message duration (Sporer and Schwandt, 2006) and slower speech rate when compared to truthful (*sincere*) utterances (Vrij et al., 1996). Elevated pitch when lying has been associated with tentativeness, revealing that the speaker is uncertain about the utterance's content (Holmes, 1984; Jiang and Pell, 2017).

However, there seems to be a poor correspondence between the cues shown by empirical work to actually signal deception and those that are widely perceived to be associated with lying by the general public (Anderson et al., 1999; Vrij and Semin, 1996). For example, based on cross-cultural investigations, it is commonly believed that "avoidance of eye contact" is the predominant cue to deception, when in reality, eye contact (or lack thereof) does not appear to provide a true indication of lying (Anderson et al., 1999; Bond et al., 1990; Cheng and Broadhurst, 2005; Vrij and Semin, 1996). One study comparing the beliefs held by prisoners, law-enforcement officials (professional lie detectors), and college students (with no experience or training) reported that students and professional lie detectors hold similar misconceptions regarding the indicators of deception—for example, both groups falsely believed that liars shift body position and avoid gaze more than truth-tellers. Only prisoners, whose daily survival might depend upon lie perpetration and detection, showed significantly higher accuracy in their beliefs regarding the cues to deception (Vrij and Semin, 1996).

Explicit lie detection may be poor because many individuals overlook nonverbal/paralinguistic cues when judging lies (Ekman et al., 1991), instead over-relying on verbal cues, which tend to be easier for speakers to control than nonverbal cues in the context of deception (DePaulo et al., 1982; O'Sullivan et al., 1985). Furthermore, individual differences can influence the perception of lies, such as speaker personality (Riggio et al., 1987), culture (Bond et al., 1990), and behaviour (O'Sullivan, 2003), and listener social/emotional intelligence (Riggio et al., 1987). These and other factors could alter sensitivity to cues that mark deception in many social contexts (O'Sullivan, 2005), and by extension, (in)sincerity. It has also been proposed that there is a general "truth bias" in interpersonal communication, with truthful statements being correctly identified as true more often than lies are recognized as false (McCornack and Parks, 1986).

Other contextual factors seem to guide how humans communicate and perceive (in)sincerity from speech. For example, the proportion of self- versus other-oriented lies told between two people is known to be influenced by the sex and the level of intimacy of interlocutors. Intimate relationships are associated with increased other-oriented (protective) lies, whereas people tell more self-centred lies to strangers (DePaulo and Kashy, 1998). Research shows that women are more frequently the *targets* of other-oriented lies, such as insincere compliments, especially in female-female dyads (DePaulo et al., 1996; Camden et al., 1984). Uttering an insincere compliment may serve to reduce social distance and strengthen interpersonal solidarity for females (Holmes, 1988; Wolfson, 1981), and recent evidence shows that prosocial lying can increase trust when compared to truth-telling (Levine and Schweitzer, 2015). In light of these ideas, the context of soliciting, uttering, and interpreting sincere versus insincere compliments involving two female friends was of keen interest in our study.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات