Acta Psychologica 174 (2017) 1–8

Contents lists available at ScienceDirect

Acta Psychologica

journal homepage: www.elsevier.com/locate/actpsy

Insurance based lie detection: Enhancing the verifiability approach with a model statement component

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ARTICLE INFO

Article history:
Received 20 August 2016
Received in revised form 29 December 2016
Accepted 3 January 2017
Available online 13 January 2017

Keywords:
Insurance interviewing
lie detection
eliciting cues

ABSTRACT

Purpose: The Verifiability Approach (VA) is verbal lie detection tool that has shown promise when applied to insurance claims settings. This study examined the effectiveness of incorporating a Model Statement comprised of checkable information to the VA protocol for enhancing the verbal differences between liars and truth tellers.
Method: The study experimentally manipulated supplementing (or withholding) the VA with a Model Statement. It was hypothesised that such a manipulation would (i) encourage truth tellers to provide more verifiable details than liars and (ii) encourage liars to report more unverifiable details than truth tellers (compared to the no model statement control). As a result, it was hypothesized that (iii) the model statement would improve classificatory accuracy of the VA. Participants reported 40 genuine and 40 fabricated insurance claim statements, in which half the liars and truth tellers where provided with a model statement as part of the VA procedure, and half where provide no model statement.
Results: All three hypotheses were supported. In terms of accuracy, the model statement increased classificatory rates by the VA considerably from 65.0% to 90.0%.
Conclusion: Providing interviewee's with a model statement prime consisting of checkable detail appears to be a useful refinement to the VA procedure.

Individuals lie for many reasons, including for self-orientated financial gain (DePaulo, Kashy, Kirkendol, Wyer, & Epstein, 1996; Ekman, 1985; Vrij, 2008). Insurance fraud is deemed acceptable to many policyholders, with 20% of surveyed individuals admitting they would consider submitting an exaggerated or fabricated insurance claim in the future (Association of British Insurers [ABI], 2009). In response, the UK insurance industry invests considerable resources – over £200 million per year – in an attempt to combat fraud. Nevertheless, undetected insurance fraud in the UK is estimated to be in excess of £2.1 billion per year (ABI, 2009). It is therefore unfortunate that little research is conducted regarding lie detection within financial settings, with the majority of deception literature narrowly focusing upon police-suspect interviewing (Vrij & Granhag, 2012, 2014; Vrij, Mann, Leal, & Granhag, 2010).

Evidence suggests that the core theoretical conclusion derived from the wider deception literature (e.g., Vrij & Granhag, 2012; Vrij & Granhag, 2014, Vrij, Fisher & Blank, 2015) may also apply to insurance claims settings. That is, that the weak objective cue hypothesis (Hartwig & Bond, 2011), which implies that without active elicitation an insufficient number of reliable credibility cues is available to facilitate accurate deception detection (DePaulo et al., 2003; Levine, 2014; Vrij & Granhag, 2012), may also apply to insurance claims settings (Harvey, Vrij, Nahari, & Ludwig, 2016; Leal, Vrij, Warmelink, Vernham, & Fisher, 2015; Nahari & Vrij, 2014). Therefore, what appears to be required to improve lie detection accuracy is employing proactive interview protocols that impose manipulations to elicit and magnify cues to deception (Harvey et al., 2016; Leal et al., 2015; Vrij, Nahari, Isitt, & Leal, 2016). The purpose of the current study is to extend the embryonic research on verbal lie detection within the insurance claim domain by exploring a potential refinement of the Verifiability Approach (VA), a verbal veracity tool introduced by Nahari, Vrij and Fisher (2014a, 2014b). Harvey et al. (2016) demonstrated that providing interviewees' information about the VA's function is *necessary* to facilitate lie detection in the insurance claims setting using the VA. Extending that research, the current study explores a novel protocol to further *enhance* the VA's usefulness in insurance claims settings – model statement. Specifically, we tested the hypothesis that supplementing the VA with a 'tailored' model statement (a detailed example statement comprised of checkable information) to actively prime claimants to provide statements with many verifiable details will facilitate superior lie detection with the VA.

