Original Article

Telling a convincing story: Richness in detail as a function of gender and information

Galit Nahari *, Merav Pazuelo

Department of Criminology, Bar Ilan University, Ramat Gan, Israel

ABSTRACT

We examined whether and how levels of richness in detail, a fundamental cue for truthfulness in the Reality Monitoring (RM) tool, change as a function of the interviewee's gender and his/her awareness of this indicator. We collected 160 true and false accounts, written by males and females. Half the participants were informed about the RM criteria, and were encouraged to include them in their accounts. Results demonstrated gender differences in levels of richness for uninformed participants. Specifically, uninformed-females provided better truthful accounts than uninformed-males, and differences in richness between truths and lies emerged only for uninformed-females. Gender differences in levels of richness were eliminated when participants were informed, and discrimination between lies and truths was no longer possible. These findings suggest that the interviewee's gender must be considered when using richness as an indicator for truthfulness, and that the indicator of richness is vulnerable to countermeasures.

© 2015 Society for Applied Research in Memory and Cognition. Published by Elsevier Inc. All rights reserved.

1. Introduction

One of the most popular verbal indicators for truthfulness is *richness in detail* (Vrij, 2008). The richer an account is perceived to be in spatial and temporal information, names of people and places, emotions, descriptions of visions, senses, sounds, tastes and smells, the more likely it is to be believed (Bell & Loftus, 1989; Johnson, 2006; Johnson, Foley, Suengas, & Raye, 1988). Not only do people perceive richness in detail as an indicator of truthfulness, truths have also been found to be richer in details than lies (DePaulo et al., 2003; Vrij, 2005, 2008). That is, richness in detail is both a subjective cue to truthfulness (i.e., individuals believe that richness in detail is associated with truthfulness), and an objective cue to truthfulness (i.e., richness in detail is actually associated with truthfulness). It is therefore not surprising that richness in detail is typically included in verbal veracity tools, including Reality Monitoring (RM; Sporer, 1997, 2004) as a prime example.

Based on the Reality Monitoring theory (Johnson & Raye, 1981), the RM approach assumes that truths which are obtained through perceptual processes, are more likely to be richer in detail and contain perceptual details (e.g., visions, sounds, smells, tastes),

contextual details (e.g., locations, times, spatial arrangement of people and objects), and affection (descriptions of how someone felt during the event). By contrast, lies are characterized by cognitive operational attributes, such as thoughts and reasons, which probably helped to generate them. In fact, five of the eight RM criteria for detecting lies (clarity, perceptual information, spatial information, temporal information, emotions; see Sporer, 2004; Vrij, 2008) are measuring components of richness in detail. Studies show that the accuracy rate of the RM lie detection approach is about 70%, and that this accuracy rate is similar for truths and lies (Vrij, 2008).

However, although truths are richer in detail than lies on average, it is inevitable that individuals differ from each other in the way they tell truths and lies. For example, Nahari, Vrij, and Fisher (2012) reported standard deviations of 91.35 (truth tellers) and 53.60 (liars) in the number of words spoken, which were large standard deviations compared to the total number of words spoken (243.14 by truth tellers and 129.20 by liars). This implies that there are large variations between individuals in the way they provide truthful or false accounts. A tendency to provide richer or poorer accounts is stable across situations (Nahari & Vrij, 2014) and thus may be related to the personal characteristics of the interviewee. Indeed, the few studies that have examined individual differences have revealed significant effects. For example, public self-consciousness and the ability to act were negatively correlated with RM scores (Vrij, Edward, & Bull, 2001), and high and low fantasy prone individuals gave different descriptions (in

* Corresponding author at: Department of Criminology, Bar Ilan University, Ramat Gan 52900, Israel. Tel.: +972 35318654.
   E-mail address: galit.nahari@biu.ac.il (G. Nahari).

terms of content characteristics) of incidents they had experienced (Merckelbach, 2004; Schelleman-Offermans & Merckelbach, 2010). Evidence of individual differences in the way people tell truths and lies imply that determining veracity by using RM (in which richness in detail is a fundamental component), without considering the language style of the interviewee, may lead to erroneous judgment. Therefore, it is important to continue with this line of research. The first purpose of the current study is to explore whether the tendency to provide rich or poor accounts is related to gender, a salient component of the individual's identity (Niedźwieńska, 2003).

