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Children's knowledge of deceptive gaze cues and its relation to their actual lying behavior

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ABSTRACT

Eye gaze plays a pivotal role during communication. When interacting deceptively, it is commonly believed that the deceiver will break eye contact and look downward. We examined whether children's gaze behavior when lying is consistent with this belief. In our study, 7- to 15-year-olds and adults answered questions truthfully (*Truth* questions) or untruthfully (*Lie* questions) or answered questions that required thinking (*Think* questions). Younger participants (7- and 9-year-olds) broke eye contact significantly more when lying compared with other conditions. Also, their averted gaze when lying differed significantly from their gaze display in other conditions. In contrast, older participants did not differ in their durations of eye contact or averted gaze across conditions. Participants' knowledge about eye gaze and deception increased with age. This knowledge significantly predicted their actual gaze behavior when lying. These findings suggest that with increased age, participants became increasingly sophisticated in their use of display rule knowledge to conceal their deception.

Introduction

The quest to uncover how people deceive extends beyond law enforcement to encompass numerous disciplines and professions such as philosophy, psychology, sociology, history, advertising, medicine, politics, and education (e.g., Barnes, 1994; Bok, 1978; Halligan, Bass, & Oakley, 2003; Harrigan, Rosenthal, & Scherer, 2005; Hartley & Karinch, 2005; Hausman, 2000; Shulman, 2007). Even laypersons have a keen interest in unraveling the mystery of deception. This universal interest in deception

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may stem from the fact that despite people's negative views, lying is a common part of interpersonal communication among adults. Evidence shows that adults tell lies on a daily basis (DePaulo & Kashy, 1998; DePaulo, Kashy, Kirkendol, Wyer, & Epstein, 1996).

Extensive research has focused on the telltale signs of deception and identified a so-called "deceiver stereotype" or commonsense beliefs that laypeople have regarding the signs that reveal deceit (e.g., DePaulo et al., 1996; Ekman, O'Sullivan, & Frank, 1999; Global Deception Research Team, 2006; Leathers, 1997). For example, liars are commonly believed to have lags in speech, to fidget, to break eye contact and look down, and to smile inappropriately (Akehurst, Köhnken, Vrij, & Bull, 1996; Global Deception Research Team, 2006; Leathers, 1997; Vrij & Semin, 1996; Zuckerman, Koestner, & Driver, 1981). However, despite knowledge of this deceiver stereotype, trained observers are no better at detecting lies than are untrained observers (Ekman & O'Sullivan, 1991; Leach, Talwar, Lee, Bala, & Lindsay, 2004). Both groups can detect lies only at or near chance levels (DePaulo, Zuckerman, & Rosenthal, 1980; Kraut & Poe, 1980; for a review, see Bond & DePaulo, 2006). Mann, Vrij, and Bull (2004) noted that in many cases people would be more accurate at detecting lies if they simply guessed.

Perhaps failure to accurately detect adults' lies is the result of an erroneous expectation that adults display deceptive cues consistent with the deceiver stereotype. The deceiver stereotype is widely known among adults (e.g., Global Deception Research Team, 2006; Leathers, 1997). It is possible that adult lie-tellers use their knowledge of the deceiver stereotype to conceal deceptive behaviors that are consistent with this stereotype and simulate behaviors associated with honesty. In so doing, they increase the likelihood of duping others who rely on the deceiver stereotype for lie detection. If this hypothesis is true, lie-tellers who have limited knowledge of this stereotype should display more of the behaviors prescribed by the stereotype. Thus, the lies of such naive lie-tellers should be readily detectable.

One approach to testing this hypothesis is to examine adults from cultures that hold different deceiver stereotypes. Unfortunately, a recent study involving participants from 75 countries on all continents of the world revealed that this deceiver stereotype is universally held (Global Deception Research Team, 2006), rendering this approach untenable. Another approach is to test this hypothesis by examining children's beliefs about deception and their actual lying behavior because the deceiver stereotype is presumably acquired during socialization in childhood. At younger ages, children might not have acquired knowledge about the deceiver stereotype; therefore, their behaviors when lying would be consistent with what is expected based on the stereotype. However, as age increases and children become increasingly knowledgeable about the deceiver stereotype, their deceptive behaviors may deviate more and more from what would be prescribed by the stereotype. The current study tested this possibility. Specifically, we focused on one major component of the deceiver stereotype, namely, the universal belief that honest people maintain eye contact, whereas liars break eye contact and look down (Global Deception Research Team, 2006; Leathers, 1997). The reason to focus on this particular aspect of the deceiver stereotype is that this belief is the most widely and consistently held one by people around the world (Global Deception Research Team, 2006; Leathers, 1997).

Despite this belief being widely accepted, there is inconsistent evidence to suggest that children and adults actually break eye contact and look down when lying. Some researchers (Barnlund, 1968; Exline & Greenberg, 1971, cited in Burns & Kintz, 1976; Exline, Thibaut, Hickey, & Gumpert, 1970) who examined adult gaze behavior when lying have reported that people maintained less eye contact when lying than when truth-telling, whereas other researchers have reported opposite results (Bond, Kahler, & Paolicelli, 1985; Burns & Kintz, 1976; Sitton & Griffin, 1981). In addition, there is little research examining children's gaze behavior when lying. Thus, the current eye gaze literature cannot address the question of whether there exists a linkage between eye gaze display and deception.

However, evidence suggests that there is a close relationship between eye gaze and other mental activities. For example, researchers have long established that direction of gaze alone can indicate a person's desires, preferences, and direction of attention (e.g., Argyle & Cook, 1976; Einav & Hood, 2006; Kleinke, 1986; Lee, Eskritt, Symons, & Muir, 1998). Abnormalities in eye gaze behavior are sometimes diagnostic markers for autism, schizophrenia, and depression (e.g., Phillips, Baron-Cohen, & Rutter, 1992; Rutter & Stephenson, 1972; Santarcangelo & Dyer, 1988). Although it is well established that adults believe that liars avert their gaze, extensive evidence shows that adult liars do