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http://dx.doi.org/10.1016/j.actpsy.2017.01.001
0001-6918/

1. The verifiability approach

The VA is a verbal veracity tool that examines the frequency of checkable details disclosed in suspect's statements during interviews (Nahari, Leal, Vrij, Warmelink, & Vernham, 2014; Nahari et al., 2014b). According to the VA, liars and truth tellers exercise different verbal strategies in respect to checkable information (Harvey et al., 2016; Vrij et al., 2016). Truth tellers tend to be verbally forthcoming, freely disclosing checkable details they can remember (Nahari et al., 2014a; see also Hartwig, Anders Granhag, & Strömwall, 2007; Hartwig, Granhag, Stromwall, & Doering, 2010). In contrast, according to the VA, in interview settings liars are confronted by an information management dilemma and their verbal behaviour is constrained by two conflicting motivations (Nahari et al., 2014a, 2014b). First, liars are motivated to convey an honest impression. To maximise their chance of being judged as credible they wish to provide statements rich in detail (Hartwig et al., 2007; Nahari, Vrij, & Fisher, 2012; Masip & Herrero, 2013; Strömwall, Hartwig, & Granhag, 2006), as statements richer in detail are more likely to be judged as credible (Bell & Loftus, 1989; Johnson & Raye, 1981; Johnson, Foley, Suengas, & Raye, 1988). Second, liars are motivated to minimise the investigator's opportunities to check and potentially falsify their statement, exposing their deception (Masip & Herrero, 2013; Nahari et al., 2012, 2014). The latter makes sense as investigators frequently check the veracity of what is disclosed by comparing statements to evidence (e.g., Hartwig, Granhag, Strömwall, & Vrij, 2005). According to the VA, a potential solution to the information management dilemma is for liars to strategically withhold disclosing checkable detail. This assumption has received considerable empirical support and both the frequency and relative percentage of verifiable details have emerged as a promising verbal cue to deception (Harvey et al., 2016; Nahari et al., 2014a, 2014b; Nahari, Leal et al., 2014; Vrij et al., 2016).

The 'Information Protocol' (IP; Nahari et al., 2014b; Harvey et al., 2016) is a component of the full VA procedure (Harvey et al., 2016; Vrij, Nahari et al., 2016; Nahari & Vrij, 2014) and informs interviewee's of the importance of including checkable information in their statements (see Table 1 for a detailed breakdown of the individual IP components).

Originally, the IP was developed to examine the robustness of the VA to countermeasures, i.e., whether informing participants about the VA's functionality impairs the efficiency of the test (Nahari et al., 2014b). Research indicates that the VA is not simply resistant to countermeasures, informing interviewees about how the VA works actually *increases* its accuracy (Nahari et al., 2014b). That is, the number of verifiable details reported by liars does not vary as a function of the IP provision, but does vary among truth tellers, with truth tellers providing more verifiable details when an IP is provided compared to when no IP is provided (Nahari et al., 2014b; Harvey et al., 2016). In the insurance claims setting, the provision of the IP appears critical to the ability of the VA to accurately distinguish between fabricated and genuine statements (Harvey et al., 2016). When no IP is utilised the VA has been unable to accurately classify liars and truth tellers, but when the IP is utilised the VA can successfully discriminate between liars and truth tellers (Harvey et al., 2016; Nahari et al., 2014b; Vrij et al., 2016).

Table 1
Breakdown of the IP components and instructions.

IP Component	IP Instruction
(I) Reporting	We know from research that liars prefer to avoid providing details that can be verified whereas truth tellers prefer to provide details that can be verified.
(II) Analysis	Therefore the analyst will check carefully to what extent the details you provide can be verified.
(III) Definition	Verifiable details are i) activities carried out with identifiable or named persons who the interviewer can consult, ii) activities that have been witnessed by identifiable or named persons who the interviewer can consult, iii) activities that the interviewee believes may have been captured on CCTV and iv) activities that may have been recorded and documented, such as using debit cards, mobile phones, or computers.
(IV) Falsifiability	The analyst may check the occurrence of some or all of the details provided in the statements after the interview.