1.1. Richness in detail and gender

Providing a rich account in terms of RM is related to verbal ability (e.g., Santtila, Roppola, Runtti, & Niemi, 2000), in a way that people with higher verbal ability can provide a richer account in comparison to people with lower verbal ability. There is no sufficient evidence for gender differences in verbal ability in general (see, Hyde, 2005), but empirical evidence indicates different language use between the genders. In Wardle, Cederbaum, and de Wit (2011) study females provided 138 more words than males on average in an interpersonal task (5-min talking with an experimenter about a significant person in their life). Niedźwieńska (2003) showed that although female and male autobiographical narratives were equal in length (i.e., number of words), females' narratives were more detailed and contained more descriptive details and emotions than males' narratives, and Ross and Holmberg (1992) found that wives possessed more vivid memories than their husbands regarding events in their own relationship. Similarly, Newman, Groom, Handelman, and Pennebaker (2008) who analyzed 14,000 texts collected from females and males showed that female language includes more senses (e.g., touch, hold, feel), hearing (e.g., heard, listen, sounds), motion verbs (e.g., walk, go) and emotions than males. These gender differences in language-use may be traced to early socialization: parent's communication style with their daughters is more elaborative than with their sons (Reese, Haden, & Fivush, 1996). Presumably, this tendency of females to produce longer and detailed accounts about past events enables them to provide better truthful accounts in terms of richness in detail compared to males. An interesting and neglected question is whether this tendency also enables females to provide better false accounts. The aim of the current study was to answer this question.

According to the RM approach, richness in detail is expected to appear in truthful, but not false, accounts (Sporer, 2004; Vrij, 2008). Furthermore, fabrication requires also visual vivid imagination (Sporer, 2004), and females have no advantage over males in this ability (Campos, 2014; McKelvie, 1995). It is then reasonable to anticipate an interaction between gender and veracity, in which the differences in language use between females and males will be reflected in truthful accounts (where richness in detail is expected to appear) but not in false accounts (where richness in detail is not expected to appear). Hence, we expected that truthful accounts would be richer in detail when provided by females than by males, while false accounts would be equally poor in detail when provided by males or females, and thus differences between truths and lies will be greater among females than among males.

1.2. Gender differences in richness in detail and information

There is empirical evidence showing that early preparation and information regarding the mechanism of verbal tools, at different levels, affects the verbal quality of accounts. For example, participants who received insight into the Criteria-Based Content Analysis (CBCA; Köhnken, 1996; Köhnken & Steller, 1988) criteria, and who were instructed to include those criteria in their truthful or deceptive statements, improved their CBCA scores (Caso, Vrij, Mann, &

Leo, 2006; Vrij, Akehurst, Soukara, & Bull, 2002; Vrij, Akehurst, Soukara, & Bull, 2004). Information regarding the CBCA criteria affected also the ability to discriminant lies from truths by RM among children: The differences between lies and truths were larger when the coaching was light than when it was heavy (Vrij et al., 2004). Leal, Vrij, Warmelink, Vernham, and Fisher (2015) showed a similar effect for less explicit informing: simple exposure of interviewees to an audiotape of a detailed account, as a model example (without elaborating the judgment indicator) influenced the amount of information provided by truth tellers and liars. If liars, as these studies showed, can change their language-use style (e.g., be more detailed) so easily to meet a truthful language style, one may assume that men are also able to change their language-use style and provide richer accounts. The second aim of the current study, therefore, is to explore whether the difference between the genders in the quality of their accounts decreases when the interviewees are aware of the importance of providing detail. Specifically, we expected a three-way interaction between veracity, gender and information regarding richness in detail, in which the anticipated differences in richness in detail between females and males, which were described above, would be greater among uninformed interviewees than among informed interviewees.

2. Method

2.1. Participants

A total of 160 undergraduates and graduates participated in the experiment (80 males and 80 females). Their mean age was 25.71 (SD = 3.11 years). All the participants were native Hebrew speakers and none of them had an academic or professional background in lie detection. All participants signed a consent form indicating that participation was voluntary and that they could withdraw from the experiment at any time without penalty. The participants (females and males) were randomly allocated to the four experimental conditions: informed truth-tellers, uninformed truth-tellers, informed liars, and uninformed liars, with 20 females and 20 males in each condition.

Twelve participants who did not follow the instructions (six participants who did not focus on a single event as requested; three participants who wrote unrealistic stories [e.g., conversation with a bear]; two participants in the lie experimental condition who wrote a true story; and one participant who described an event that occurred in his childhood rather than within the last three years as requested) were eliminated. These participants were replaced, so the total number of participants remained 160.

2.2. Procedure

The experimenter met the participants individually or in small groups (up to five participants in a group). In order to increase the participants' motivation, they were told that the experiment explores whether people can beat lie detection tools. Truth-tellers were required to describe in writing a real past-event that had occurred within the last three years, and liars were requested to describe in writing a completely imaginative event that had apparently occurred within the last three years, and which was not based on an event that had been read, heard or experienced in another time or location. The experimenter then continued by advising all the participants that the veracity of their stories would be tested by a lie detection expert, and encouraged them to appear convincing in their stories. There was no time limit on writing the stories.

Before writing the story, participants in the informed experimental conditions received written and oral explanations regarding the RM lie detection approach. They were told that their stories