Note: Adapted from Nahari, G., Vrij, A., & Fisher, R. P. (2014b). The verifiability approach: Countermeasures facilitate its ability to discriminate between truths and lies. Applied Cognitive Psychology, 28, 122–128. doi:10.1002/acp.2974.

2. Encouraging suspects to say more

Verbal differences between liars and truth tellers are magnified if interviewees are encouraged to provide longer statements (Leal et al., 2015; Mann et al., 2013; Shaw et al., 2015; Vrij, Mann, Kristen, & Fisher, 2007, Vrij & Granhag, 2012, Vrij & Granhag, 2014). Truth tellers do not initially say all they know (Vrij, Hope, & Fisher, 2014) and there is room for them to provide more information if encouraged to do so. Critically, liars may not be able to give as much detail as truth tellers, because they lack the imagination to provide a wealth of detail that also sounds plausible or they may reluctant to do so because they fear that these additional details may provide leads to investigators that can expose their deception (Vrij, 2015). The latter point particularly applies to verifiable detail, because truth tellers can be forthcoming with verifiable detail, whereas liars must be avoidant with verifiable detail (Nahari et al., 2014a, 2014b; Vrij et al., 2016). As such, eliciting longer statements from suspects should plausibly enhance the difference between liars and truth tellers in terms of verifiable detail.

One potential means of eliciting additional information from suspects within the VA framework is via a model statement prime (Leal et al., 2015). A model statement is a detailed example of an unrelated topic to that of the interview, designed to modify the interviewee's expectations of what is required from their statement (Leal et al., 2015). Social comparison theory provides a theoretical explanation for the working of a model statement in interview settings (Festinger, 1954, see also Cialdini's social proof (Cialdini, 1994)), and states that in the absence of objective information, people will compare themselves to others. This means that in an interview setting where objective information about how much detail is required is not available, interviewees will use the model statement as a point of reference, and if the model statement is detailed, they will become detailed themselves. In alignment with this, research has shown that providing interviewees with model statements containing many details made interviewees to calibrate their verbal output and to incorporate many details into their own statements (Bogaard, Meijer, & Vrij, 2014; Leal et al., 2015). Model statements can, in theory, be constructed to incorporate specific types of detail. As such, a model statement that contains many verifiable details may result in a divergence of verbal behaviour between truth tellers and liars with respect to verifiable detail.

Theoretically, truth teller's verbal behaviour is a function of the 'phenomenology of innocence' (Jordan & Hartwig, 2013). Truth tellers believe their innocence is self-evident, known as the illusion of transparency (Gilovich, Savitsky, & Medvec, 1998), and they thus freely disclose information, adopting a 'tell it as it is' verbal strategy (Hartwig et al., 2007; Hartwig et al., 2010; Strömwall et al., 2006; Vrij et al., 2010). According to the VA, truth tellers can freely disclose any verifiable detail they can recall (Nahari et al., 2014a, 2014b). Supplementing the full VA procedure, including the information protocol, with a model statement that contains many verifiable details (henceforth; verifiable model statement) may elicit additional checkable details (compared to the full VA) from truth tellers for two reasons. First, a model statement may motivate interviewee's to disclose more detail generally, and truth tellers to disclose more verifiable details specifically. Second, a model statement containing multiple examples of verifiable details may provide both liars and truth tellers with a more elaborate and concrete understanding of what information is and is not verifiable. According to the former 'motivation hypothesis', whereas the VA's IP manipulation primarily allows truth tellers to better calibrate the *type* of information they should disclose (Harvey et al., 2016; Nahari et al., 2014b), the verifiable model statement